

AN EVALUATION OF THE EXTENT TO WHICH USERS' INTERNET SERVICE UPTAKE IS INFLUENCED BY CUSTOMER PERCEPTIONS OF QUALITY INTERNET SERVICES: A STUDY IN ABUJA, THE FEDERAL CAPITAL TERRITORY, NIGERIA

By

AYODELE ROWLAND ADEYEMI

A thesis submitted in partial fulfilment of the University's requirements for the Degree of Doctor of Philosophy

January 2022

**Buckinghamshire New University
Coventry University**

COPYRIGHT

This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognize that its copyright rests with its author under the terms of the United Kingdom Copyright Acts. No quotation from the thesis and no information derived from it may be published without proper acknowledgement.

ABSTRACT

This research critically evaluates the extent to which users' Internet service uptake is influenced by customer perceptions of quality Internet services. Five research objectives have been defined, namely: (i) Investigate the extent to which ISPs' service performance relates to customer satisfaction. (ii) Examine the extent to which the interactions between ISPs' service performance and moderators influences customer satisfaction. (iii) Examine the relationship between customer satisfaction and the behavioural intention of customers. (iv) Determine the extent of the relationship between ISPs' service performance and the behavioural intention of customers via the mediation of customer satisfaction. (v) Determine the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and the behavioural intention of customers.

It contributes to knowledge by providing a framework and methodology that shows how customer perception of ISPs' service performance influences customer satisfaction and behavioural intention (customer loyalty). It shows that the interactions of ISPs' service performance with moderators have an influence on customer satisfaction and behavioural intention that has not been considered in previous studies. It also reveals that adequate consideration should be given to functional and technical qualities in consonance with the quality dimensions.

Pragmatic philosophy was adopted with mixed methods conducted sequentially (i.e., qualitative, quantitative and qualitative). Data were obtained through exploratory study conducted via focus groups; questionnaires administered to 1504 participants; and 25 participants interviewed. The quantitative data was analysed using descriptive and inferential statistics such as correlation and regression analysis, while qualitative data was examined through thematic analysis.

The study confirms that ISPs' service performance dimensions and the relationships amongst the variables tested in line with the research objectives are relevant and appropriate. However, it reveals the key ISPs' service performance dimensions as network quality, information quality, security and privacy that predict customer satisfaction and behavioural intention. Statistically, customer service and technical support does not significantly influence customer satisfaction.

Keywords: ISPs' Service Performance, Service Quality, Internet Service Provision, Customer Perceptions, Customer Satisfaction, Behavioural Intention, Internet Service Uptake, ISPs (Internet Service Providers), Internet Bandwidth and Prices of Internet Service Users' Access.

LIST OF CONTENTS

ABSTRACT	1
LIST OF ILLUSTRATIONS	7
LIST OF TABLES	8
ACKNOWLEDGEMENTS	10
AUTHORS DECLARATION	11
CHAPTER ONE	12
1.0 INTRODUCTION	12
1.1 BACKGROUND TO THE STUDY	12
1.1.1 THE IMPORTANCE OF INTERNET SERVICES FOR SOCIO-ECONOMIC DEVELOPMENT	12
1.1.2 CUSTOMER SATISFACTION AND EXPECTATIONS OF SERVICE PERFORMANCE AS DRIVERS OF INTERNET UPTAKE	14
1.1.3 NIGERIA REGION AND THE INTERNET SERVICE PROVIDERS (ISPs)	15
1.1.4 RATIONALE FOR FCT ABUJA, NIGERIA AND ITS GLOBAL RELEVANCE	17
1.2 RATIONALE FOR STUDY	20
1.3 AIM OF THE RESEARCH	22
1.4 RESEARCH QUESTIONS	22
1.5 RESEARCH OBJECTIVES	22
1.6 RESEARCH PROJECT RISKS AND MITIGATING ACTIONS	23
1.7 THESIS STRUCTURE AND MAPPING OF RESEARCH ACTIONS TO OBJECTIVES	24
CHAPTER TWO	26
2.0 LITERATURE REVIEW	26
2.1 INTRODUCTION	26
2.2 ISPS' SERVICE PERFORMANCE	26
2.3 ESTABLISHING ISPS' SERVICE PERFORMANCE DIMENSIONS	30
2.4 CUSTOMER PERCEPTION, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY	38
2.4.1 CUSTOMER PERCEPTION	38
2.4.2 CUSTOMER SATISFACTION	40
2.4.3 CUSTOMER LOYALTY	43
2.4.4 ESTABLISHING THE RELATIONSHIP BETWEEN CUSTOMER PERCEPTION OF SERVICE QUALITY, CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)	45
2.5 ESTABLISHING THE RELATIONSHIP AMONG CUSTOMER PERCEPTION OF ISPS' SERVICE PERFORMANCE, CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)	46
2.6 MODERATORS - ISSUES MODERATING OR LIMITING INTERNET SERVICE PROVISION AND THEIR INFLUENCE ON CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION	48
2.6.1 INTERNET BANDWIDTH	50
2.6.2 PRICE OF INTERNET USER'S ACCESS	50
2.7 DEMOGRAPHIC AS CONTROL VARIABLES	51
2.8 CONCEPTUAL FRAMEWORK	52
2.9. RESEARCH HYPOTHESIS	54
2.10 KNOWLEDGE GAP	64
2.11 SUMMARY OF THE CHAPTER	66
CHAPTER THREE	68
3.0 RESEARCH METHODOLOGY	68
3.1 INTRODUCTION	68

3.2	PHILOSOPHY AND PARADIGM IN THIS RESEARCH STUDY	68
	3.2.1 PRAGMATIC PHILOSOPHY	70
	3.2.2 ONTOLOGY, EPISTEMOLOGY, AXIOLOGY AND METHODOLOGY	71
3.3	RESEARCH APPROACH.....	72
	3.3.1 DEDUCTIVE AND INDUCTIVE REASONING APPROACHES	72
3.4	RESEARCH METHODS.....	73
	3.4.1 MIXED METHODS.....	73
	3.4.2 QUALITATIVE METHOD	74
	3.4.3 QUANTITATIVE METHOD	75
3.5	RESEARCH STRATEGY.....	75
	3.5.1 SURVEY STRATEGY	76
3.6	RESEARCH ACTIVITIES IN THIS STUDY	76
3.7	RESEARCH POPULATION, SAMPLE SIZE AND SAMPLING TECHNIQUES.....	77
	3.7.1 RESEARCH POPULATION.....	77
	3.7.2 STUDY SAMPLE SIZE	77
	3.7.2.1 DETERMINING SAMPLE SIZE FOR THIS RESEARCH STUDY	78
	3.7.3 RESEARCH SAMPLING TECHNIQUE	79
	3.7.3.1 PROBABILITY SAMPLING.....	79
	3.7.3.2 NON-PROBABILITY SAMPLING.....	79
3.8	RESEARCH DESIGN	80
3.9	ADOPTING/ADAPTING SCALES FOR ISPs' SERVICE PERFORMANCE, CUSTOMER SATISFACTION, BEHAVIOURAL INTENTION (CUSTOMER LOYALTY) AND THE MODERATORS ...	82
3.9.1	ISPS' SERVICE PERFORMANCE SCALE	82
	3.9.2 SCALE FOR CUSTOMER SATISFACTION, CUSTOMER LOYALTY (BEHAVIOURAL INTENTION) AND COST OR PRICE OF INTERNET USERS' ACCESS	83
	3.9.3 SCALE FOR INTERNET BANDWIDTH CAPACITY AS A MODERATOR	85
3.10	DATA SOURCES.....	85
	3.10.1 DESIGN AND ADMINISTRATION OF QUESTIONNAIRE	86
	3.10.1.1 FOCUS GROUP	87
	3.10.1.2 QUESTIONNAIRES	87
	3.10.1.3 SCALING OF QUESTIONS.....	88
	3.10.1.4 INTERVIEWS.....	88
	3.10.2 QUALITY CONTROL OF DATA COLLECTION	90
3.11	METHODS OF DATA ANALYSIS.....	90
	3.11.1 THEMATIC ANALYSIS	93
3.12	VALIDITY AND RELIABILITY OF DATA	94
3.13	RATIONALES FOR THE CHOICE OF METHODOLOGY ADOPTED IN THIS RESEARCH	96
	3.13.1 RATIONALE FOR THE CHOICE OF PHILOSOPHY/ PARADIGM	96
	3.13.2 CHOICE OF METHOD AND APPROACH.....	98
	3.13.3 RATIONALE FOR THE CHOICE OF SAMPLING STRATEGY AND TECHNIQUES ...	98
3.14	RESEARCH ETHICS.....	99
3.15	EXPLORATORY STUDY.....	102
3.16	PILOT TEST OF QUESTIONNAIRE	102
3.17	RESEARCH SUMMARISED METHODOLOGICAL DESIGN	102
3.18	SUMMARY OF CHAPTER	103
CHAPTER FOUR.....		104
4.0	EXPLORATORY STUDY.....	104
4.1	INTRODUCTION	104
4.2	FOCUS GROUPS OF THE EXPLORATORY STUDY	104
	4.2.1 DOMESTIC (INDIVIDUAL) INTERNET SERVICE SUBSCRIBERS.....	105
	4.2.1.1 DOMESTIC INTERNET SUBSCRIBER PARTICIPANT PROFILES.....	105
	4.2.1.2 REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG DOMESTIC INTERNET SUBSCRIBERS	105
	4.2.2 INSTITUTION/BUSINESS INTERNET SERVICE SUBSCRIBERS	110
	4.2.2.1 INSTITUTION/BUSINESS SUBSCRIBER PARTICIPANTS' PROFILE.....	110
	4.2.2.2 REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG INSTITUTION/BUSINESS INTERNET SERVICE SUBSCRIBERS.....	111

4.2.3	INTERNET SERVICE PROVIDERS (ISPs)	115
4.2.3.1	REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG ISPs	115
4.2.4	POLICY AND REGULATORY AGENCIES	119
4.2.4.1	REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG POLICY AND REGULATORY AGENCIES	119
4.3	FINDINGS FROM FOCUS GROUP STUDY	122
CHAPTER FIVE		127
5.0	DATA PRESENTATION, ANALYSIS AND FINDINGS	127
5.1	INTRODUCTION	127
5.2	QUANTITATIVE ANALYSIS AND FINDINGS (QUESTIONNAIRE SURVEY)	127
5.2.1	RELIABILITY ANALYSIS OF VARIABLES	127
5.2.2	UNIVARIATE ANALYSIS	131
5.2.2.1	DESCRIPTIVE ANALYSIS OF DEMOGRAPHIC VARIABLES	131
5.2.2.2	DESCRIPTIVE ANALYSIS OF ISPS' SERVICE PERFORMANCE	132
5.2.2.3	DESCRIPTIVE ANALYSIS OF CUSTOMER SATISFACTION ON ISPS' SERVICE PERFORMANCE	137
5.2.2.4	DESCRIPTIVE ANALYSIS OF THE INFLUENCE OF INTERNET BANDWIDTH ON CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY) ..	139
5.2.2.5	DESCRIPTIVE ANALYSIS OF THE INFLUENCE OF PRICES OF INTERNET USERS' ACCESS ON CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)	142
5.2.2.6	DESCRIPTIVE ANALYSIS OF BEHAVIOURAL INTENTION OF CUSTOMERS (CUSTOMER LOYALTY)	144
5.2.3	BIVARIATE ANALYSIS - CORRELATION ANALYSIS OF VARIABLES	147
5.2.4	MULTIVARIATE ANALYSIS	151
5.2.4.1	OBJECTIVE ONE: INVESTIGATE THE EXTENT TO WHICH ISPS' SERVICE PERFORMANCE RELATES TO CUSTOMER SATISFACTION IN FCT ABUJA, NIGERIA ...	152
5.2.4.2	OBJECTIVE TWO: EXAMINE THE EXTENT TO WHICH THE INTERACTION OF ISPS' SERVICE PERFORMANCE AND MODERATORS (I.E., INTERNET BANDWIDTH AND PRICES OF INTERNET USERS' ACCESS) INFLUENCE CUSTOMER SATISFACTION IN FCT ABUJA, NIGERIA	154
5.2.4.3	OBJECTIVE THREE: EXAMINE THE EXTENT OF THE RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION IN FCT ABUJA, NIGERIA.	157
5.2.4.4	OBJECTIVE FOUR: DETERMINE THE EXTENT OF THE RELATIONSHIP BETWEEN ISPS' SERVICE PERFORMANCE AND BEHAVIOURAL INTENTION OF CUSTOMERS VIA THE MEDIATION OF CUSTOMER SATISFACTION	158
5.2.4.5	OBJECTIVE FIVE: DETERMINE THE EXTENT TO WHICH CUSTOMER SATISFACTION MEDIATES THE MODERATED RELATIONSHIPS BETWEEN ISPS' SERVICE PERFORMANCE AND BEHAVIOURAL INTENTION OF CUSTOMERS IN FCT ABUJA, NIGERIA	160
5.3	QUALITATIVE ANALYSIS AND FINDINGS	191
5.3.1	RESPONDENT PROFILES	192
5.3.2	ISPS' SERVICE PERFORMANCE	192
5.3.3	CUSTOMER SATISFACTION	197
5.3.4	BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)	201
5.3.5	INTERNET BANDWIDTH	209
5.3.6	PRICES OF INTERNET USERS' ACCESS	224
CHAPTER SIX		233
6.0	FINDINGS DISCUSSION, CONCLUSION AND RECOMMENDATION	233
6.1	INTRODUCTION	233
6.2	ISPS' SERVICE PERFORMANCE RELATIONSHIP WITH CUSTOMER SATISFACTION	233
6.3	THE INTERACTION OF ISPS' SERVICE PERFORMANCE AND MODERATORS (INTERNET BANDWIDTH AND PRICES OF INTERNET USERS' ACCESS) INFLUENCE ON CUSTOMER SATISFACTION	236

6.4	THE RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION	239
6.5	THE RELATIONSHIP OF ISPS' SERVICE PERFORMANCE WITH BEHAVIOURAL INTENTION OF CUSTOMERS (CUSTOMER LOYALTY) VIA THE MEDIATION OF CUSTOMER SATISFACTION	240
6.6	THE EXTENT TO WHICH CUSTOMER SATISFACTION MEDIATES THE MODERATED RELATIONSHIPS BETWEEN ISPS' SERVICE PERFORMANCE AND BEHAVIOURAL INTENTION OF CUSTOMERS	242
6.7	FRAMEWORK AFTER RESEARCH ANALYSIS/TESTING	243
6.8	CONTRIBUTION TO KNOWLEDGE	247
6.9	IMPLICATIONS	248
6.9.1	POLICY MAKERS/IMPLEMENTERS	249
6.9.2	ACADEMICS AND RESEARCHERS	249
6.9.3	CIVIL SOCIETY AND OTHER STAKEHOLDERS	249
6.9.4	SERVICE ORGANISATIONS/SERVICE MANAGERS	250
6.10	REFLEXIVITY ON THE ROLE OF THE RESEARCHER	250
6.11	LIMITATION	251
6.12	SUMMARY OF FINDINGS	253
6.13	CONCLUSION	256
6.14	RECOMMENDATION FOR FUTURE RESEARCH	257
	REFERENCES	258
	APPENDICES	309
	APPENDIX I	309
	APPENDIX II	312
	APPENDIX III	314
	APPENDIX IV	317
	APPENDIX V	319
	APPENDIX VI	359
	APPENDIX VII	362
	APPENDIX VIII	364
	APPENDIX IX	388
	APPENDIX XI	481

LIST OF ILLUSTRATIONS

Figure 2.1: Conceptual Framework for ISP’s Service Performance adapted from the study by Kim et al. (2007)	31
Figure 2.2: Service Evaluation Construct Effects on Behavioural Intentions by Vlachos and Vrechopoulos (2008)	32
Figure 2.3 :Expectations – disconfirmation model for ISP (Erevelles et al., 2003).....	41
Figure 2.4: Effects of Perceived Service Quality of Audit Firms on Satisfaction and Behavioural Intentions (Turk and Avcilar, 2009)	45
Figure 2.5 : Interrelationship among ISPs’ Service Performance, Customer Satisfaction & Behavioural Intention (Adapted by the Research Study from Literature Review).....	48
Figure 2.6: Conceptual Framework for the Evaluation of the Extent to which Users’ Internet Service Uptake is influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria.	53
Figure 3.1: Research Design for this Study.....	81
Figure 5.1: Thematic Map for the Analysis of Semi-Structured Interviews Relating to ISPs’ Service Performance	193
Figure 5.2 :Thematic Map for Analysis of Semi-Structured Interviews relating to customer satisfaction with respect to ISPs’ Service Performance.....	198
Figure 5.3: Thematic Map for Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs’ Service Performance	202
Figure 5.4:Thematic Map for Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs’ Service Performance (Continued).....	203
Figure 5.5: Thematic Map for Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs’ Service Performance (Continued).....	204
Figure 5.6 :Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance	210
Figure 5.7: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance (Continued)	211
Figure 5.8: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance (Continued)	212
Figure 5.9: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance (Continued)	213
Figure 5.10 : Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance (Continued)	214
Figure 5.11: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance (Continued)	215
Figure 5.12:Thematic Map for Analysis of Semi-Structured Interviews relating to Prices of Internet Users’ Access	225
Figure 5.13: Thematic Map for Analysis of Semi-Structured Interviews relating to Prices of Internet Users’ Access (Continued).....	226
Figure 5.14 :Thematic Map for Analysis of Semi-Structured Interviews relating to Prices of Internet Users’ Access (Continued).....	227
Figure 6. 1: Framework for Evaluation of the Extent to which Users’ Internet Service Uptake is influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria	247

LIST OF TABLES

Table 1.1: Active Internet Subscription indicating ISPs' Market Share between 2020 and 2021	17
Table 3. 1: Difference between the Four Research Philosophies (Saunders <i>et al.</i> , 2009)	69
Table 3. 2: Research Summarised Methodological Design	103
Table 5.1: Reliability Analysis of Variables – Cronbach	128
Table 5.2: KMO and Bartlett's Test	130
Table 5.3: Summary of Demographic	131
Table 5.4: Summary of Descriptive Analysis of ISPs' Service Performance in FCT, Abuja, Nigeria	132
Table 5.5: Summary of Descriptive Analysis of Customer Satisfaction on ISPs' Service Performance	138
Table 5.6: Descriptive Analysis of the Influence of Internet Bandwidth on Customer Satisfaction and Behavioural Intention (Customer Loyalty)	140
Table 5.7: Descriptive Analysis of the Influence of Prices of Internet Users' Access on Customer Satisfaction and Behavioural Intention (Customer Loyalty)	142
Table 5.8: Summary of Descriptive Analysis of Behavioural Intention of Customers (Customer Loyalty)	144
Table 5.9: Correlation Matrix of ISP's Service Performance and Customer Satisfaction	148
Table 5.10: Correlation Matrix of Behavioural Intention, Internet Bandwidth, Prices of Internet Users' Access with Customer Satisfaction	149
Table 5.11: The Extent to which ISP's Service Performance Relates to Customer Satisfaction in FCT Abuja, Nigeria	152
Table 5.12: The Extent to which the Interactions of ISPs' Service Performance and Moderators (i.e., Internet Bandwidth and Prices of Internet Users' Access) Influences Customer Satisfaction in FCT Abuja, Nigeria	154
Table 5.13: The Extent of the Relationship Between Customer Satisfaction and Behavioural Intention In FCT Abuja, Nigeria	157
Table 5.14: The Extent of the Relationship between ISPs' Service Performance and Behavioural Intention of Customers via the Mediation of Customer Satisfaction in FCT Abuja, Nigeria	158
Table 5.15: Determine the Extent to which Customer Satisfaction Mediates the Moderated Relationships between ISP's' Service Performance and Behavioural Intention of Customers in FCT Abuja, Nigeria	160
Table 5.16: Analysis of Hypotheses H1a - H1d	163
Table 5.17: Overall ISPs' Service Performance is Significantly Related to Customer Satisfaction	165
Table 5.18: The Interaction of Network Quality and Internet Bandwidth Significantly Influences Customer Satisfaction	166
Table 5.19: The Interaction of Customer Service and Technical Support, and Internet Bandwidth Significantly Influences Customer Satisfaction	167
Table 5.20: The Interaction of Information Quality and Internet Bandwidth Significantly Influences Customer Satisfaction	168
Table 5.21: The Interaction of Security and Privacy, and Internet Bandwidth Significantly Influences Customer Satisfaction	169
Table 5.22: The Overall Interaction of ISPs' Service Performance and Internet Bandwidth Significantly Influences Customer Satisfaction	169
Table 5.23: The Interaction of Network Quality and Price of Internet Users' Access Significantly Influences Customer Satisfaction	171

Table 5.24: The Interaction of Customer Service and Technical Support, and Price of Internet Users' Access Significantly Influences Customer Satisfaction.....	171
Table 5.25: The Interaction of Information Quality and Price of Internet Users' Access Significantly Influences Customer Satisfaction.....	172
Table 5.26: The Interaction of Security and Privacy, and Price of Internet Users' Access Significantly Influences Customer Satisfaction.....	173
Table 5.27: The Overall Interaction of ISPs' Service Performance and Prices of Internet Users' Access Significantly Influences Customer Satisfaction.....	173
Table 5.28: Customer Satisfaction is Significantly Related to Behavioural Intention.....	174
Table 5.29: Network Quality is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction.....	175
Table 5.30 : Customer Service and Technical Support is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction.....	176
Table 5.31: Information Quality is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction.....	177
Table 5.32 : Security and Privacy is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction.....	178
Table 5.33: Overall ISPs' Service Performance is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction.....	179
Table 5.34: The Interaction of Network Quality and Internet Bandwidth Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction.....	180
Table 5.35 : The Interaction of Customer Service and Technical Support and Internet Bandwidth Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	182
Table 5.36: The Interaction of Information Quality and Internet Bandwidth Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	183
Table 5.37: The Interaction of Security and Privacy, and Internet Bandwidth Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	184
Table 5.38: The Interaction of Overall ISPs' Service Performance and Internet Bandwidth Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	185
Table 5.39: The Interaction of Network Quality and Price of Internet Users' Access Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction.....	186
Table 5.40: The Interaction of Customer Service and Technical Support, and Prices of Internet Users' Access Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	188
Table 5.41: The Interaction of Information Quality and Price of Internet Users' Access Significantly Influence Behavioural Intention via the Mediation of Customers' Satisfaction.....	189
Table 5.42: The Interaction of Security and Privacy, and Price of Internet Users' Access Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	190
Table 5.43: The Interaction of Overall ISPs' Service Performance and Price of Internet Users' Access Significantly Influences Behavioural Intention via the Mediation of Customer Satisfaction.....	191
Table 5.44: The Summary of Participants' Comments in Respect of ISPs' Service Performance indicating the numbers of effects.....	196
Table 5.45: Summary of Analysis of Semi-Structured Interviews relating to customer satisfaction with respect to ISPs' Service Performance.....	200
Table 5.46: Summary of Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs' Service Performance.....	208
Table 5.47: Summary of Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance.....	220
Table 5.48: Summary of Analysis of Semi-Structured Interviews relating to relating to the Prices of Internet Users' Access.....	230

ACKNOWLEDGEMENTS

I express deep appreciation to the Almighty God who sustained and granted me journey mercies from Nigeria to United Kingdom on several occasions throughout my academic pursuit.

My gratitude to my dear wife and children, who stood by me emotionally in addition to bearing my absence, deserves my acknowledgement.

Special thanks to my supervisors, Prof. Derek Godfrey, Prof. Timothy Oyebisi, Dr Richard Mather, Dr Kevin Maher and Dr Ali Bakir whose meaningful comments and observations contributed to the quality of this work. My profound appreciation goes to Laura Bray, the Post Graduate Research (PGR) Registrar who has contributed immensely in making this program a success.

My gratitude also goes to Miss Aarinola Okusanya and Mr Folorunsho Mesele who assisted in the arrangement of the Focus Group Discussions.

AUTHORS DECLARATION

I declare that this thesis and the work presented in it are my own and have been generated by me as the result of my own original research.

I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University.
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
3. Where I have consulted the published work of others, this is always clearly attributed.
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
5. Where elements of this work have been published or submitted for publication prior to submission, this is identified, and references given at the end of the thesis.
6. This thesis has been prepared in accordance with the Coventry University and Buckinghamshire New University.
7. I confirm that if the submission is based upon work that has been sponsored or supported by an agency or organisation that I have fulfilled any right of review or other obligations required by such contract or agreement.

Ayodele Rowland Adeyemi

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Globally, the efficient use of Information and Communication Technology (ICT), driven by high-speed Internet access, is largely accepted as being key to promoting the productivity and innovation that has provided significant impact on socioeconomic development of business environments or areas (Musingafi and Zebron, 2014). The socio-economic importance of ICT infrastructure such as the Internet network is enormous in this age of information and transnational communication (Anie, 2011). It is a key enabler for achieving national and international developmental goals as it provides vital ingredients for a healthy and growing economy, which has become the backbone of business activity, productivity, trade and social development (Anie, 2011; ITU, 2013a).

1.1.1 THE IMPORTANCE OF INTERNET SERVICES FOR SOCIO-ECONOMIC DEVELOPMENT

The revolution of telecommunications, which includes the Internet, has provided a positive and significant impact on the economic growth of developing countries (Muramalla and Gawad, 2014). The importance of the Internet to socio-economic development is enormous, as *“it provides the channel for information sharing and effective business as well as serving as a tool for development”* (Koliouška *et al.*, 2013). It has significantly enhanced the engagement of the developing continents like Africa with the world economy (Murphy *et al.*, 2014). Thus, it is an essential component of everyday social and business lives that has changed the conventional methods of buying and selling (Bughin *et al.*, 2011).

The Internet has created information highways of high-speed electronic data exchange by which it is changing how people communicate, become informed or do business and, at present, it is reducing inequalities of opportunity between rural and urban centres by delivering educational programmes to remote locations (Anie, 2011). This has helped in

communicating knowledge through e-learning, e-training, e-library and research activities, thereby allowing education and research resources to be shared at national, regional and international levels (Kundishora, 2010). It also provides a platform that allows interactions among intergovernmental institutions, transnational and non-governmental organisations in a global Internet governance ecosystem (Nanette and Meryem, 2015).

A study undertaken by Bahrini and Qaffas (2019) confirmed that ICTs, which include Internet usage and broadband adoption, drive the economic growth in a society. This corroborates the findings of Lee *et al.* (2017), which shows that the rate of Information Technology diffusion correlated with human progress that includes economic development and political and civil activities. Its undisputed force for economic growth and social change has not only released new forms of connectivity but has also provided an opening for new forms of innovation, entrepreneurship and social good (Dalberg, 2013). Also, its enormous potential stimulates the emergence and promotion of new business paradigms, such as electronic business (e-business) and electronic commerce (e-commerce), which are significant catalysts for restructuring commercial activities and business development strategies for economic growth and competitiveness (Apăvăloaie, 2014).

Moreover, its influence on politics, culture, education and other social dimensions results in significant downstream benefits, such as job creation, increased uptake of technologies and development of work skills, ease of communication, trade expansion, poverty reduction, health, education and sustainable development (Ogunkunle and Fomsi, 2010; Hafiz *et al.*, 2013).

For regions to benefit from a global Internet economy, i.e., one where the economic activities are directly associated with Internet use, they must have access to the Internet and the means to exploit its use (OECD, 2016). This in turn requires investment in

infrastructure and expenditure to promote the development of national Internet activity (Nyirenda-Jere and Biru, 2015). The Internet economy involves businesses that provide Internet services, those that exploit services, including other stakeholders who in various ways may be Internet enabled and/or Internet-dependent (Karen *et al*, 2015).

Internet businesses in developing economies are growing but not as extensively as those in high-income markets such as Europe or North America. This is because the developing regions' proportion of GDP, represented by the world Internet economy, still lags behind the leading industrialised countries (Karen *et al*, 2015). Therefore, nations that wish to exploit the Internet's potential for social and economic profits must continue to invest in infrastructure and the broader ecosystem for innovation (Dalberg, 2013).

1.1.2 CUSTOMER SATISFACTION AND EXPECTATIONS OF SERVICE PERFORMANCE AS DRIVERS OF INTERNET UPTAKE

Customer satisfaction and expectations are important concepts that organisations providing services such as Internet Service Providers (ISPs) need to understand in order for them to survive, compete and sustain their businesses (Angelova and Zeqiri, 2011; Awoke, 2015; Ling *et al.*, 2015). The service organisations need to frequently assess the quality of their service delivery to enable them to provide remedial interventions that will enhance their service performance in line with customer satisfaction and expectations (Agyapong, 2011; Awoke, 2015). The service organisations such as ISPs are mainly driven by customers and their sustainability in a competitive environment largely depends on the high quality of the service that they provide (Devi and Revathy, 2011; Angelova and Zeqiri, 2011).

Studies by Aasfour and Al-Haddad (2014) and Amin (2016) show significant and strong relationship between the Internet banking service quality, customer satisfaction and loyalty. This was confirmed by the studies undertaken by Nigeria Consumer Satisfaction Survey NCC and CTO (2012); Uduchukwu (2013) and Ling *et al.* (2016) that reveal the

importance of customer satisfaction and expectation of Internet usage as they report that customers were not willing to use the service because of their low level of satisfaction. When customer expectations are met, it leads to customer satisfaction and behavioural intention, which will make room for repeat purchase of service, customer loyalty and positive word of mouth (Turk and Avcilar, 2009; Angelova and Zeqiri, 2011).

Therefore, it is important for ISPs to know how to evaluate customer perceptions of quality services (Daniel and Berinyuy, 2010). Thus, the better understanding of customer needs will improve customer satisfaction, loyalty and retention, increase profitability and reduce running costs (Daniel and Berinyuy, 2010). This implies that an organisation which has a more satisfied customer base will experience greater economic returns and improve customer loyalty (Yi, 1991; Fornell, 1992; Anderson and Sullivan, 1993; Boulding *et al.*, 1993; Aaker and Jacobson, 1994; Blem, 1995; Bolton, 1998; Au-Yeung *et al.*, 2002, William *et al.*, 2016).

1.1.3 NIGERIA REGION AND THE INTERNET SERVICE PROVIDERS (ISPS)

Nigeria is described as “*a multi-ethnic and culturally diverse country of 36 states and the Federal Capital Territory, Abuja*” (World Bank 2021a). It is “*a developing country that is geographically located in West Africa within the tropical zone*”, with an estimated population of 200,963,599 people” (World Atlas, 2021). It has “*an area mass of 923.8 thousand square kilometres (356,700 sq. miles) and is bordered by four countries that include Niger, Chad, Cameroon, and Benin to the north, northeast, east, west respectively and has a coastline on the Gulf of Guinea*” (World Atlas, 2021). The country is divided into six (6) Geopolitical Zones, namely: North Central, North West, North East, South West, South East and South South (Eze *et al.*, 2014)

The petroleum resource, “*oil accounts for over 80 percent of exports, a third of banking sector credit, and half of government revenues*” (World Bank, 2021a). Despite that the “*petroleum is the major foreign exchange earner for Nigeria, the agricultural sector*

remains the mainstay of the country's economy as the largest non-oil export earner" (Adewale *et al.*, 2021). The agricultural sector provides large labour space and contributes to the creation of wealth and poverty alleviation in Nigeria (Evbuomwan 2016). Besides the petroleum and agricultural sectors, the country is also endowed with solid minerals, which include gold, coal, bitumen, talc, gypsum, iron ore, rock salt, kaolin, gemstone limestone, tin ore, columbite and zinc/lead sulphates (Alison-Madueke 2009; NHC 2020; Adekoya *et al.*, 2011).

Also, telecommunications & information services which include the Internet service provider sector *"contributed 12.45 per cent to Gross Domestic Product (GDP) in Nigeria in the Fourth Quarter, 2020"* (NCC, 2020). It increases from *"12.45% to 12.61% in the fourth quarter of 2021"* (NCC Report, 2021). The Gross Domestic Product (GDP) annual growth in Nigeria is 3.6 percent as at 2021 (World Bank 2021b).

In Nigeria, *"the larger percentage of the service providers are located in Abuja and Lagos due to high the population in these places"* (NCC Report 2021). As a result of the corresponding high demand for Internet broadband services, *"Regulatory Commission in Nigeria needs to encourage ISP licensees to spread their services to other locations in the country in order to boost the Federal Government initiative of a robust and pervasive broadband penetration"* (NCC Report, 2021)

The major ISPs in Nigeria include MTN, Airtel, Glo, EMTS (9 Mobile), Smile and NTEL and *"as at December, 2021, the total active Internet subscriptions decreased from 154,289,727 subscriptions as at December 2020 to 141,959,496 subscriptions as at 2021"* (NCC Report, 2021). The market share for the ISPs between the year 2020 to 2021 in Nigeria is shown below.

Table 1.1: Active Internet Subscription indicating ISPs' Market Share between 2020 and 2021

ISP	Active Internet Subscriptions December'20	Active Internet Subscriptions December'21	Difference	% Change
MTN	65,359,306	58,812,428	(6,546,878)	(10.0)
GLO	40,106,659	39,525,269	(581,390)	(1.4)
AIRTEL	41,287,733	37,526,624	(3,761,109)	(9.1)
SMILE	7,120,088	5,752,702	(1,367,386)	(19.2)
EMTS (9 Mobile)	378,635	314,674	(63,961)	(16.9)
NTEL	37,306	27,799	(9,507)	(25.5)
TOTAL	154,289,727	141,959,496	(12,330,231)	(8.0)

Source: Nigerian Communications Commission (NCC) 2021 Subscriber/ Network Data Annual Report Policy Competition and Economic Analysis Department

Table 1.1 indicates a (8%) decline in total active Internet subscriptions. “The ISPs attributed the decline majorly to the Federal Government’s directive to suspend the Sale, Registration and Activation of new Internet lines” (NCC Report, 2021). Even though there was decline in Internet subscriptions, it was observed that there was still an increase in Internet usage as at December 2021 as compared to December 2020 as the total volume of Internet usage by subscribers increased from 209,917.40 Tetra Bytes as at December 2020 to 353,118.89Tetra Bytes as at December 2021, which represents an increase of 68.2% in Internet consumption within the period (NCC Report, 2021). This may likely be attributed to Covid -19 pandemic lockdown in Nigeria, when most activities were carried out online using Internet services.

1.1.4 RATIONALE FOR FCT ABUJA, NIGERIA AND ITS GLOBAL RELEVANCE

Adeyeri *et al.* (2017a) cited Euromonitor (2010) and Abuja Facts (2015) that FCT, Abuja is one of the fastest emerging growing cities in the world and fastest growing city in Africa.

Like other major cities across the globe, FCT Abuja, the Federal Capital of Nigeria, accommodates the centralisation of government functions, commercial/business activities and key private sector organisations (Oluwole, 2017). The major ISPs/Telecom Operators in Nigeria are also based in Abuja. Many have their Nigerian Headquarters or major branch offices in Abuja where they also have large numbers of subscribers (Jiriko *et al.*, 2015). The Telecoms and Internet Regulatory and Policy Agencies also have their Headquarters located in Abuja (NCC, 2017).

FCT, Abuja is in the central region of the country and its land mass covers an area of around 7,315 km² (Federal Government of Nigeria, 2019). The FCT, Abuja comprises six Local Government Areas (LGAs) centred on the urban settlements of Abuja Municipal, Abaji, Gwagwalada, Kuje, Bwari and Kwali (Federal Government of Nigeria, 2019). The National Bureau of Statistics (2011), citing the National Population Commission as its source, stated that the population of the FCT, Abuja according to the population census conducted in 2006, is 1,406,239. As at 2016, Jaiyeola and Andrews (2016) estimated that the number of people living in FCT, Abuja amounts to 6 million people. The FCT, Abuja is one of the most populous cities in Nigeria and like most other cities across the globe, it has experienced a remarkable rural-urban immigration of people (Adeyeri *et al.*, 2017b). A study by Jiriko *et al.* (2015) demonstrated that FCT, Abuja is one of the best planned capital cities in the world with regard to the efficiency of administration, overall aesthetics of the city environment, equality of citizenship and a stated vision and mission of transforming it into a 'Smart' Federal Capital City. The Smart City Innovation Hub was established for FCT, Abuja with the aim of making it an 'Internet city' or a 'digital city'. The ongoing computerisation of the city functions, such as the Abuja Geographical Information System (AGIS), forms the technological infrastructure that is preparing Abuja for global competitiveness (Jiriko *et al.*, 2015). Its many Internet cafes and computer-based businesses, along with the hundreds of thousands of people who own personal laptops

and iPads, are evidence of the globally recognised telecoms revolution in Nigeria (Jiriko *et al*, 2015).

Moreover, Abuja is substantially wired (underground) for voice, data and video telecommunication and other telecommunication-driven services (Jiriko *et al.*, 2015). Abuja has a relatively well-developed infrastructure that includes modernised ICT, electrical, water and other underground utilities (Jiriko *et al.*, 2015). This, in combination with its demographic and the pattern of migration of people from rural areas to an urban centre, make it broadly representative of many urban environments in other parts of the world (Boyd, 2017). It is, therefore, a suitable benchmark for comparison with other cities in Africa and elsewhere in the world (Jiriko *et al.*, 2015), and an ideal study for the research reported here.

However, a review of the published literature with respect to the quality of Internet services in Abuja and Nigeria as a whole, reveals concerns surrounding poor Internet network coverage, frequent Internet interruption/failure, slow Internet speed, inability to connect easily to the Internet, high cost of accessing the Internet and incorrect billing, amongst other issues (NCC and CTO, 2012; Oketola and Opara, 2013; Uduchukwu, 2013; Abdul *et al.*, 2014). Issues surrounding the quality of Internet services are attributed to inadequate deployment of network backbone-infrastructure and modern equipment, out of date technology, unstable power supply, the vandalism of telecom infrastructure and other factors (News Desk, 2013; Akwaja, 2017).

Although some of these concerns may be specific to the economically developing countries, others also apply to the more developed regions. This was illustrated in a study by McKinsey and Company (2014) that revealed that the lack of mobile Internet coverage or network access, in addition to an absence of supporting infrastructure, such as grid electricity, were significant barriers to the delivery of Internet services. It appears that

these aforementioned issues are commonly encountered by many nations, but the extent or degree of their effects may vary from country to country.

Although, FCT, Abuja is geographically discrete, the above context strongly suggests that the breadth of service provision issues experienced by FCT, Abuja is representative of the diversity and extremes of concerns experienced elsewhere in the world. This, in turn, indicates that Abuja has relevance, within a global perspective, as a study that is also representative of other nations for testing the meaningfulness of widely accepted Service Quality Models.

Furthermore, Abuja is a suitable subject for obtaining a balanced and representative sample of opinions from a wide spectrum of stakeholders. Key consumer stakeholders include Domestic Internet Subscribers, Institutional and Business Subscribers. Providers and enabling stakeholders are represented by the ISPs and Regulatory Agencies of FCT, Abuja.

1.2 RATIONALE FOR STUDY

Despite the significant growth of the Nigerian telecoms' sector, there are many concerns surrounding the poor quality of Internet services (Nigeria Consumer Satisfaction Survey, 2012). Most of the time, using Internet services in Nigeria is frustrating due to poor infrastructure quality resulting in poor network coverage, inadequacy of service delivery and charges that are widely perceived as being unjustifiable in the light of the poor quality of services (Udichukwu, 2013; Kuboye, 2017; Gillwald, 2018; Digital Economy Diagnostic Report, 2019; Freedom House, 2020). These are actually barriers to Internet uptakes and poor network coverage is not only limited to Nigeria but is a global phenomenon that affects both developing and developed nations (McKinsey and Company, 2014).

Since the Internet has become a vital technological tool for the success of businesses (Apăvăloaie, 2014), the concerns for quality by both domestic and business customers

has become a necessary consideration. Addressing quality is fundamental to customer satisfaction as it is widely recognised that perceived quality of service is closely related to customer satisfaction, which in turn, affects future use (Santouridis *et al.*, 2009; William *et al.*, 2016). This has further downstream impacts on social progress and national economic growth (Anie, 2011; Dalberg, 2013; William *et al.*, 2016).

Publications have shown that service quality is mostly measured in many customer domains by customer evaluations of service quality through customer expectations and perceptions (Zeithaml and Bitner, 2003; Xu, 2007). In line with Philip and Hazlett (1997), customers in recent times are becoming more sensitive and critical about the quality of service that they experience, such as in the ISP sector. This indicates the need to understand the extent to which their perceptions of quality influence Users' Internet service uptake. Hence, the rationale for this study to test the extent to which users' Internet service uptake is being influenced by customer perceptions of quality Internet services. Investigations reported in this study include a detailed evaluation of the circumstances of the discrete geographical territory represented by FCT Abuja. This uniquely combines issues faced by rural, urban and migratory communities and includes settlements at different stages of economic development.

The study of FCT Abuja, consequently, has potential to explore the contrasting needs of community and consumer types, and to be representative of circumstances experienced in other nations. Because of its global relevance, FCT Abuja also presents an opportunity to evaluate models that are widely used to assess service quality in other customer domains but are perhaps less frequently applied to the delivery of Internet services. Based on the foregoing, investigating the extents to which the dynamics of customers' perception of service quality relate to the performance of ISPs is of paramount importance to telecommunication development and improvement of customers' uptake in FCT Abuja, Nigeria.

1.3 AIM OF THE RESEARCH

The aim of this research study is to apply an adapted service quality model to assess users' perception of the quality of the ISP Sector's services and how this perception influences their satisfaction and service uptake. This is also to identify issues of priority for remedial intervention in FCT Abuja, Nigeria. It is hoped that the findings of this research will have global relevance, particularly in developing economies, similar to the study of FCT Abuja, Nigeria.

1.4 RESEARCH QUESTIONS

The research questions are:

- (i) Is there a relationship between ISPs' service performance and customer satisfaction?
- (ii) Does the interaction of ISPs' service performance and moderators (i.e., issues limiting Internet service provision) influence customer satisfaction?
- (iii) Does customer satisfaction affect behavioural intention of customers?
- (iv) Does customer satisfaction mediate the relationship between ISPs' service performance and behavioural intention of customers?
- (v) Does customer satisfaction mediate the moderated relationships between ISPs' service performance and behavioural Intention of customers?

1.5 RESEARCH OBJECTIVES

The specific objectives of the study are to:

- (i) Investigate the extent to which ISPs' service performance relates to customer satisfaction.
- (ii) Examine the extent to which the interaction of ISPs' service performance and moderators influences customer satisfaction.

- (iii) Examine the relationship between customer satisfaction and behavioural intention of customers.
- (iv) Determine the extent of the relationship between ISPs' service performance and behavioural intention of customers via the mediation of customer satisfaction.
- (v) Determine the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and behavioural intention of customers.

1.6 RESEARCH PROJECT RISKS AND MITIGATING ACTIONS

Risk entities include the ethical concerns which are discussed in Chapter 3 of this thesis. These and other operational risks are counteracted with mitigating actions and/or contingency plans. Research did not explicitly involve participants who were vulnerable or unable to give their consent, nor was it concerned with medical, criminal, privacy or other overtly sensitive domains of human concern.

The collection of data for quantitative analysis was done through an online platform and this helped to protect participants from possible coercion, manipulation or inducement and avoid the introduction of sample bias. Collection of data for qualitative analysis was done through semi-structured interviews with consent of the participants obtained before the interviews were conducted.

The full research proposal with full details of data collection through semi-structured interviews and questionnaires, and data and information management and analyses were submitted for review and approval by the University Ethics Panel (UEP) (see Appendix X IV).

Potential risks and mitigating action associated with data quality were addressed with a Pilot Test Survey and a Reliability and Validity Test. These were conducted to ensure that questionnaires were appropriate for sampling the type of information intended, properly aligned to the research domain paradigms (surrounding Internet service quality and

stakeholder perceptions of satisfaction) and suitable for responding to the research questions raised. Preliminary analysis of pilot survey data (by Cronbach Alpha Reliability Testing) usefully detected similarities and redundancy among groups of questions and helped to identify and amend questions that were not entirely specific to meeting the research objectives.

The secondary data related to the research study were obtained through the reviews of relevant literature, journals, reports, papers and articles among others, academic institutions' websites and portals of institutions or organisations globally, which sources were duly referenced. Appropriate research methods after careful researches on the best approach to carry out this study as well as the method of analysis were considered and adopted.

1.7 THESIS STRUCTURE AND MAPPING OF RESEARCH ACTIONS TO OBJECTIVES

The structure and intentions for the different thesis sections are as follows:

Chapter 1 introduces the research background, overall research purpose and establishes the rationale for investigation based on the importance of Internet service provision as a vehicle for social and economic development. The research rationale, objectives and questions are stated. Research project risks and mitigating actions are also considered.

Chapter 2 reviews the literature on the ISPs' service performance as it relates to customers' perceptions of Internet service delivery. The review establishes that measuring service quality within the context of Internet service delivery can be accomplished using ISPs' service performance dimensions. The relationship among ISPs' service performance, customer satisfaction and behavioural intention was established. It identified the issues limiting Internet service provision (moderators) and two of these moderators were discussed. Finally, the chapter presented the knowledge gap, conceptual framework and hypotheses formulated for the research.

Chapter 3 discusses the research philosophy, paradigm, approach, method and strategy. It provides the rationale for the choice of pragmatic philosophy, mixed methods and the sampling techniques adopted for this study. The appropriate primary and secondary data collection chosen for this research, together with method of analysis, are discussed.

Chapter 4 presents the exploratory study on the research, which was conducted on identified stakeholders of Internet services in Federal Capital Territory (FCT), Abuja, Nigeria. This study outcome provides key issues of concern, which corroborate with the literature review that guided further research.

Chapter 5 presents the report of the findings from the research as it explains the quantitative and qualitative analysis and findings.

Chapter 6 presents a discussion of the findings in relation to the objectives of the research and also discusses the contribution to knowledge, reflexivity on the role of the researcher, limitations of research, conclusion and recommendation for future research.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter builds on issues discussed in chapter one and provides further background to the context of the research by reviewing the ISPs' service performance as they relate to the context of customers' perceptions for delivery of Internet services. It also establishes the relationships among ISPs' service performance, customer satisfaction and behavioural intention. Issues that moderate or limit Internet service provision or that serve as moderators; the demographic as control variables and a conceptual framework for this research are discussed in this chapter. Finally, the chapter presents the formulation of hypotheses and also discusses the knowledge gap.

2.2 ISPS' SERVICE PERFORMANCE

The study by Kim *et al.* (2007) shows that service performance can be categorised into two major aspects, i.e., operational and relational performance (Stank *et al.*, 1999). It explains that operational performance is in respect of the physical features of service, while relational performance is related to the service delivery process. In the case of ISPs, operational performance is referred to the network performance, while relational performance corresponds to the customer service performance (Kim *et al.*, 2007).

In the ISP sector, the theory of service management is significant, to know the needs and wants of customers, what they appraise to be their need and what they are actually looking for (Gronroos, 1988; Kotler and Armstrong, 2007). According to studies by Anderson and Sullivan (1993), Brady and Cronin (2001) and Kotler and Armstrong (2007), the important factor of business performance is that customer satisfaction leads to loyalty, repurchasing intentions and willingness to recommend to others. They explain that service organisations need to know their customer experiences and their perception of the services they use, to enable them to provide better services that give satisfaction to

existing customers and will contribute towards the recruitment of new ones. Therefore, to survive in the competitive market field, service provision organisations such as ISPs have to continue to enhance their service performance effectively as “the high degree of service performance in any service provision domain is a differentiator in a competitive market and an effective way of improving customer satisfaction and loyalty” (Kim *et al.*, 2007).

The increasing service providers in the marketing field and the various accompanying services have made it necessary to provide an enhanced service performance measurement apparatus that would help to achieve customer satisfaction in today's marketing process, which is based on customer relationship (Ghotbabadi *et al.*, 2015).

At this point, it will be significant to define what service is all about. According to Gromoos (2001), service is defined as “*a process that leads to an outcome during partly simultaneous production and consumption processes*”. Some scholars such as Gromoos (2000), Kotler and Kelvin (2006) and Lovelock and Wirtz (2007), agree that service involves a form of rental, which provides the services whereby customers obtain benefits by renting the right to use a physical object, to hire the labour and expertise of personnel, or to pay for access to facilities and networks. Wolak *et al.* (1998) described services as economic activities in which outputs are not physical products but are intangible. They are generally consumed at the time they are produced with added values. Wolak *et al.* (1998) further mentioned that services are activities, benefits and satisfactions that are offered for sale or are provided in connection with the sale of goods.

In service marketing literature as reviewed by Zeithaml *et al.* (1985), services are different from tangible goods and are known based on four major characteristics, even though there are more characteristics from different researchers. These are explained by Zeithaml *et al.* (1985) as follows:

- (i) Intangibility: services are intangible things that cannot be sensed before the consumer decides to purchase. That is, services are performances rather than objects or things that cannot be evaluated before they are purchased.
- (ii) Inseparability: services are often sold, produced and consumed simultaneously. Thus, production and consumption are inseparable in services.
- (iii) Heterogeneity: These are services that arise due to difficulty in obtaining uniform output. They reflect high variability potential in the output of services as different quality can be delivered by the same producer depending on the customer, the time and some other factors.
- (iv) Perishability: This is a characteristic of services that means that they cannot be registered for future use as they are meant to be consumed when they are produced. Edgett and Parkinson (1993) state that services should be consumed when they are produced.

Also, it will be important to describe the term “performance” and according to Coste and Tudor (2013), the term “performance” is described as being a complex and contestable concept that has diverse meanings which are based on different areas that are determined by organisation and context (Carter, 1991). Thomas (2006) presents management of performance as consistent generation, collection, analysis, reporting and the use of data in association with the operation of an organisation that involves input data, outputs, and outcomes. Thus, “*measuring performance is the process of quantifying action that leads to performance*” (Neely, 2005). Therefore, in the ISP sector, service performance is considered very important especially the network performance that primarily determines customer satisfaction (Kim *et al.*, 2007).

The performance of service provided to a customer can be measured to be of high quality if the service offer is adequate to meet the task at hand and produces the customer's desired result (Weitz and Wessley, 2002). But the term “quality” can be interpreted

differently by different customers, and it is quite difficult to define, judge or quantify the quality of a service as compared to a product (Williams *et al.*, 2016). Although there is no agreed definition for quality, there are some key points that are common to almost all the definitions of quality, such as perceptions, expectations and performance of services that are experienced by the customers (Williams *et al.*, 2016). However, Yatin *et al.* (2014) describe quality as suitable for use at a better economical level, while Hessalmaldin (2007) also classifies quality as:

- (i) Product-Based: This is when certain features and specifications of products are taken into account that are measurable and, as well, represent high quality.
- (ii) Consumer-Based: This is when customers determine the quality of goods or services, which is based on customers' perception that the goods or services that were provided satisfied the customers' needs, in which case such goods or services are of high quality.
- (iii) Goods Specification-Based: This is when experts provide specific product or service features and the closer the product or service meets these specific features, the higher the quality of the product or service is deemed to be.
- (iv) Cost-Based: this mainly shows the component of price on which the quality of product or service is based. It is an accepted price or logical cost corresponding to quality.

Thus, the quality of service can be measured by how well the service level delivered matches customer expectations (Weitz and Wessley, 2002). Quality of service results from customers' expectations of what service providers should provide and how they actually perform to meet these expectations (Weitz and Wessley, 2002). Every service sector aimed at consciously minimising the gap between service delivery and customer satisfaction, seen as the ability of an organisation to determine the customer needs and to effectively meet them, has a great effect on quality of service (William *et al.*, 2016).

Hence, measuring quality of service is one of the significant tools that will help service providers to understand customers' needs and wants, by analysing customers' experiences and satisfaction on the delivery of services (Ghotbabadi *et al.*, 2015). This would attract and retain customers as the customers' perception of quality of service will be obtained based on the levels of satisfaction, they experience with the services delivered by the service providers (Gagliano and Hathcote, 1994; Kotler and Keller, 2006). It will also interpret customer's judgment about the service and the attitude formed by a long-term overall evaluation of a firm's performance (Culiberg and Rojšek, 2010; Hoffman and Batesan, 2010).

2.3 ESTABLISHING ISPS' SERVICE PERFORMANCE DIMENSIONS

The study by Kim *et al.* (2007) was able to identify the causal relationships among network performance (an operational aspect of service performance), customer satisfaction and customer loyalty in an Internet service delivery context. The study explained that customer satisfaction is based on a transaction-specific measure, while customer loyalty is acquired over time because of a customer's cumulative experience with the service provided by the ISP. Even though the study by Kim *et al.* (2007) considered service performance to comprise network performance and customer service performance, the limitation of the study was that when it measures ISPs' service performance, it laid emphasis only on network performance and considered it more important, ignoring customer service performance in their study's conceptual framework. Network performance is regarded as a significant driver of the overall service quality within the ISP sector (Vlachos and Vrechopoulos, 2008). Thus, the study by Kim and co-workers only focused on ISPs' network performance and indicates that customer satisfaction is determined primarily by network performance. They measure the dimensions of network performance that include download speed, upload speed, packet transfer delay and packet loss rate. This can be categorised as shown in the study of Thaichon *et al.* (2014)

as Internet speed rate and connection quality respectively and can also be referred to as components of network quality. The relationship among network performance, customer satisfaction and customer loyalty (behavioural intention) as revealed by Kim *et al.* (2007) is illustrated in Figure 2.1 below.

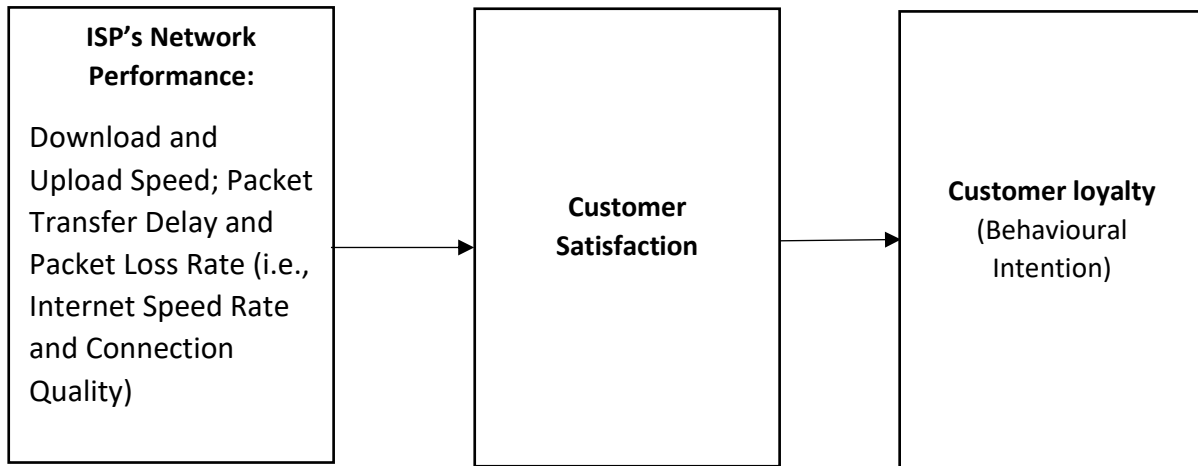


Figure 2.1: Conceptual Framework for ISP's Service Performance adapted from the study by Kim *et al.* (2007)

Similarly, another study by Vlachos and Vrechopoulos (2008), to investigate the determinants of behavioural intentions in the mobile Internet services market, provided service evaluation constructs and their effects on behavioural intention. Though the constructs for the ISPs' network performance in this study look more robust than that of the study by Kim *et al.* (2007), it also only focuses on network performance. The constructs include connection quality; Interaction quality; content quality; device quality, customer service; privacy; and contextual quality. It is seen in this study that customer service, which is customer service performance related, was considered as one of the constructs to be measured for the evaluation of network performance as it relates to service quality. But the study did not include customer service as one of the dimensions of network performance that have significant influence on service quality. It only shows that the network performance dimensions of content quality, contextual quality, device quality, connection quality and privacy are the concerns of customers that have a positive significant influence on service quality. This implies that customer service is less

important in the network performance evaluation. The limitation of the study remains that it only focuses on an aspect of ISPs' service performance, that is, network performance. There is no emphasis on the relational performance by considering other components such as information quality and support services that are related to relational performance and are involved in the process of service delivery that could also enhance customer satisfaction and behavioural intention (Kim *et al.*, 2007; Thaichon *et al.*, 2014). However, the study reveals a significant element, which is relevant to this research by indicating that ISPs' network performance is related to service quality which in turn has led to customer value and satisfaction that have a simultaneous direct effect on behavioural intentions. The research model by Vlachos and Vrechopoulos (2008) is illustrated in Figure 2.2.

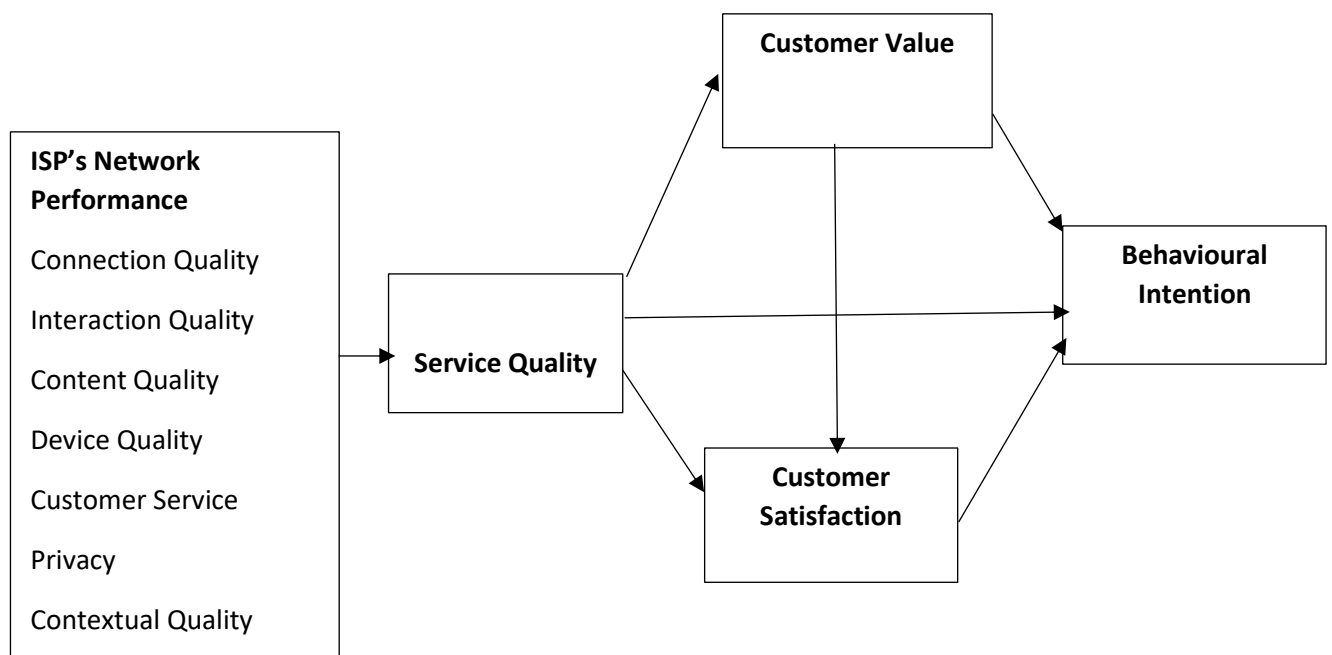


Figure 2.2: Service Evaluation Construct Effects on Behavioural Intentions by Vlachos and Vrechopoulos (2008)

In line with the study of Vlachos and Vrechopoulos (2008), Wiele *et al.* (2002) examines the relationship between organisation performance and customer satisfaction in a service providing company such as ISP. The study adapted the widely used service quality dimensions, the SERVQUAL scale to measure the organisational performance of a

service providing organisation. The study indicates that the dimensions of service quality play an important role in examining the performance of that organisation and states that the perceived quality is related to service performance of that service provider. Sweeney and Soutar (2001) shows that service performance is directly related to ISP's service quality and is seen to be significant with respect to customers' behavioural intention and usage in ISP/Telecom sector (Vlachos and Vrechopoulos, 2008; Kim, 2012; Thaichon *et al.*, 2014). This was corroborated by the study of Neger *et al.* (2013) on "Measuring Service Quality of Internet Service Providing Firms", which indicates that measuring service quality is the overall evaluation of performance. This was also buttressed by Hong and Kim (2020) showing that when service quality is higher, the service satisfaction will become higher, as service performance exceeds expectations. This implies that service quality is related to service satisfaction (customer satisfaction) and service performance. In order to have a robust model and constructs for this research, another study by Thaichon *et al.* (2014) was reviewed. The study aimed at developing service quality dimensions for ISP industry and indicated that due to the need to meet the evaluation of service quality in the new information era, the E-Service Quality Scale was developed by Parasuraman *et al.* (2005). This was to help to evaluate the efficiency and effectiveness of on-line shopping, purchasing and delivery of services (Wolfenbarger and Gilly, 2003) as it provides an overall customer evaluation and assessment of e-service delivery in the virtual marketplace (Santos, 2003). The SERVQUAL and E-SERVQUAL have been widely used in service provision domains to measure how well the services provided meet customer's expectations (Zhao and Benedetto, 2013). But due to the nature or features of the Internet services provided by ISPs, the SERVQUAL and E-SERVQUAL scales cannot be used to adequately and effectively measure the service quality of ISP services (He and Li, 2010; Thaichon *et al.*, 2014). Many of the studies that use scale for SERVQUAL or E-SERVQUAL have concentrated on service providers that use the

Internet to provide or enhance their services (Vlachos and Vrechopoulos, 2008) such as shopping and banking industries, but not on the Internet service delivery or the ISPs that actually offer the Internet services (Thaichon *et al.*, 2014). He and Li (2010) show that some studies have been carried out in the telecoms sector, specifically in the mobile telephony industry, but according to Santouridis and Trivellas (2010), there are basic differences that exist between Internet service delivery and other telecommunications services. These differences from the other telecoms services are mostly not applicable to ISPs. However, the study by Thaichon *et al.* (2014) was able to provide constructs of what ISP customers would expect from an ISP and it shows that these are influenced by the four dimensions, which include network quality; customer service and technical support; information quality; security and privacy. These dimensions of ISP's service quality from the study of Thaichon *et al.* (2014) correspond with the operational performance (network performance) and relational performance (service delivery process) that were indicated by Kim *et al.* (2007) (see Section 2.2). The operational performance involves the network performance that has to do with network quality, which includes features like quality and strength of the network signal, number of errors, network disconnection, upload and download speed (Kim *et al.*, 2007; Thaichon *et al.*, 2012; Thaichon *et al.*, 2014). The disruptions of the Internet connection can result in poor perceptions of network quality by the customer (Thaichon *et al.*, 2014). Therefore, network performance is critical to customer satisfaction.

Customer service and technical support is an important dimension to look for when evaluating service performance within ISP sector and this can be categorised under the customer service performance that has to do with the service delivery process (Kim *et al.*, 2007). ISP/Telecom organisations can provide extra services (Wang and Wu, 2012) to enhance quality of service they offer (Tam, 2012). These additional services can provide excellent customer care service and after-sales technical support. These will build a good

relationship between the ISPs and their customers (Aydin and Özer, 2005; Thaichon *et al.*, 2014).

Likewise, having an information platform or communication channel connecting the customers to the ISPs is very important. This is applicable to many businesses via their Internet platform, connecting themselves to their customers (Asmussen *et al.*, 2013; Lee *et al.*, 2012). This information platform allows customers access to quality Information provided by their ISPs (Elliot *et al.*, 2013). This has also been considered to be a very significant area of customer perceptions of service quality (Yang *et al.*, 2005). Therefore, information quality is a significant dimension that will enhance ISP customers' satisfaction. This would allow customers to access relevant, complete and accurate information with respect to the services being offered to them.

Another important feature that cannot be ignored by customers is security and privacy online. This can be considered an aspect of operational performance within the ISP sector. Security and privacy of the Internet network with respect to customers' personal data is significant as the servers of ISPs that form part of the network do have account information of many users that can put ISP customers' personal data at risk if the servers are accessed by unauthorised persons (Rowe *et al.*, 2011 and Thaichon *et al.*, 2014).

The rate of cyber-attacks, data breaches and unauthorised use of personal data is rapidly increasing (Zoltick, 2018). According to GSMA's report (2018), most of the global consumers show a high level of concern on the issue of online privacy. These concerns over the privacy and possible fraudulent use of Internet services have become important because those already online may become less likely to entrust personal information essential for business and social media transactions (Internet Society, 2015; 2016a). In addition, those not yet online have a similar reason to remain offline so the overall effect will be slowing uptake and growth of the Internet economy (Internet Society, 2015; 2016a). Hence, collective and collaborative approaches are needed to develop effective

and suitable solutions that will help to address these issues of Internet security challenges. Therefore, the implementation of preventative measures on security and privacy online will put companies in a much stronger and more confident position, thereby improving on customer satisfaction and behavioural intention (Ip *et al.*, 2018). Thus, the foregoing discussion shows that the need to assess the security and privacy online is very important. Therefore, this needs to be included as part of customers' concerns when measuring customers' perception of ISPs' service performance as it relates to customer satisfaction and behavioural intention.

Further research conducted by Quach *et al.* (2016) using an exploratory study and mixed method to obtain quantitative and qualitative data, supported the study of Thaichon *et al.* (2014) and confirmed that the dominant service quality dimensions for ISPs are network quality, customer service, information quality and privacy. It also shows that these dimensions of ISPs' service quality or ISPs' service performance has influence on ISP customers' behavioural Intention.

Thus, as discussed above and illustrated in Figures 2.1 and 2.2, and study by Kim *et al.* (2007) shows the direct relationship of ISPs' network performance (ISPs' service performance) with customer satisfaction that led to customer loyalty (see Figure 2.1). Also, the study by Vlachos and Vrechopoulos (2008) shows the direct relationship of ISPs' network performance (ISPs' service performance) with service quality which led to customer satisfaction and behavioural intention (see Figure 2.2). Therefore, the study of Thaichon *et al.* (2014) and Quach *et.al* (2016) in relation to the studies of Kim *et al.* (2007) and Vlachos and Vrechopoulos (2008), imply that ISPs' network performance (ISPs' service performance) corresponds with ISPs' service quality which led to customer satisfaction and behavioural intentions. This is supported by other studies within ISP/Telecom's domain that have shown that measuring the service quality of Internet service delivery is related to measuring of ISPs' service performance as these studies

have adapted service quality scales when measuring ISPs' service performance (Abdul *et al.*, 2014; Kushwah and Bhargay, 2014; Ho and Yahya, 2015; Firdous and Farooqi, 2017; Al-Hashedi and Abkar, 2017; Suguanthi and Shanthi, 2017).

From the above discussions, the dimensions used in evaluating services offered by ISPs that are developed by Thaichon *et al.*, (2014) and are adopted in this research include:

(i) **Steady and good network quality** (Lai *et al.*, 2009). This feature is associated with the ISP/telecoms sector. Network quality has been used as one of the dimensions to measure customers' perceptions of service quality or ISPs' service performance in studies by (Kim *et al.*, 2007; Thaichon *et al.*, 2014; Abdul *et al.*, 2014; Quach *et al.*, 2016; Firdous and Farooqi, 2017; Al-Hashedi and Abkar, 2017; Suguanthi and Shanthi, 2017). Network quality involves the quality and strength of the Internet connection; number of interruptions and disconnections; and the speed of uploading and downloading files (Thaichon *et al.*, 2012; Thaichon *et al.*, 2014).

(ii) **Customer service and technical support team** (Aydin and Özer, 2005) is of great importance in ISP sector since customers will go after and have a good relationship with the company that meets their concerns and expectations (Eisingerich and Bell, 2008). Customer service and technical support allow contact between the customers and the service provider (Thaichon *et al.*, 2014) and this dimension of service quality has been found to be a crucial one in the telecoms industry (Aydin and Özer, 2005) as this enhances customers' confidence in the service provider (Eisingerich and Bell, 2008).

(iii) **Information quality**, which involves service providers providing accuracy and complete information to customers (Elliot *et al.*, 2013; Thaichon *et al.*, 2014). This has been considered as a vital element in customers' perception of service quality within the Internet service sector (Yang *et al.*, 2005).

(iv) **Adequate security and privacy** that customers can trust (Zeithaml *et al.* 2000; Roca *et al.*, 2009). This is the level to which the customers feel that the connection is safe

from intrusion and that their personal information is protected during transactions and usage (Zeithaml *et al.* 2000; Vlachos and Vrechopoulos, 2008). In e-commerce, security of transaction and privacy of personal information is related to service quality (Ha and Stoel, 2012).

The measuring scale used for ISPs' service performance (ISPs' service quality) from the study of Thaichon *et al.* (2014), which is adopted for this research to test ISPs' service performance is presented in Section 3.9 of the methodology chapter.

2.4 CUSTOMER PERCEPTION, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY

This section discusses the relationship between customer perceptions of service quality, customer satisfaction and behavioural intention (customer loyalty). Discussion on these key variables and the establishing of the relationship are presented in the sub-sections below.

2.4.1 CUSTOMER PERCEPTION

Zeithaml and Bitner (2003) show that customer perception is the impression that a customer has about a product or service. It reveals that customer perception is formed based on customer's evaluation of the quality of service offered by a service provider, and whether it meets the expected quality of service. According to Umer's (2016) report, *"it is the actual service performance outcomes of an organisation and it tends to be high if the manner in which a service is provided meets or exceeds the expectation of customers"*. This implies that service quality corresponds to service performance.

As opined by Zeithaml and Bitner (1996) and Keller (1993), there are four factors that influence customer perceptions of a service and they include:

Image: This shows that customer perceptions can be affected by the image or reputation of the organisation or service provider.

Price: The cost of services that are offered to customers can influence the customer's perceptions. The cost or price of a service is used by customers as a way to assess whether the service can meet their expectations or not. This shows the importance of price as it has the ability to moderate the usage of service or behavioural intention to use the service.

Service Encounters: This is the interaction that happens between the service provider and customer during a period of time as a result of service encountered.

Evidence of Service: This involves seeking evidence of service in every interaction that the service providers have with their customers to build an overall impression of service perceptions.

Since there is a relationship between customer perception and customer expectation, it will be significant in this research to discuss customer expectation. Thus, William *et al.* (2016) opines that customer expectation comprises the desires and wants of consumers, and the feel of what a service provider should offer, rather than what is actually offered. It also shows that it is the perceived advantages or benefits that a customer expects to derive from a service. Studies by Zeithaml and Bitner (1996) and Zeithaml *et al.* (2006) also reveal that customer expectation is derived from the customer's belief about service delivery, which functions as a standard upon which performance is gauged. This shows that what customers expect to see when measuring quality of service is the service performance. According to Ali *et al.* (2015) and Webfinance (2015), customer expectations can be influenced by advertising, promotions and positive word of mouth. Thus, the need for service providers to ascertain whether their services satisfy or exceed the expectation of customers is very important. Therefore, the inability of a service provider to understand the levels of service that customers expect may lose their customers to competitors who are able to meet the expectations of these customers (Zeithaml and Bitner, 2003).

2.4.2 CUSTOMER SATISFACTION

Studies by Churchill and Sauprenant (1982) and Oliver (1980) describe satisfaction as a post choice evaluative judgement covering a specific purchase decision. Many researchers agree that satisfaction is an attitude or evaluation that is formed by customers comparing their pre-purchase expectations of what they would obtain from a product or service with their subjective perception of the performance they actually have (Oliver, 1980). Thus, studies by Yi (1990), Kotler (2000) and William *et al.* (2016) show that customer satisfaction is based upon a person's feelings of pleasure or disappointment resulting from comparing a service or product's perceived performance against their original expectation.

The studies further reveal that it is the outcome felt by buyers who have experienced a service provider's performance that fulfilled their expectations. Yi (1990) shows that customers do experience various degrees of satisfaction: when service performance falls short of expectation, the customer is dissatisfied and when performance matches expectations, the customer is satisfied. This was corroborated by Shams *et al.* (2020) whose study shows that customer satisfaction is affected by the magnitude of service failure. The foregoing literature gave a clear indication that service performance has an influence on customer satisfaction. Therefore, in the service provision sector, customer satisfaction is of key importance.

According to Erevelles *et al.* (2003) on Expectations – disconfirmation model by Oliver (1980), consumers form expectations about a service before purchasing it. The model helps to explain satisfaction of citizens in the public service sector (Van Ryzin, 2004, 2006; James, 2009; Morgeson, 2012). Erevelles *et al.* (2003) and asserts that the actual performance of a service provided is revealed after the subsequent post-purchase usage of the service by the customers. It reveals that customers now compare their post-purchase evaluation with their own expectations prior to the purchase of the

service). It explains that if the service performance is better than expected (i.e., perceived actual performance is greater than expected performance), there will be positive disconfirmation. Oliver, (1980) and Spreng *et al.*, (1996), indicate that this will lead to customer satisfaction and strengthen the attitude of the customer towards the service, which will result in positive word of mouth thereby enhancing the Internet service uptake. This was corroborated by Joudeh *et al.* (2018) who opine that Internet service quality has a positive influence on customer satisfaction which consequently influences the level of customer loyalty or behavioural intention.

It further explains that if the service is worse than expected (i.e., perceived actual performance is less than expected performance), there will be negative disconfirmation, which will weaken the future disposition of customers willing to purchase the service. But if the service is performed as expected by the customer (i.e., perceived actual performance is equal to the expected performance), there will be simple confirmation (Oliver and DeSarbo, 1988). However, when Van Ryzin (2013) tested the model it provided mixed results, yet it still confirmed that one part of the model indicates that there is a positive effect of performance on satisfaction. Expectations – disconfirmation model is shown in Figure 2.3.

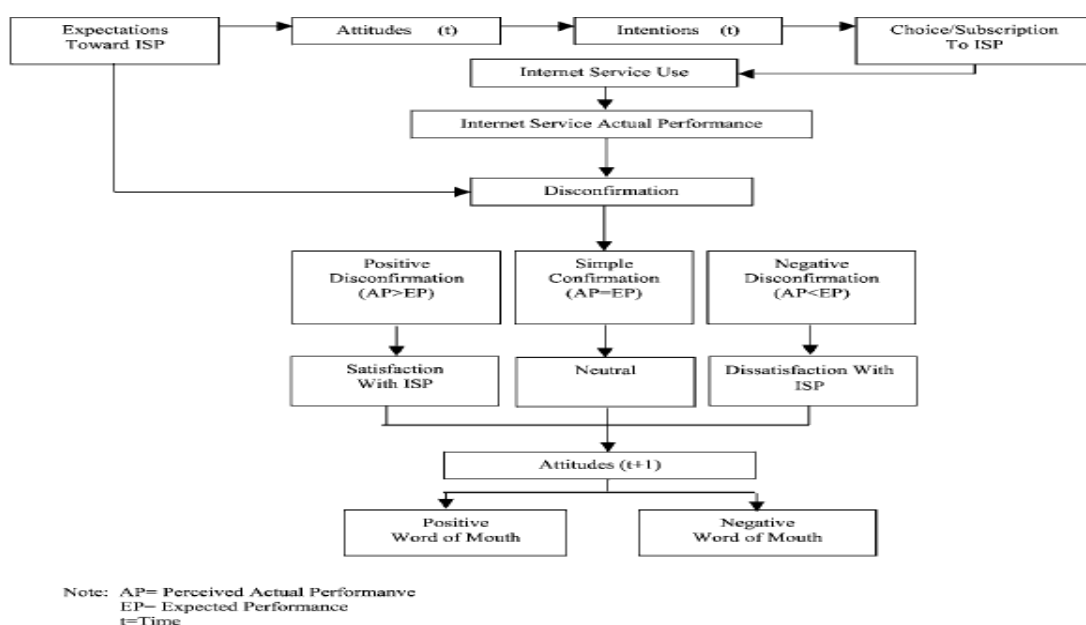


Figure 2.3: Expectations – disconfirmation model for ISP (Erevelles *et al.*, 2003)

From the above discussions on customer satisfaction, the following can be summarised for constructs to measure customer satisfaction.

- (i) Customer satisfaction can be linked with choice evaluation based on the performance of service the customer actually received (Churchill and Sauprenant, 1982; Oliver, 1980). This suggests that choice evaluation be considered when measuring customer satisfaction.
- (ii) Customer satisfaction can be expressed based on how customers experience different levels of satisfaction or how it is affected by the degree of service failure (Shams *et al.* 2020). A report by Cadotte and Turgeon (1988) shows that satisfaction can be influenced by different levels experienced by customers i.e., positive disconfirmation (satisfaction); simple confirmation (neutral); and negative disconfirmation (dissatisfaction) (Erevelles *et al.*, 2003; Spreng *et al.*, 1996; Yi, 1990; Oliver and DeSarbo, 1988; Oliver, 1980). This implies that service providers should constantly evaluate the overall satisfaction of customers.
- (iii) customer satisfaction is based on customer's feelings of pleasure or disappointment, which comes as a result of comparison of a service perceived performance against their original expectation (Yi, 1990; Kotler, 2000 and William *et al.*, 2016). This is supported by Joudeh *et al.* (2018) stating that satisfaction is linked with the feeling of delight; that is, if a customer is contented or pleased with a given service. This indicates the need for service providers to ensure that their customers are pleased with their services by always evaluating their customer perceptions.
- (iv) According to Gilbert & Veloutsou (2006), customer satisfaction can be described in terms of expectations as the preconceived perceptions concerning service delivery that stands as a reference point which service performance can be evaluated. This includes evaluating the service to provide consumption levels that

is excellent for customers' fulfilment (Oliver, 1997; Joudeh *et al.*, 2018). This provides the need for service providers to constantly measure the manner by which service is provided to their customers.

Studies by Cheng *et al.* (2008) and Joudeh *et al.* (2018) in their evaluation of customer satisfaction have applied similar criteria in their researches. Considering that the dimensions used in the study by Joudeh *et al.* (2018) seem more suitable and recent, they are adopted and adapted in this research to evaluate customer satisfaction. The measuring scale is presented in Chapter 3, Section 3.9.

2.4.3 CUSTOMER LOYALTY

According to studies by Gremler and Brown (1999) and Kendall (2006), customers show their level of loyalty to a service organisation by their repeat purchasing from that organisation, having an optimistic attitudinal disposition towards that service organisation, and subsequently consider using only this organisation when the need arises. This implies that it is required that customer loyalty be enhanced to enable customers to deal with the service organisation in future. Hence, the need to always measure the repeat purchase of services is very important.

The studies also show that customer loyalty is the preference of a customer over other acceptable products or services that are readily available. It is the customer's positively biased attitudinal behavioural response towards a service organisation (Bloemer *et al.*, 1998). Customer loyalty exhibits both attitudinal and behavioural tendencies to favour one service over all others, whether as a result of satisfaction with the service, based on its convenience or performance, or simply familiarity and comfort with the service (PR Loyalty Solutions, 2011). This shows the need to always evaluate quality or prices of services as this makes customers prefer a particular service organisation to another, which is significant when evaluating for customer loyalty or behavioural intention (Joudeh

et al., 2018). Therefore, the need to recognise how loyal customers are to the service from their service providers should not be taken for granted.

Studies by Coyne (1989), Yi (1990) and Fornell (1992) agree that customer satisfaction has measurable impact and a positive relationship with customer loyalty. Coyne (1989) explains that as satisfaction increases, loyalty also increases and vice versa. Yi (1990), in other words, states that satisfaction is related to behavioural loyalty such as continuing purchases from the same service provider, word of mouth recommendation and increased scope of relationship. This shows the need for service providers to always engage their customers to ascertain their words of recommendation and to know how far these customers are willing to recommend others to the service.

Service customers have a tendency to stay with the same service organisation in as much as the customers are continually satisfied (Hong and Goo, 2004). To corroborate the above-mentioned studies, the study of Akroush and Mahadin (2019) examines “the purpose of a multi-dimensional model of customer perceived value, customer satisfaction and loyalty. The study shows by expatiating that customer perceived value has a positive effect on functional and technical satisfaction as well as attitudinal loyalty, which in turn positively affects cognitive and behavioural loyalty. This implies that there is an interrelationship among customer perceived value, customer satisfaction and loyalty, which confirm the study by Priyo *et al.* (2019) which reveals that customers’ perception of service quality has a positive effect on customer satisfaction and customer loyalty and indicates that a significant mediation effect of customer satisfaction was discovered in the relationship between customer perception of service quality and customer loyalty.

The measuring scale used for customer loyalty (behavioural intention) from the study of Joudeh *et al.* (2018), which is adopted and adapted for this research to evaluate behavioural intention, is presented in Chapter 3, Section 3.9.

2.4.4 ESTABLISHING THE RELATIONSHIP BETWEEN CUSTOMER PERCEPTION OF SERVICE QUALITY, CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)

Turk and Avcilar (2009) explain that perceived service quality leads to satisfaction and satisfaction leads to behavioural intentions. This is also a significant finding that has assisted this new research in understanding the relationship between perceived service quality and customer satisfaction, and that customer satisfaction has a link with behavioural intentions. This is illustrated in Figure 2.4.

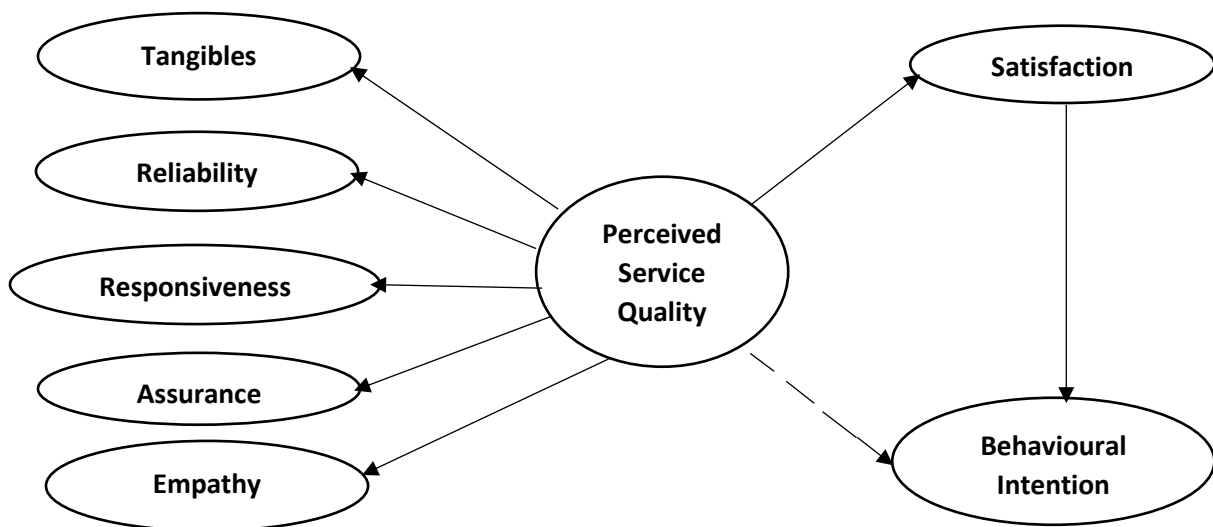


Figure 2.4: Effects of Perceived Service Quality of Audit Firms on Satisfaction and Behavioural Intentions (Turk and Avcilar, 2009)

This is corroborated by studies carried out by Jin-woo *et al.* (2006); Ouparami (2009); Hsin-Hui *et al.* (2009); Chen *et al.* (2010); Petzer and DeMeyer (2011); Wantao and Ramakrishman (2012); Petrovicovaa *et al.* (2012); Nicholas *et al.* (2013); Deona *et al.* (2015; Chatzigeorgiou *et al.* (2017); Wang *et al.* (2020) that show that there is a relationship between customer perception of quality and customer satisfaction that leads to behavioural intention. The studies reveal that customers who are satisfied with a provider's products or services tend to have positive attitudes and their satisfaction significantly influences their behavioural intention. This leads to frequent purchases, purchases in greater volume, and purchases of other goods and services offered by the same firm (Anderson, Fornell and Lehmann 1994). This implies that in the case of Internet

services, customer satisfaction would also lead to customer intention and accordingly leads to Internet uptake.

2.5 ESTABLISHING THE RELATIONSHIP AMONG CUSTOMER PERCEPTION OF ISPS' SERVICE PERFORMANCE, CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)

The need for customer retention in the market arena has been seen to be more crucial when compared to acquiring new customers, as high level of service performance is a differentiator in the competitive ISP market; it ensures customer satisfaction and loyalty (Kim *et al.*, 2007; Zhao and Benedetto, 2013; Thaichon *et al.*, 2014). Therefore, the level of service performance has to be enhanced to meet competition within the ISP sector (Kim *et al.*, 2007).

Study by Wiele *et al.* (2002) shows that there is a significant relationship among customer satisfaction, service performance and the changing behaviour of customers. Publications have shown that studies have been carried out to examine the relationship among service performance, customer satisfaction, and customer loyalty in different service sectors that include tourism service (Baker & Crompton, 2000) and hotel service (Choi & Chu, 2001; Kim & Cha, 2002) and telecommunications service (Gerpott *et al.*, 2001; Kim *et al.*, 2004) among others. These studies have shown that there is significant causal relationship among service performance, customer satisfaction and customer loyalty.

As indicated in Section 2.3, Sweeney and Soutar (2001) and Neger *et al.* (2013) show the direct relationship between service quality and service performance, and the significant effect of this on customers' behavioural intention. The studies show that measuring of ISP service quality corresponds to evaluating ISPs' service performance. Also, it is sufficient to state that the SERVQUAL measuring scale widely used by researchers was modified to SERVPERF (a performance-only index) with the aim of providing a performance-based measurement in terms of the relationships among service quality, customer satisfaction and purchase intentions (Cronin and Taylor, 1992, 1994).

This supports the observation that evaluating service performance corresponds to measuring service quality. Hence, adoption of the ISP service quality dimensions of Thaichon *et al.* (2014) in Section 2.3 as constructs to measure ISPs' service performance. Thus, it suffices to state that the relationship among customer perception of ISP service quality, customer satisfaction and behavioural intention corresponds to the relationship among customer perception of ISPs' service performance, customer satisfaction and behavioural intention.

Since ISPs' service performance adopted in this research to evaluate service quality within the context of Internet service delivery, it therefore corresponds with the literature that has shown that service quality has a significant influence on customer satisfaction, which in turn leads to customer loyalty (Cheng *et al.*, 2008; Vlachos and Vrechopoulos, 2008; Loke *et al.*, 2011; Arokiasamy and Abdullah, 2013; Alabar *et al.*, 2014; Dhurup *et al.*, 2014; Quach *et al.*, 2016; Akroush and Mahadin, 2019). These fore-mentioned studies have also shown that there is a mediating effect of customer satisfaction on the relationship between Internet service quality (i.e., ISPs' service performance) and customer loyalty (behaviour intention) for customer retention and attracting new patronage (Sarkindaji, *et al.*, 2015; Khan *et al.*, 2016). This is supported by the study of Joudeh *et al.* (2018) that examines "*the influence of service quality within the ISP sector on customer loyalty through the mediating effect of customer satisfaction*". It indicates that Internet service quality has a positive influence on customer satisfaction which consequently influences the level of customer loyalty. It further reveals that well-built and good service quality would lead to customer satisfaction that would also lead to a better level of customer loyalty/behaviour Intention. This was buttressed by Ramseook-Munhurrun and Naidoo (2011) that shows a direct significant relationship between customer satisfaction and behavioural intentions.

Thus, from the above discussions, the research study posits that there is a relationship among ISPs' service performance, customer satisfaction and behavioural intention (customer loyalty) within the ISP sector and this is illustrated in Figure 2.5.

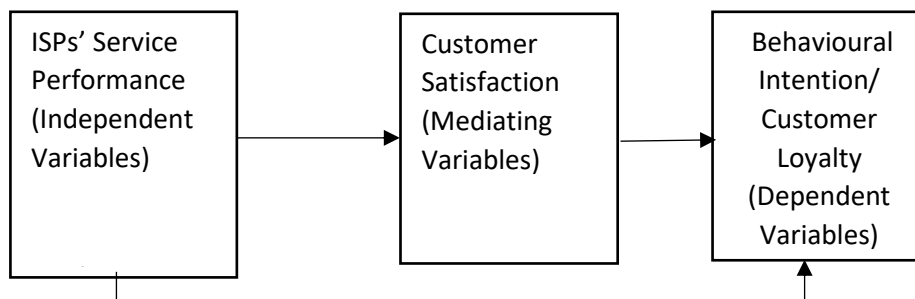


Figure 2.5: Interrelationship among ISPs' Service Performance, Customer Satisfaction & Behavioural Intention (Adapted by the Research from Literature Review)

Also, based on literature, this research identified some issues that can moderate Internet service provision. These issues are considered in this study and are discussed in the subsequent section.

2.6 MODERATORS - ISSUES MODERATING OR LIMITING INTERNET SERVICE PROVISION AND THEIR INFLUENCE ON CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION

Service companies such as ISPs offer tempting discounts to attract new customers but once recruited may not deliver the expected standard of customer services (Kalb, 2013). Therefore, this resulted in the reasons for switching and weakening of customer relationships as the assurances made by ISPs are not always delivered (Hossain, 2017). However, Internet services are delivered through a complicated network infrastructure that could, from time to time, develop faults which undermine the performance or provision of service. Nevertheless, ISPs still have a legal and contractual obligation to deliver adequate services (ISP Review, 2017) as it is their responsibility to provide a consistent and high-quality service to their customers, as well as delivering returns on shareholder investments. But there are challenges that prevent them from providing an adequate service delivery (Chartered Institute for IT, 2009).

Hence, in view of the enormous importance of the Internet, it is therefore significant that the moderators or issues limiting Internet service provision as well as preventing its uptake, need to be considered. This will help to examine their interaction with ISPs' service performance as they relate to customer satisfaction and behavioural intention (Fonseca-Hoeve *et al.*, 2017). Through literature review, this study identifies issues that moderate Internet service provision. These include:

- (i) Internet Bandwidth - Inadequate bandwidth capacity causes data congestion that affects the quality of service causing customers to experience slow connections and interrupted services (Hecht, 2016).
- (ii) Prices of Internet Service Users' Access - One of the issues of concern mentioned by customers, amongst others, are the high cost of accessing the Internet and incorrect billing (NCC and CTO, 2012; Oketola and Opara, 2013; Uduchukwu, 2013).
- (iii) Internet Backbone Connectivity Infrastructure - The need for more Internet backbone infrastructure is crucial as limited Internet infrastructure is the key challenge in providing public access to quality Internet services (Hicks *et al.*, 2016).
- (iv) Policy and Regulation - Lack of clearly defined regulation and government commitment, which will enhance quality Internet service provision, has been reported specifically as obstacles for African nations (Anie, 2015).
- (v) Digital Skills/Literacy (Capability/Self Efficacy) - There is the issue of lack of digital skill/literacy for providing and accessing Internet services in many countries especially in the developing world and this has affected the quality of Internet service provision and usage (ITU *et al.*, 2015; World Economic Forum, 2016a).

Two of these issues are considered in this research and are discussed in the following sub-sections.

2.6.1 INTERNET BANDWIDTH

There has been much improvement in Internet bandwidth, but service providers still need to keep themselves abreast of the rapid growth in global traffic and further demand for bandwidth in order to meet the expectations of customers (Hecht, 2016). “The demands from customers for more Internet bandwidth facility are increasing” (Alton, 2017).

A study by McKinsey and Company (2014) shows that consumer barriers to Internet service uptake include, among others, limited access to bandwidth and limited spectrum availability.

Due to the rapid growth of Internet traffic, *“service providers face constant operational challenges to efficiently manage the use of existing network resources, plan for network expansion and maintain profitability”* (Internet Society, 2012). These have resulted in calls to adopt new approaches to meet bandwidth demand (The Millennium Project, 2011). Improved network performance with better bandwidth will support services such as YouTube Video Streaming that will increase online content sharing (Zheleva *et al*, 2015). Therefore, since there is an impact of quality of service on customer satisfaction (Ping-Lung *et al.*, 2017), the need to expand bandwidth and efficiently manage bandwidth resources and otherwise enhance network performance are a matter of priority for service providers and policy makers (Fastmetrics, 2017). Hence the need to measure the interaction of Internet bandwidth with ISPs’ service performance in order to examine the moderating effect of this issue on customer satisfaction and behavioural intention.

2.6.2 PRICE OF INTERNET USER’S ACCESS

The price of services is usually considered by customers as a yardstick to evaluate whether the service meets expectations or not, as price logically corresponds to the quality of service (Hessalmaldin, 2007). This indicates the importance of price as it can moderate users’ uptake as well as Internet service provision (Zeithaml and Bitner, 2003).

Hence the need to consider the interaction of price of Internet service users' access and ISPs' service performance to examine its influence on customer satisfaction and behavioural intention is essential.

Section 2.6 mentions five moderators and this research is assessing only the two discussed above, which are "Internet bandwidth" and "price of Internet users' access", while the other three moderators are recommended for future research. The two moderators considered in this research are prioritised because of demands from customers for more Internet bandwidth (Alton, 2017) and the price for Internet users' access influences customer perception and is a driver of customer satisfaction (Erevelles *et al.*, 2003).

Therefore, the need to test their interactions with ISPs' service performance are very important and these have been included in this research as part of the constructs to test the model for evaluating the extent to which Users' Internet service uptake is influenced by customer perceptions of quality Internet services. This further enhances this research over previous similar studies.

The measuring scale used for the two moderators developed by Joudeh *et al.* (2018), Kuboye (2017) and Grepott (2018), which is adapted for this research, is presented in Section 3.9 of the methodology chapter.

2.7 DEMOGRAPHIC AS CONTROL VARIABLES

Control variables are variables that the researcher tends to keep as constant when research is being conducted and they are prevented from influencing the outcome of the research (Allen, 2017). Though control variables are not the key issues of interest to the researcher, they are significant to proper understanding of the relationship between independent and dependent variables, and if properly used, they can help the researcher to accurately assess the value of an independent variable (Allen, 2017).

Respondents' demographics in this research are considered as control variables, which include gender, age, educational background and profession, amongst others (Salkind, 2010). The use of demographic variables is common among researchers and they are typically constructed as either moderator or control factors (Naseri and Elliot, 2011). A study by Allada (2014) indicated that the controlling effect of demographic profiles such as age, monthly income and educational qualification helps the study to obtain the appropriate outcome of the research.

2.8 CONCEPTUAL FRAMEWORK

This section explains the developed conceptual framework that guides the study analysis. Section 2.5 established that there is a relationship among ISPs' service performance, customer satisfaction and behavioural intention and this was illustrated in Figure 2.5. Likewise, the literature review in Section 2.6 identified some moderators, of which two are considered in this research.

Also, the demographics variables that include age, gender, educational background, profession and income, as discussed in Section 2.7, serve as control variables in this research. Therefore, the conceptual framework for this research as derived from the foregoing discussions is shown in Figure 2.6.

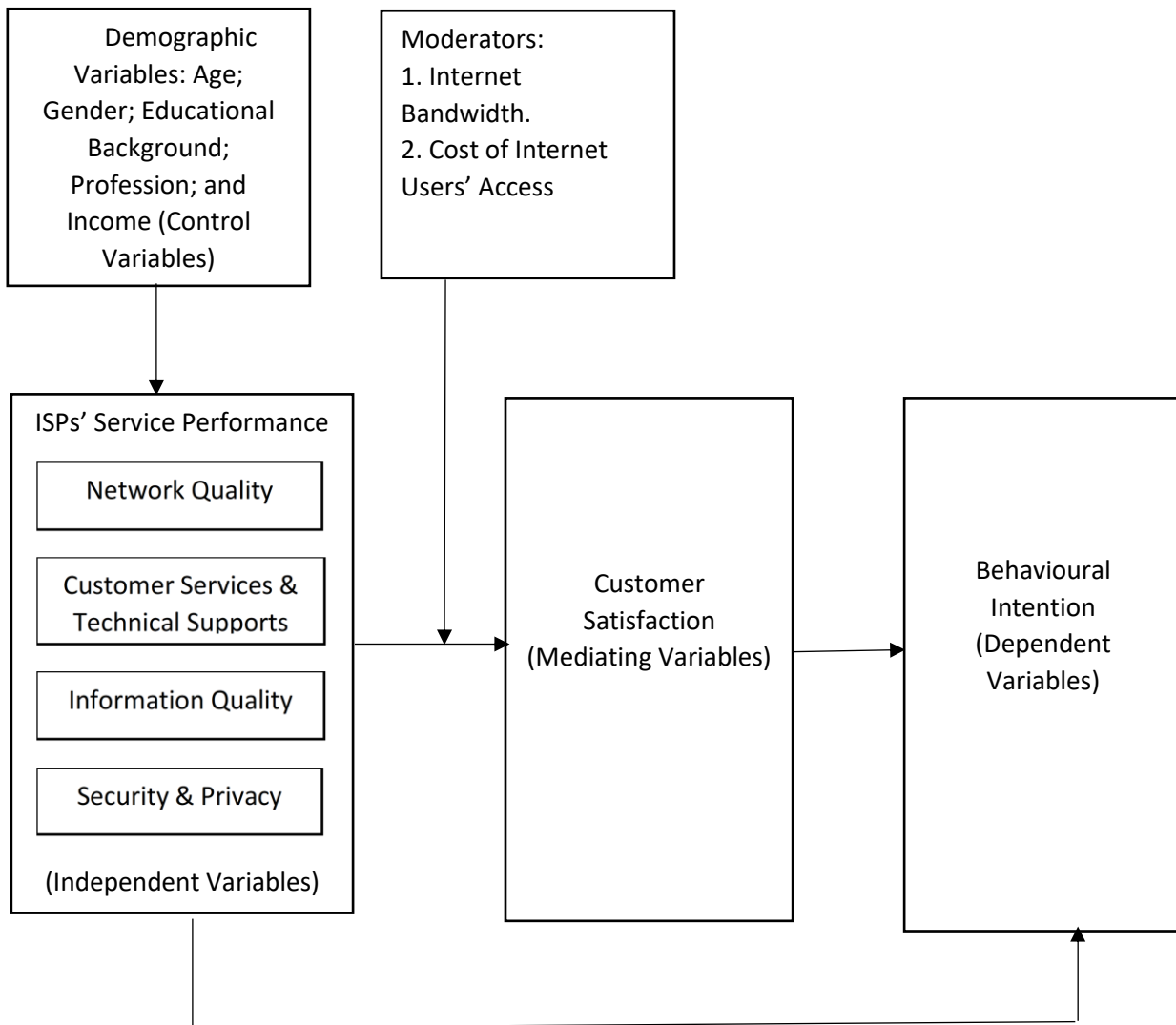


Figure 2.6: Conceptual Framework for the Evaluation of the Extent to which Users' Internet Service Uptake is influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria

The key variable constructs in this research study are:

- (i) ISPs' Service Performance;
- (ii) Customer Satisfaction;
- (iii) Behavioural Intention;
- (iv) Internet bandwidth;
- (v) Price of Internet Users' Access; and
- (vi) Demographic

The category of variables includes:

- (i) **Dependent Variable:** “Behavioural Intention”. Dependent variable is the variable which depends on the independent variables. It is the outcome of the influence of the independent variable. The dependent variable is also referred to as criterion, outcome, effect, and response variable (Creswell, 2014).
- (ii) **Independent Variable:** “ISPs’ Service Performance”. Independent variables are those items that (probably) cause, influence, or affect outcomes. They are also referred to as treatment, manipulated, antecedent, or predictor variables (Creswell, 2014).
- (iii) **Mediating Variable:** “Customer satisfaction”, mediating variable is also referred to as intervening variable. A mediating variable is the variable that links the independent and dependent variables together. Its existence explains the relationship between the other two variables (Creswell, 2014; Allen, 2017).
- (iv) **Moderating Variable** is “the issue limiting internet service provision” such as the Internet bandwidth and price of Internet users’ access. It is the variable that can strengthen, diminish, negate, or otherwise alter the association between independent and dependent variables (Allen, 2017).
- (v) **Control variable** “demographic variables”. It is the variables that the researcher held as constant when conducting research (Allen, 2017).

2.9. RESEARCH HYPOTHESIS

The literature reviewed has helped to identify key variables such as ISPs’ service performance, customer satisfaction, behavioural intention, Internet bandwidth, price of Internet users’ access and demographic that can be measured within the context of Internet service delivery. The review has assisted in adopting the ISPs’ service performance dimensions (Section 2.3) and identified the mediating role of customers’ satisfaction (Section 2.5). It also identified issues moderating Internet service provision

that could influence the relationship among ISPs' service performance, customer satisfaction and behavioural intention (Section 2.6), which led to the conceptual framework in Figure 2.6 above. Therefore, to guide the process of analysing this conceptual framework, the hypotheses as they relate to the research objectives were developed based on literature review and these are discussed below.

Section 2.5 shows that there is a relationship among ISPs' service performance, customer satisfaction and behavioural intention. Also, Section 2.5 indicates that customers' perception of service quality corresponds to measuring the customers' perception of ISPs' service performance, so the ISPs' service quality dimensions were adopted in this research to evaluate ISPs' service performance.

In Section 2.3, Thaichon *et al.*, (2014) and Quach *et al.* (2016) revealed some dimensions that are associated with the measuring of customers' perception of ISPs service performance. These dimensions have been adopted from the ISPs' service quality dimensions and this research has discovered them to be useful and most suitable for evaluating ISPs' service performance. The dimensions are network quality (Lai *et al.*, 2009), which is a feature under network performance in the operational category of service performance (Kim *et al.*, 2007) (Sections 2.2 & 2.3); customer service and technical support team (Aydin and Özer, 2005; Thaichon *et al.* 2014), a feature under customer service performance in relational category of service performance (Sections 2.2 & 2.3); information quality (Elliot *et al.*, 2013; Thaichon *et al.*, 2014); security and privacy (Roca *et al.*, 2009).

Study of Wang and Yang (2004) on Internet service delivery indicates that network quality is a significant driver for customer satisfaction. Abdul *et al.* (2014) and Buhajjoti (2019) confirmed that network quality is an important factor that affects or builds customer satisfaction. In line with this, Suguanthi and Shanthi (2017) and Al-Hashedi and Abkar (2017) reveal that perceived network quality has a great and positive significant impact

on customer satisfaction. In view of the above discussions, the following hypothesis is postulated:

H1_a - Network quality is significantly related to customer satisfaction.

Section 2.3 (ii) discussed how customer service and technical support are important features of ISP/telecom industry providing the meeting points between customers and the service providers (Thaichon *et al.*, 2014) and improves customers' confidence in the service provider (Eisingerich and Bell, 2008). Customer service can be referred to as providing service to customer, before, during and after a purchase. As defined by Zeithaml and Bitner (2003), customer service is a series of activities that is planned to enhance the degree of customer's satisfaction. Customer service assists ISPs to have an edge over their competitors (Leelakulthait and Hongcharu, 2011). Abdolvand *et al.* (2006) express the opinion that paying attention to customer service improves overall service quality and customer satisfaction. Quasim & Asadullah (2012) state that every service provider needs to provide customer support service to achieve customer satisfaction. They show that customer service is an important factor for customer satisfaction and a good customer support service serves as a tool to provide strong ties with a company. In line with foregoing discussions, the following hypothesis is postulated:

H1_b – Customer service and technical support are significantly related to customer satisfaction.

Information has been discovered to be one of the most significant factors that is needed to strengthen the use of information technology (Ayyash, 2015). Information has become a critical resource in the business markets, and information quality is among the key predictors of their decisions and actions (Stvilia *et al.*, 2007). Information quality contributes to achieving customer satisfaction (Jun and Kang, 2013; Ayyash, 2015; Masri *et al.*, 2020). In light of the above discussions, the following hypothesis is postulated:

H1_c – Information quality is significantly related to customer satisfaction.

Security and privacy involve customers' feelings of protection and safety when transactions are carried out and services are used (Vlachos and Vrechopoulos, 2008). Customer satisfaction is influenced by security and privacy (Peikari, 2010; Girsang *et al.*, 2020). Wahab *et al.* in their 2011 study postulate that service providers should ensure that their services fully satisfy their customers' privacy. This implies that there is a relationship between privacy and customer satisfaction. Wiwiek (2020) reveals that privacy has a significant influence on customer satisfaction. Based on the above discussions, the following hypothesis is postulated:

H1_d – Security and privacy is significantly related to customer satisfaction.

Hypotheses H1_a – H1_d formulated to test the dimensions of ISPs performance, will result to the overall ISPs' performance as it relates to customer satisfaction. Thus, Hypothesis **H1** is posited as:

H1 - Overall ISPs' performance is significantly related to customer satisfaction.

Hypothesis H1 and its sub-hypotheses, H1_a – H1_d are related to research objective 1.

Bandwidth is described by Wu and Turner (2006) as the capacity of information carriage in unit time that has direct effects on the flow size and flow rate of the data transfer on the Internet. Almhana and Liu (2012) indicate that bandwidth is a valuable asset to ISPs as this has a direct impact on quality of service. They state that, to achieve the required level of quality of service, there must be enough bandwidth resources.

Customers are becoming more demanding and the increase in demand of bandwidth and better quality of service have become basic requirements needed from service providers (Almahana and Liu, 2012). Thus, it is necessary to plan and manage bandwidth by ISPs to avoid network congestion and provide reliable services that would lead to customer satisfaction (Almhana and Liu, 2012). This shows the influence of bandwidth on ISPs' service performance that consequently affects customer satisfaction. Considering that

ISPs' service performance dimensions include network quality; customer service and technical support; information quality; security and privacy, which have already been discussed above to formulate the hypotheses that supported objective 1, the following hypotheses are postulated in line with these to support the research objective 2:

H2_a - The interaction of network quality and Internet bandwidth significantly influence customer satisfaction.

H2_b - The interaction of customer service and technical support; and Internet bandwidth significantly influence customer satisfaction.

H2_c - The interaction of information quality and Internet bandwidth significantly influence customer satisfaction.

H2_d - The interaction of security and privacy, and Internet bandwidth significantly influence customer satisfaction.

Hypotheses H2_a – H2_d

formulated to test the dimensions of ISPs service performance, will result in the overall ISPs' service performance, which would help to test the extent to which the interaction of ISPs' service performance and Internet bandwidth influence customer satisfaction. Thus, Hypothesis H2 is posited as:

H2 - The overall interaction of ISPs' service performance and Internet bandwidth significantly influence customer satisfaction.

Hypothesis H2 and its sub-hypotheses, H2_a – H2_d are related to research objective 2.

The price of service has a way of influencing customer perceptions and is used by customers to assess whether the service provided by the service provider can meet their expectations and give satisfaction (Zeithaml and Bitner, 1996; Keller, 1993). According to Erevelles *et al.* (2003), the price of what the consumer pays for access to Internet services have an influence on customer satisfaction. Affordable Tariff or Price of Internet services

is a driver of customer satisfaction (Paulrajan and Rajkumar, 2011; Erevelles *et al.*, 2003, Joudeh *et al.*, 2018) and can as well influence quality of service as price logically corresponds to quality of service (Hessalmaldin, 2007). Considering the ISPs' service performance dimensions, the following hypotheses are postulated:

H3_a - The interaction of network quality and price of Internet users' access significantly influence customer satisfaction.

H3_b - The interaction of customer service and technical support, and price of Internet users' access significantly influence customer satisfaction.

H3_c - The interaction of information quality and price of Internet users' access significantly influence customer satisfaction.

H3_d - The interaction of security and privacy, and price of Internet users' access significantly influence customer satisfaction.

Hypotheses H3_a – H3_d formulated to test the dimensions of ISPs' performance, will consider the overall ISPs' performance, which would help to test the extent to which the interaction of ISPs' performance and price of Internet users' access influence customer satisfaction. Thus, Hypothesis H3 is posited as:

H3 - The overall interaction of ISPs' performance and price of Internet users' access significantly influence customer satisfaction.

Hypothesis H3 and its sub-hypotheses, H3_a – H3_d are related to research objective 2.

In Section 2.5, Ramseook-Munhurrin and Naidoo (2011) show that customer satisfaction relates directly to customers' behavioural intentions or customer loyalty. Also, Section 2.4.3 shows that customer satisfaction has measurable effects and relationship with behavioural intention (Coyne, 1989; Yi, 1990; and Fornell, 1992). The Section 2.4.3 further indicates that the increase in satisfaction is proportional to increase in behavioural intention (Coyne, 1989) as customers stay with the same service organisation in as far

as the customers are continually satisfied (Hong and Goo, 2004). In view of the above discussion, the following hypothesis is postulated:

H4 – Customer satisfaction is significantly related to behavioural intention - related to research objective 3

Section 2.5 reveals that service quality or ISPs' service performance has an effect on customer satisfaction and consequently on customer loyalty with the indication that there is a significant mediation effect of customer satisfaction (Priyo *et al.*, 2019). Other studies as discussed in Section 2.5 show that service quality or ISPs' service performance has influence on customer satisfaction, which in turn leads to customer loyalty (Cheng *et al.*, 2008; Vlachos and Vrechopoulos, 2008; Quach *et al.*, 2016; Akroush and Mahadin, 2019). This reveals the mediating impact of customer satisfaction between Internet service quality or ISPs' service performance and behaviour intention (Sarkindaji, *et al.*, 2015; Khan *et al.*, 2016 Joudeh *et al.*, 2018).

Furthermore, a study of the impact of network performance on customer satisfaction and loyalty in respect of a high-speed Internet service, published by Kim *et al.* (2007), identified a causal relationship between network performance and customer satisfaction, which in turn promotes customer loyalty. This implies that there is a mediating effect of customer satisfaction on the relationship between network quality and behavioural intention. Hence, the following hypothesis is posited.

H5_a - Network quality is significantly related to behavioural intention via mediation of customer satisfaction.

Kursunluogu (2011) reveals that customer services by a service company provide services that directly or indirectly meet customers' expectations and eventually bring customer satisfaction and loyalty. It indicates that customer service can influence customer satisfaction, which consequently results in customer loyalty and concludes that customer service is a tool which can be used to create customer satisfaction and loyalty.

Also, Srivastava and Bhatnagar (2013) show that there is an impact of customer service on customer satisfaction which leads to behavioural intention because satisfied customers do not have the intention of switching. Quach *et al.* (2016) supported the view that service that leads to satisfied customers has a positive influence on customers' behavioural intentions. Therefore, the following hypothesis is postulated.

H5_b – Customer service and technical support is significantly related to behavioural intention via the mediation of customer satisfaction.

According to Jun and Kang (2013), information quality is significantly related to customer satisfaction and customer satisfaction is significantly related to the continuous intention to use the service. Masri *et al.*, (2020) supports the view that information quality has a significant relationship with customer satisfaction, which consequently leads to customer continuance intention. Information quality contributes to achieving customer satisfaction and promoting customer's intention or loyalty (Ayyash, 2015). Hence, the following hypothesis is postulated.

H5_c – Information quality is significantly related to behavioural intention via the mediation of customer satisfaction.

Quach *et al.* (2016) reveal that security and privacy are related to customers' behavioural intention and Wahab *et al.* (2011) explain that privacy is significantly related to customer loyalty and conclude that service providers should endeavour to ensure that customers are satisfied with the privacy of services they obtained from them. Wiwiek (2020) also shows that privacy has a significant influence on customer satisfaction and consequently on Loyalty. Consequently, the following hypothesis is postulated.

H5_d – Security and privacy are significantly related to behavioural intention via the mediation of customer satisfaction.

Hypotheses H5_a – H5_d formulated to test the dimensions of ISPs' service performance, will result in the overall ISPs' service performance, as it relates to behavioural intention via the mediation of customer satisfaction. Thus, Hypothesis H5 is posited as:

H5– Overall ISPs' service performance is significantly related to behavioural intention via the mediation of customer satisfaction.

Hypothesis H5 and its sub-hypotheses, H5_a – H5_d are related to research objective 4.

The study of Gerpott (2018) reveals that customer satisfaction with Internet bandwidth increases the attitudinal bonds of customers with their service providers. It shows that customer opinion of quality with respect to bandwidth was experienced in terms of transmission speeds that are relative to the download and upload bandwidths as well as the speeds emphasised in advertisements to customers by the service provider. Attitudinal bonding is broken down into customer satisfaction with the performance quality (Gerpott, 2018). This implies that the interaction of ISPs' service performance and Internet bandwidth influence behavioural Intention of customers via the mediation of customer satisfaction.

This discussion shows that the evaluation of Internet bandwidth, involves download and upload bandwidths, and connection speeds. Also, lack of adequate bandwidth has an effect on quality of service that resulted in customers having slow connections and interrupted services, especially during a peak period (Hecht, 2016). Thus, the availability of Internet bandwidth will allow better services, hence the need to evaluate its interaction as moderator as well as its causal relationship with variables in this research. Therefore, from the above discussions, considering the ISPs' service performance dimensions, the following hypotheses are postulated:

H6_a - The interaction of network quality and Internet bandwidth significantly influences behavioural intention via mediation of customer satisfaction.

H6_b - The interaction of customer service and technical support and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

H6_c - The interaction of information quality and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

H6_d - The interaction of security and privacy, and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Hypotheses H6_a – H6_d formulated to test the dimensions of ISPs' service performance, will result in the overall ISPs' service performance, which would help to test the extent to which the interaction of ISPs' service performance and Internet bandwidth influence the behavioural Intention of customers via the mediation of customer satisfaction. Thus, Hypothesis H6 is posited as:

H6 - The overall interaction of ISPs' service performance and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Hypothesis H6 and its sub-hypotheses, H6_a – H6_d are related to research objective 5.

It would also be significant to state that from the conceptual framework illustrated in Figure 2.6, of Section 2.8, it is shown that the interaction of ISPs' service performance and moderator (price of Internet users' access) can influence behavioural intention via the mediation of customer satisfaction, which is based on literature reviewed in Section 2.6.2. Hence, the following hypothesis with respect to price of Internet users' access is postulated, considering the ISPs' service performance dimensions:

H7_a - The interaction of network quality and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

H7_b - The interaction of customer service and technical support and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

H7_c - The interaction of information quality and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

H7_d - The interaction of security and privacy, and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Hypotheses H7_a – H7_d formulated to test the dimensions of ISPs' service performance, will result in the overall ISPs' service performance, that would help to test the extent to which the interaction of ISPs' service performance and price of Internet users' access influence behavioural Intention of customers via the mediation of customers' satisfaction. Thus, Hypothesis H7 is posited as:

H7 - The overall interaction of ISPs' service performance and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Hypothesis H7 and its sub-hypotheses, H7_a – H7_d are related to research objective 5.

2.10 KNOWLEDGE GAP

There is rapid changing of demands of customers as well as the services that they need (Coste and Tudor, 2013). To meet the expectation in the competitive market environment such as the ISP sector, ISPs have to continue to enhance their service performance (Kim *et al.*, 2007). Literature has shown that measuring quality of service within the ISP sector corresponds with measuring ISPs' service performance (Sweeney and Soutar, 2001; Neger *et al.*, 2013). Therefore, providing excellent quality of service and high customer satisfaction are important issues and challenges facing the service industry (Hung *et al.*, 2003). Service performance or service quality is an important subject in both public and private sectors as it refers to how a service meets or exceeds customer needs and expectations (Zahari *et al.*, 2008). In the past two decades and at present, service performance/service quality models for overall relevance within the ISPs has become a major issue for practitioners, managers and researchers because of its strong impact on

business performance, lower costs, return of investment, customer satisfaction, customer loyalty and gaining a higher profit (Seth and Deshmukh, 2005).

The increase in development and competition in service providing domains in both developed and developing countries, has made it important for service providers, especially within the ISP sector, to assess the quality of service they offer to customers (Brown and Bitner, 2007). Different researchers have developed several conceptual models for measuring the quality of service mostly in other service sectors as it is envisaged that service quality models will enable management to identify quality problems and provide remedial intervention (Seth and Deshmukh, 2005). Service management literature has shown that some of the most influential and widely used service quality models focus on the concept of a service quality gap, which describes the difference between customer expectations and perceptions of service (Pitt and Jeantrout, 1994), which has not efficiently measured service quality of ISPs or ISPs' service performance (He and Li, 2010; Thaichon *et al.*, 2014).

There is great emphasis placed on the need to understand the role that expectations play in service providing domains (Pitt and Jeantrout, 1994). Many are discerning and critical of the quality of service that they receive from their service providers (Philip and Hazlett, 1997). The literature reviewed has also shown that considerable research on service quality have been conducted by various researchers especially in banking, hospitality, shopping and travel services amongst others (Narayan, 2012; Campos and Marodin, 2012; Dixit, 2013; Phiri and Mcwabe, 2013; Dhurup *et al.*, 2014; Kariru and Aloo, 2014, Debasish and Dey, 2015; Aljasser and Sasidhar, 2016). But publications relating to customer perceptions of ISPs' service performance are relatively few, although studies such as Kim *et al.* (2007); Vlachos and Vrechopoulos (2008); Thaichon *et al.* (2014) and Quach *et al.* (2016) amongst others, have endeavoured to evaluate ISPs' service quality or ISPs' service performance as it relates to customer satisfaction and behavioural

intention at different aspects. The limitations of these studies are that some only focused on the network performance or network quality and did not consider other dimensions such as the customer care service. While the study that considered both network performance and customer care service, which dimensions for ISPs' service quality or service performance were adopted and adapted in this research, did not consider other issues such as Internet bandwidth and price of Internet service users' access that could serve as moderators. The interactions of these moderators with ISPs' service performance can influence customer satisfaction and behavioural intention. Thus, there exists a knowledge gap in the published literature in relation to evaluating the extent to which customer perceptions of quality Internet services influence Internet uptake. Hence, the need to undertake this study for the purpose of suggesting an appropriate service performance model within the ISP sector for evaluating objectively the extent to which Internet service uptake is influenced by customer perceptions of quality Internet services. Although this aims to be of global relevance, the primary scope of this research study is for Internet service uptake in developing countries as characterised by the study made on the FCT, Abuja, Nigeria.

With regard to the foregoing and literature considered in terms of customers' perceptions of ISP service performance, this research developed a conceptual framework that will guide the scope of the study towards achieving the identified research aim and objectives, which have been designed to clearly address current gaps in knowledge and research.

2.11 SUMMARY OF THE CHAPTER

The chapter reviews the ISPs' service performance or service quality within the ISP sector. It shows that measuring quality of service within the context of Internet service delivery is related to evaluating the service performance of ISPs. It also indicates that the constructs for measuring ISPs' service performance by Kim *et al.* (2007) and Vlachos and Vrechopoulos, (2008) corresponds with ISP service quality dimensions used by Thaichon

et al. (2014) adopted for this research. But the limitation of the first two studies was that, in examining the ISPs' service performance, they only focused on ISPs' network performance without considering the service delivery process.

The chapter further shows that customer satisfaction mediates the relationship between ISPs' service performance and behavioural intention. It reveals how the Internet bandwidth and prices of Internet users' access serve as moderators, and the demographic variables were used as control variables. Based on the literature review, the conceptual framework was developed

and the hypotheses were formulated, to guide the analysis. The knowledge gap that provides the need for this research was discussed.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter critically reviews research methods appropriate for the collection of primary and secondary data, and how the data collected will be presented and analysed. This is to help investigate the opinions of respondents on how their perceptions of quality service with respect to ISPs' service performance influence Internet service usage in Abuja, FCT, Nigeria. It further justified the criteria for preferring the methods adopted in this research to find appropriate answers to the research questions.

3.2 PHILOSOPHY AND PARADIGM IN THIS RESEARCH STUDY

Different assumptions form the basis for research in an attempt to develop knowledge. This is the reason research philosophy is very much related to the research question. Understanding the philosophy of research methodology helps to enhance and identify the research methods and explains the strategy to be used in a research (Robson, 2002; Creswell, 2003; Creswell, 2007; Saunders *et al.*, 2009; Bajpai, 2011).

According to Saunders *et al.* (2009), research activity is explained as *"a systematic investigation that requires systematic data collection and analysis with the aim of providing new knowledge"*. They also describe research philosophy as developing knowledge in line with the nature of that knowledge. Thus, this research examines the philosophical schools of thought that underpin methodologies and inform research methods and, as discussed by Saunders *et al.* (2009), there are four main research philosophies that are mentioned in this research. These are differentiated by the concept of research paradigms. The philosophies include positivism, realism, interpretivism and pragmatism.

Bryman (2004) describes *"Paradigm as a set of beliefs and dictates that enable scientist researchers in a specific discipline to influence what should be studied, how the study*

should be done and how the findings should be interpreted". It is a belief system that guides the decisions that researchers make (Tashakkori and Teddlie, 1998). Cohen *et al.* (2007) also explained paradigm as the framework that provides the concepts, perceptions and understanding of theories and practices to carry out research activity. Saunders *et al.* (2009), reveal that there are three main components of a research paradigm, which are ontology, epistemology and axiology. These components are used to show the difference between the four main research philosophies, which are mentioned to enable this research to adopt the appropriate research philosophy and paradigm that will provide a better outcome of research activity. The comparative analysis provided by Saunders *et al.* (2009) is shown in Table 3.1.

Table 3.1: Difference between the four research philosophies (Saunders et al., 2009)

	Positivism	Realism	Interpretivism	Pragmatism
Ontology: the researcher's view of the nature of reality or being	External, objective and independent of social factors	Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist)	Socially constructed, subjective and may change	External, multiple views chosen to best enable the answering of research question
Epistemology: the researcher's view regarding what constitutes acceptable knowledge	Only observable phenomena can provide credible data and facts. Focuses on causality and law, reducing phenomena to their simplest elements	Observable phenomena provide credible data and facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which are open to misinterpretation	Subjective meanings and social phenomena. Focuses upon the details of a situation, a reality behind these details, subjective meanings motivating actions	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focuses on practical applied research, integrating

	Positivism	Realism	Interpretivism	Pragmatism
		(critical realism). Focuses on explaining within a context or contexts		different perspectives to help interpret the data
Axiology: the researcher's view of the role of values in research	Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Research is value-laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact the research	Research is value-bound, the researcher is part of what is being researched, the two cannot be separated and so will be subjective	Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view
Data collection techniques most often used	Highly structured, large samples, measurement, quantitative, but can use qualitative measures as well	Methods chosen must fit the subject matter, quantitative or qualitative	Small samples, in-depth investigations, qualitative	Mixed or multiple method designs, quantitative and qualitative

This research adopted the pragmatic philosophy, which is discussed in subsequent subsection.

3.2.1 PRAGMATIC PHILOSOPHY

Pragmatism is not restricted to any one system of philosophy and reality (Cherryholmes, 1992; Morgan, 2007 and Creswell, 2014). *“It is a philosophical view that connects the selection of approach directly to the purpose and nature of the research questions”* (Creswell, 2014). It is often a multi-purpose tactic that allows the researcher to address questions that do not fit comfortably within a complete quantitative or qualitative approach (Armitage, 2007). It is a view whereby researchers make use of a mixed methods approach that involves using both quantitative and qualitative approaches (Rossman and Wilson, 1985 cited by Creswell, 2014). Studies by Cherryholmes (1992), Morgan (2007) and Creswell (2014) show that pragmatic philosophy applies mixed methods and various

approaches that enable researchers to freely obtain both qualitative and quantitative methods for analysis in their researches. They also show that it enables researchers to have the freedom to select any research methods, techniques, and procedures that would be best appropriate to achieve their objectives. Thus, the choice of adopting pragmatic philosophy for this study guided the researcher to employ the use of mixed methods that allow qualitative focus group discussions for exploratory study, extensive research using survey questionnaires to obtain quantitative data and interviews (qualitative) to be conducted in order to accomplish the research objectives.

3.2.2 ONTOLOGY, EPISTEMOLOGY, AXIOLOGY AND METHODOLOGY

The ontological, epistemological, axiological and methodological characteristics of the adopted pragmatic research paradigm are briefly explained as follow:

- (i) Ontology (i.e., the view of the researcher on the nature of reality or being). The pragmatic paradigm allows for the multiple views chosen to best answer the research question.
- (ii) Epistemology (i.e., the view of the researcher regarding what constitutes acceptable knowledge). For the pragmatic philosophy either or both of these observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focuses on practical applied research, integrating different perspectives to help interpret the data.
- (iii) Axiology (i.e., the role of values in research as viewed by the researcher). The pragmatic philosophy gives values to the interpreting of results and adopting both objective and subjective points of view by the researcher.
- (iv) Methodology (i.e., the most often used data collection techniques). The pragmatic philosophy enables the mixed methods of qualitative and quantitative assumptions in achieving research objectives.

3.3 RESEARCH APPROACH

Creswell's (2014) study describes research approach as the plan and procedure for a research method that enables broad assumption to be further evaluated via a method of data collection, analysis, and interpretation. The study shows that the approach applied to a particular research method is best selected in line with the philosophical assumptions that the researcher provides to the study, how he intended that investigation be conducted in the research along with the particular research methods of collecting data, analysis and interpretation. It further explains that the selecting of the research approach is based on the nature of the research, the researchers' personal experiences and the research study targets. Saunders *et al.* (2009) show two main research approaches, which are both deductive and inductive reasoning approaches.

3.3.1 DEDUCTIVE AND INDUCTIVE REASONING APPROACHES

Deductive and inductive reasoning approaches are basic distinctions in logic reasoning that have been carried over into contemporary research (Ojo, 2011). Deductive reasoning commences its study from something more general to the more specific (Robson, 2002; Descombe, 2007). It starts with the use of a theory that is narrowed down to observations and addresses a hypothesis that is tested with data to confirm or invalidate the original theories (Saunders *et al.*, 2009). It seeks in research for causal relationships between variables, hypotheses testing and the involvement of a highly structured methodology that ensures research reliability and validity (Saunders *et al.*, 2009; Okunola, 2015). Five sequential stages by which deductive research will progress, as listed by Robson (2002); Saunders *et al.* (2009) and Okunola (2015) are as follows:

- (i) Formulation or deducing of hypothesis from theory to being tested.
- (ii) Expression of hypothesis in operational terms that involve proposing a relationship between two variables or specific concepts.
- (iii) Testing this operational hypothesis.

(iv) Examining the outcome from the inquiry.

(v) If need be, upon the findings from the inquiry, the theory can be modified.

In contrast inductive reasoning is from something more specific to something more general (Robson, 2002; Descombe, 2007). It starts from observation of patterns to hypothesis and theory formulation (Descombe, 2007). Inductive approach helps researcher to think about those research strategies and choices that will best work for a particular area of research and those that will not. It requires the researcher first of all to make observations and subsequently devise a theory by the analysis of data (Saunders *et al.*, 2009).

Although there is an impression that there are distinct separations between deduction and induction, yet it is perfectly possible to combine deduction and induction within the same research, and it is often advantageous to do so (Saunders *et al.*, 2009). In this research, both the inductive and deductive approaches are used. This study conducted exploratory study through focus group discussions (i.e., inductive) and applies existing service quality or service performance models to test customers' perceptions of ISPs' service performance via survey questionnaires (deductive).

3.4 RESEARCH METHODS

This research adopted mixed methods, and this is discussed in the following sub-sections.

3.4.1 MIXED METHODS

The mixed methods approach comprises both the qualitative and quantitative methods (Saunders *et al.*, 2009; Ihuah and Eaton, 2013; Creswell, 2014). It involves making inquiry via data collection with both methods (Creswell, 2014). That is the integration of two forms of data collections, applying distinct designs. It provides a better and more comprehensive understanding of the problem of research than using only one method (Creswell and Plano Clark, 2011; Creswell, 2014).

Literature has shown the need to improve the quality of Internet services in Nigeria as there are complaints – amongst others – of poor Internet network quality, inadequate service delivery and high cost of accessing services (Nigeria Consumer Satisfaction Survey, 2012; Uduchukwu, 2013; Kuboye, 2017; Gillwald, 2018; Digital Economy Diagnostic Report, 2019; Freedom House, 2020). This implies that there is the need for ISPs to enhance their service performance. Hence, there is a need for this study to develop a robust model that would help to adequately evaluate ISPs' service performance.

Based on the nature of this research, which involves the need to find out the key issues of concern that can be obtained through the engagement of stakeholders of Internet services face to face through focus groups or interviews (qualitative), to correspond with the literature review; sampling the larger population for wider opinions through utilising survey questionnaires to obtain quantitative data; and validating quantitative analysis findings with further interviews to achieve an accurate research outcome; the researcher has to apply the research philosophy and method that would be appropriate to adequately conduct these research activities. Hence, the adoption of the pragmatic philosophy that allows mixed methods involving both qualitative and quantitative methods. This will allow the researcher to conduct sequentially focus group discussions (qualitative), questionnaires survey (quantitative) and interviews (qualitative). The qualitative and quantitative research methods are discussed in the following sub-sections.

3.4.2 QUALITATIVE METHOD

This is a method that ascertains and understands the reasoning of individuals or groups who ascribe to a social or human problem (Creswell, 2014). *“It is usually an inductive reasoning approach to a method of research that endeavours to determine a subject when the variables and the theory base are not known”* (Creswell, 2009). This approach consists of question development, procedures and collection of data, that are collected in

particular within the participant's setting and which are analysed using the inductive approach from the specific to the general themes, allowing the data to be easily interpreted by the researcher (Creswell, 2014).

3.4.3 QUANTITATIVE METHOD

According to Creswell (2009), the quantitative approach is a research approach that *“investigates social or human problems based on the testing of a theory that is composed of variables measured with numbers”*. It is analysed with numerical procedures, so as to determine whether the prognostic generalisations of the hypothesis hold true. Creswell's (2014) shows that it is an approach for testing objective theories by examining the relationship among variables where the variables, in turn, can be measured, typically on instruments, to enable numerical data to be analysed using statistical procedures. It also states that it is usually a deductive technique of research.

3.5 RESEARCH STRATEGY

Most times, the provision of strategies to several approaches is not as easy as it seems to be and there is no research strategy that is basically better than the others (Saunders *et al.*, 2009). Therefore, the most important component is not the name that is attached to a specific strategy, but rather that the researcher will be able to answer the specific research question(s) and achieve the research objectives. Thus, the choice of research strategy is guided by the research question(s) and objectives, the extent of existing knowledge, the amount of time and other resources that are underpinnings (Saunders *et al.*, 2009).

Some strategies amongst others in research activity include Experiment Strategy; Case Study; Action Research; Grounded Theory; Ethnographic Research; Archival Research and Survey Strategies (Robson, 2002; Pearce-Moses, 2005; Trochim, 2006; Grounded Theory Institute 2008; Saunders *et al.*, 2009; Creswell, 2014; Stringer, 2014). This

research used a survey questionnaire to collect numerical data (quantitative), while using focus group discussions and interviews to obtain qualitative data.

3.5.1 SURVEY STRATEGY

According to Saunders *et al.* (2009) and Creswell (2014), the Survey Strategy is common in business and management research and is usually related to the deductive approach. It is normally used for the collection of great amounts of data from a substantial population in a highly economical way through the use of a questionnaire administered to a sample group of users (Saunders *et al.*, 2009; Creswell, 2014). The data are standardised, easy for comparison and can be analysed quantitatively using descriptive and inferential statistics (Saunders *et al.*, 2009; Creswell, 2014).

3.6 RESEARCH ACTIVITIES IN THIS STUDY

This research study employs the exploratory study via the focus group discussions conducted by the researcher to bring out the key issues of concerns pertaining to Internet service delivery. The focus group study was used to confirm the literature reviewed, as the findings collected from the focus group corresponded with the literature under review, which in turn guided this study into further extensive research by means of survey questionnaires.

This study also makes use of the descriptive research that seeks to provide a detailed account of observations of activity without exploring the causal relationships involved within the situation (Saunders *et al.*, 2009; Okunola, 2015). This was to provide accurate profiles of people and situations (Robson, 2002; Okunola, 2015).

Furthermore, this research employs the explanatory research strategy that sought to evaluate and explain the causal relationships between variables or measures by testing hypotheses so as to provide the extent to which the variables relate to each other through quantitative data, using statistical means, formulas or techniques to arrive at the results (Saunders *et al.*, 2009, Okunola, 2015).

3.7 RESEARCH POPULATION, SAMPLE SIZE AND SAMPLING TECHNIQUES

3.7.1 RESEARCH POPULATION

Creswell (2012) describes the research population as the larger group from which individuals are selected to participate in a study. It also reports that the target population is the whole group of individuals on which the research tends to make its conclusions. It is referred to as the theoretical population (Explorable, 2009). For this research, the entire FCT, Abuja of Nigeria comprises the target population. The population of the Federal Capital Territory (FCT), Abuja, was 1,406,239 people as at 2006 when the census was conducted but as at 2016, the population was estimated to be 6 million people that are resident in FCT, Abuja, Nigeria (Jaiyeola, 2016). This implies that the target population for this particular research is estimated to be 6 million people.

The study population, known as the accessible population, is the population that can be accessed out of the target population during the research. According to Explorable (2009), the study population is the area from which the research can obtain its samples. Adepetun (2017) reports that the FCT, Abuja has 4,359,372 Internet users as at 2017, which represents approximately 73% of the target population of 6 million people in FCT, Abuja.

3.7.2 STUDY SAMPLE SIZE

In research, it is often not practicable to survey everyone in the study population as the number of people is normally very large. Thus, there is the need to take a sample from the study population and a sample is described by Field (2005) as a smaller collection or unit of the population being researched to determine the facts about that same population. The study data collections were carried out from respondents residing in FCT, Abuja, Nigeria.

3.7.2.1 DETERMINING SAMPLE SIZE FOR THIS RESEARCH STUDY

In determining the sample size for this research, the size of the entire population of FCT, Abuja, which is an estimated 6 million people with a sampling error of + or -3% and 95% certainty or level of confidence is considered (Krejcie and Morgan, 1970; Saunders *et al.*, 2009). The formula is used to calculate the sample size for this research and is as follows:

$$S = \frac{X^2 NP (1-P)}{d^2(N-1) + X^2 P (1-P)}$$

Where: S = Required Sample Size.

X^2 = The table value of chi-square for 1 degree of freedom at the desired confidence level, which is $(1.96)^2$ i.e., $1.96 \times 1.96 = 3.8416$.

N = The Population Size.

P = The Population Proportion (assumed to be 0.50 since this would provide the maximum sample size).

d = The degree of accuracy expressed as a proportion (0.03).

Source: (Krejcie and Morgan, 1970; Saunders *et al.*, 2009).

Therefore, the minimum sample size for respondents to be surveyed based on the above formula with respect to the population of FCT, Abuja, which is estimated to be 6 million people is:

$$S = \frac{3.8416 \times 6,000,000 \times 0.5 (1 - 0.5)}{(0.03)^2 (6,000,000 - 1) + 3.8416 \times 0.5 (1 - 0.5)} = 1,067 \text{ respondents}$$

This implies that the minimum sample size to be surveyed in FCT Abuja, Nigeria, as indicated above is 1,067 respondents. However, to improve on the margin of error, this particular research used the sample size of 1,504 respondents (i.e., 1,504 responses were obtained online during data collections). Also, the sample size is valid and reliable for the context as the number (1,067 or 1,504) is greater than 5 to 10 times the number of items (questions) in the questionnaire ($10 \times 31 \text{ questions} = 310 < 1,067$).

3.7.3 RESEARCH SAMPLING TECHNIQUE

Trochim (2006) describes sampling as a process of selecting a unit, such as people or organisations, from a population of interest in a manner that the results from the study sample would fairly generalise the population of interest. Sampling methods can be divided into one of two categories that include probability or representative sampling and non-probability or judgmental sampling methods (Pennsylvania State University, 2017; Saunders *et al.*, 2009). These are discussed below.

3.7.3.1 PROBABILITY SAMPLING

Probability sampling is a method whereby the sample has a known probability of being selected (Pennsylvania State University, 2017). Probability sampling is a representative sampling where, the chance or probability of each case being selected from the population of interest is known and is normally equal for all cases (Saunders *et al.*, 2009).

3.7.3.2 NON-PROBABILITY SAMPLING

The non-probability sampling is a technique in which the sample does not have known probability to be selected as in convenience or voluntary response surveys (Pennsylvania State University, 2017). It is a method such that every individual in a population does not have an equal chance of being selected (Cherry, 2017). The non-probability sampling as applied in this research are:

- (i) Convenience Sampling Technique: This is a technique where selection may be unguided and all members of the population have an unequal chance of being chosen. It is also referred to as an accidental sampling (Creswell, 2003; Okunola, 2015).
- (ii) Purposive Sampling Technique: This is a judgmental sampling that allows a researcher to select cases that best answer research questions and achieve objectives (Saunders *et al.*, 2009). It allows the researcher to select a designated sample of

population that are knowledgeable on the issues of interest pertaining to this research (Creswell, 2003; Okunola, 2015).

The convenience sampling allows the researcher to sample participants of the target population who meet certain criteria that are practical, such as the willingness of the participants to participate; easy accessibility to the participants; participants that are geographically close and available at a given point in time (Etikan, *et al.* 2016).

It was combined with a purposive sampling technique to reduce any inadequacy that might lead convenience sampling to be biased in results. The purposive sampling enables the researcher to target the sample of population (i.e., respondents) that use Internet services and are knowledgeable about issues pertaining to quality Internet services, who will be able to provide the required data/information to answer the research questions and achieve the research objectives (Saunders 2009; Okunola, 2015).

3.8 RESEARCH DESIGN

The research design to address the objectives of this study is shown in Figure 3.1. The design revolves around the research objectives to give a clear idea of the research title and to assure logical flow. The design commenced with title, rationale, aim and objectives of the study. It is followed by research project risk and mitigating action. The design also considered the reviews of related literature on existing research works to identify the knowledge gap and also led to theoretical/conceptual frameworks for the research.

It also indicates the research methodology that shows that a pragmatic research philosophy/paradigm was adopted for the study along with the mixed methods approach using focus groups and semi-structured interview techniques for collecting non-numerical data, and survey questionnaires for numerical data collection. The research method flows from a qualitative method (focus groups) to extensive study using the quantitative method, in which questionnaires are developed for data collection and it is followed by data

analysis, which is validated by semi-structured interviews (qualitative) which leads to a conclusion and recommendations from the research.

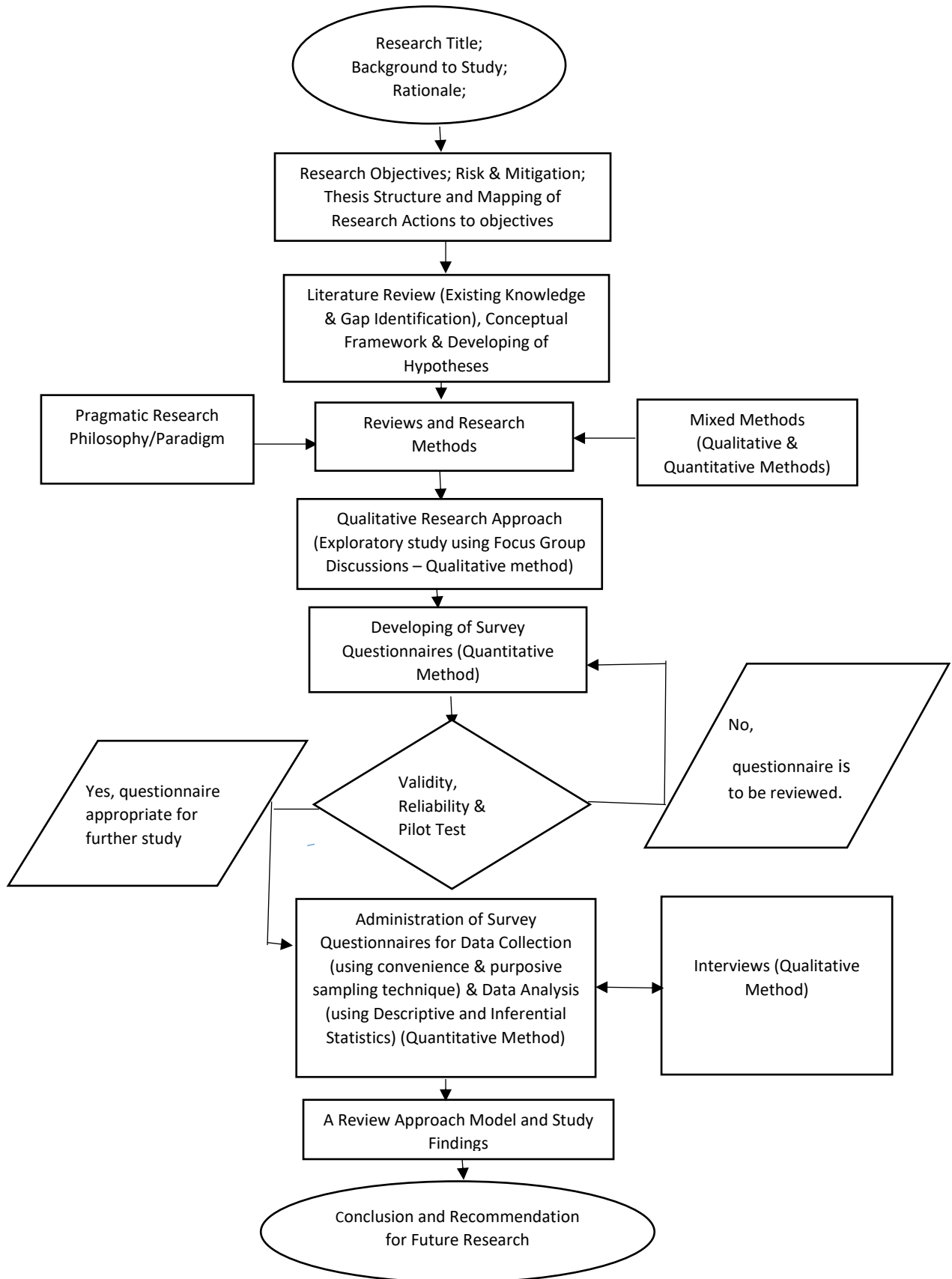


Figure 3. 1: Research Design for this Study

3.9 ADOPTING/ADAPTING SCALES FOR ISPs' SERVICE PERFORMANCE, CUSTOMER SATISFACTION, BEHAVIOURAL INTENTION (CUSTOMER LOYALTY) AND THE MODERATORS

Based on the literature review, scales already tested by extant studies were adopted and adapted for ISPs' service performance, customer satisfaction, behavioural intention (customer loyalty) and the moderators as constructs for the measurement of variables in the above-mentioned conceptual framework in Figure 2.6 of Section 2.8 and the testing of the hypotheses formulated for this research in Section 2.9.

3.9.1 ISPS' SERVICE PERFORMANCE SCALE

To derive the most suitable constructs for scale that would be used to evaluate the service performance of ISPs in this research, studies whose scales are closely related were considered. The service performance scale from a study conducted by Ho and Wu (1999) that shows dimensions, and which focuses on customer satisfaction with online shopping on the Internet was carefully studied. After studying, the performance scale was found to be related but would not be suitable for evaluating ISPs' service performance without major modification and testing, as this was designed to test for customer satisfaction of online shopping services in a cyber shopping store. However, the study by Thaichon *et al.* (2014) also used a service performance scale whose dimensions were tested within the ISPs context, having similar features with the service performance scale of the study of Vlachos & Vrechopoulos (2008) that is related to service quality. However, the Internet service quality scale from the study of Thaichon *et al.* (2014) seems more encompassing and recent. So, this researcher looked at it as being much more appropriate and thus adopted it as a scale to evaluate ISPs' service performance in this research. Thus, the dimensions to test ISPs' service performance are as follow:

- **ISPs' Service Performance Scale**

Network Quality

NQ1 - No experience of Internet disconnection from my ISP.

NQ2 - The downloading and uploading Internet speed from my ISP meet my expectations.

NQ3 - Regardless peak or off-peak hours, this does not affect my Internet speed from my ISP.

Customer Service and Technical Support

CS&TS 4 - Customer service staff from my ISP are knowledgeable.

CS&TS 5 - Customer service staff from my ISP are willing to respond to my enquiries.

CS&TS 6 - There is prompt resolving of technical problems.

Information Quality

IQ7 - My ISP provides sufficient information.

IQ8 - My ISP provides up-to-date information.

IQ9 - My ISP provides relevant information.

Security and Privacy

SP10 - Personal information is protected my ISP.

SP11 - Financial information is protected my ISP.

SP12 - Transactions with my ISP are secured.

Source: Adapted from Thaichon *et al.* (2014).

3.9.2 SCALE FOR CUSTOMER SATISFACTION, CUSTOMER LOYALTY (BEHAVIOURAL INTENTION) AND COST OR PRICE OF INTERNET USERS' ACCESS

Cheng *et al.* (2008) show scale to measure customer satisfaction that was adopted from Oliver's (1980) instrument for assessing customer satisfaction. The scale for customer loyalty (Behavioural Intention) was adopted from the assessment of latent construct recommended by Berne (1997) to measure the attitudinal aspect of a customer. These scales are all appropriate and suitable for adoption in this current research, but a more recent study by Joudeh *et al.* (2018) adapted and tested similar scales for evaluating customer satisfaction and customer loyalty as well as for the price of Internet users' access within the ISP sector. These scales by Joudeh *et al.* (2018) are suitable and more

recent. Thus, they are adopted and adapted in this research to evaluate customer satisfaction, customer loyalty (behavioural Intention) and price of Internet users' access within the Internet service delivery context. These scales are as follow:

- **Customer Satisfaction**

CS1 - My choice of my ISP was a wise one.

CS2 - I am satisfied with my ISP.

CS3- I am pleased to use the service by my ISP.

CS4- Services provided by my ISP are excellent.

Source: Adopted from Joudeh *et al.* (2018)

- **Behavioural Intention (Customer Loyalty)**

BI1 - I will deal with ISP more in future.

BI2 - I would consider my ISP as my first choice.

BI3 - I will say favourable things about my ISP.

BI4 - I will recommend my ISP to other people.

BI5 - I will be a loyal customer of my ISP.

BI6 - I will not switch to competitors if my ISP increases price somewhat or a little.

Source: Adapted from Joudeh *et al.* (2018).

- **Prices (Costs) of Internet Users' Access**

P1 – My ISP provides reasonable prices.

P2 – My ISP provides competitive prices.

P3 - My ISP provides various price offers.

P4 - If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP.

Source: Adapted from Joudeh *et al.* (2018).

3.9.3 SCALE FOR INTERNET BANDWIDTH CAPACITY AS A MODERATOR

Kuboye's (2017) study on "*Evaluation of Broadband Network Performance in Nigeria*" reveals the scale used to evaluate the broadband services and some part of the scale is related to this research, and this is considered along with the scale from Grepott (2018). They are modified and tested to provide a suitable scale that is used to evaluate the interaction of Internet bandwidth with ISPs' service performance. The adapted scale is shown below.

- **Internet Bandwidth**

IB1 - Surfing the Internet.

IB2 - Streaming videos.

IB3 - Downloading and uploading of files.

IB4 - Perform online transaction.

IB5 - If I notice a shortfall in bandwidth delivered to me by my ISP? I will leave my ISP for another service provider.

Source: Adapted from Kuboye (2017) and Grepott (2018).

The scales adapted as discussed above for the evaluation of ISPs' service performance, customer satisfaction and behavioural intention (customer loyalty) as well as the moderators are operationalised and used to develop questionnaires that are used for data collections from respondents.

3.10 DATA SOURCES

In this research, the data sources are through primary and secondary sources. The primary source was through focus group discussions, questionnaire administration and semi-structured interviews. Focus group discussions (i.e., qualitative method) provided key issues of concerns from stakeholders of Internet services. These correspond with the literature reviewed and guided for extensive research using questionnaires that were distributed across the study population by the researcher, to obtain quantitative data

through an online questionnaire link made available through google forms by email and WhatsApp platforms. The responses obtained from the online platform link are 1,504. Also, semi-structured interviews were conducted by the researcher on 25 participants, which findings were then used to validate the findings from quantitative data.

The secondary sources were data from relevant literature reviews that include journals, reports, papers and articles, amongst others from individuals, academic institutions and other relevant organisations. Relevant websites and portals of institutions or organisations were visited, and relevant documents related to the study were retrieved. All these were duly referenced.

3.10.1 DESIGN AND ADMINISTRATION OF QUESTIONNAIRE

Qualitative and quantitative questions were designed to evaluate the perceptions of customers (Newman *et al.*, 2011). The first aspect of the qualitative method was through the focus group study which has five main questions with two of these questions having sub-questions. These questions were used in ways that will appropriately reflect the context, perspective and understanding of the different participant groups of the focus group study.

After the focus group study, an extensive study was conducted and the researcher administered questionnaires by adopting a self-administered approach for the quantitative data gathering via online. The questionnaires were structured into six sections. This approach was chosen on the premise that it protects the participants' identity, enhances easy distribution across a large number of Internet users, and ensures that participants can complete with less stress of writing because it is technology driven. The researcher ensured unambiguity in the questionnaire's design so participants can understand the requirements of every question with very little or no support.

To validate the findings from the questionnaires analysis, the interview conducted mainly by the researcher for qualitative data was structured into six different sets of semi-

structured questions. Both structures for the questionnaires and semi-structured interview questions were designed to address the research objectives. The data collection techniques of focus groups, questionnaires and interviews used in this study are explained in subsequent sub-sections.

3.10.1.1 FOCUS GROUP

Focus group has been described as a small structured and interactive group with selected participants, which is coordinated by a moderator to explore a specific topic and individuals' views and experiences (Litosselili, 2003). It is a carefully planned group interactive discussion to obtain perception on a definite area of interest in a permissive and non-threatening environment (Krueger, 1994).

Focus group discussion used in a qualitative approach, allows selected participants and the researcher to be in one place at the same time (Krueger, 1994 and Morgan et al., 1998). It is frequently used qualitatively to obtain an in-depth understanding of issues from a targeted group of participants (Nyumbia *et al.*, 2018). According to Okunola (2015) and Durrance *et al.* (2005), focus groups include: a data collection technique frequently used to obtain in-depth attitudes, group beliefs, and anecdotal data from a small group of participants at one time. It has group dynamics that could generate more ideas than individual interviews. But it needs time and commitment for the researcher to identify the participants, set up and coordinate the group.

3.10.1.2 QUESTIONNAIRES

A questionnaire is a tool used to collect data, with a set of questions that are systematically placed to enable the extraction of the required responses from the respondents and which is needed to measure research variables in a particular research topic (Oppenheim, 2005; Creswell, 2009). According to Oppenheim (2005), there are closed and open-ended types of questions.

The closed question type allows the respondents to have choices of responses (i.e., to make a choice of either “Yes” or “No”) and at times it could be such as the degree or extent to which respondent agrees with the questions. The open-ended questions, however, allow the respondents to be free to indicate what they feel or believe is the appropriate response to the question being asked, as they are not restricted or limited to any choice of response. Thus, the open-ended questions enable the respondents the liberty to provide their own points of view (Oppenheim, 2005; Okunola, 2015). This research applied both the closed question type for the quantitative data collection and open-ended question type for the semi-structured interview.

3.10.1.3 SCALING OF QUESTIONS

According to Bernard (2013), scale is used as an instrument to assign units of analysis for ranking of variables that categorise the response of an individual respondent to a question. It also compares response of a group to questions and is used for the measurement of dimensions, underlying a set of ratings or rankings (Bernard, 2013). Trochim (2006) described scaling as the manner of measurement that deals with the construction of an instrument that relates with qualitative constructs and quantitative units. The widely used Likert scale that was applied in this research was developed by Rensis Likert in 1932 and is used to measure the responses or attitudes of respondents to sets of specified statements on a particular research topic. Also as explained by McLeod (2008), the Likert scale shows respondents’ degree of agreement in line with statements, which results in the cognitive and affective component of the respondents’ attitudes.

3.10.1.4 INTERVIEWS

Gillham (2000) described an interview as a conversation that is normally between two people of which the interviewer seeks responses from the other person for a particular purpose. It explains that in market research, interviews do help to gather information that

would assist in enhancing the development and marketing of a product or service. It further indicates that it can help to collect information and understand issues relevant to the general aim and specific questions of a research project.

Durrance *et al.* (2005), indicate that it is a good approach for obtaining in-depth attitudes, beliefs and anecdotal data from individual participants and allows a researcher to have personal contact with participants, which might enhance the better and more detailed information to be obtained.

In qualitative research, samples seem to be small so as to support in depth analysis (Spencer *et al.*, 2003). In this research, purposive sample was used for the semi-structured interviews conducted, as the participants for the interview are recruited based on their capacity to provide rich and relevant information on the research topic (Vasileiou *et al.*, 2018). Experts in qualitative research argue that there is no straightforward response to the number or sample size for interview (Baker and Edwards, 2012). But Sandelowski (1995) suggests that sample sizes for qualitative research should be adequate to reveal new rich and relevant information, but also small enough to have a deep analysis on the research topic. Morse (2000) proposed that more useable data be collected but from fewer participants. Beyond giving guidance in determining sample size for qualitative research, specific numerical recommendations have also been provided based on the experience of experts on qualitative research. For instance, Green and Thorogood (2004) state *that “most qualitative researchers experience that interview-based studies generate little new information or otherwise present repetitive information after interviewing 20 people”*. Likewise, Ritchie *et al.* (2003) believes that studies that employ individual interviews, should conduct interviews of not more than 50 interviewees for the researchers to be able to manage the task involved in analysis. However, the most widely used principle employed to determine sample size for qualitative research is the

notion of saturation, that is, at the point where no further dimensions, nuances or insights of issues are identified. Hennink *et al.* (2017).

Based on the above discussions, the 25 participants sample size that was obtained for the interviews for this research was as a result of the trend of patterns and themes of their responses, which at a certain stage of the interviews became saturated and no more new information was provided.

Emails and WhatsApp were used to contact identified persons who are knowledgeable on Internet services within the location of the research, to invite or recruit them for the interview. Semi-structured interviews were conducted by the researcher, with those who consented, by face-to-face interviews (i.e., one on one) and some were done by telephone. The interviews were recorded, transcribed and analysed through thematic analysis technique.

3.10.2 QUALITY CONTROL OF DATA COLLECTION

The data collection was done through online platform, avoiding the use of research assistants who could possibly influence the completion of the questionnaires. This helps to alleviate induced bias circumstances in the completion of the questionnaires by respondents, therefore, maintaining data collection integrity. Collation of data collected during the survey exercise was done using online platform (google forms), which help for proper data collation.

3.11 METHODS OF DATA ANALYSIS

The data collections for research were carried out sequentially, using qualitative method via focus groups, then quantitative method using questionnaires and qualitative again through interviews. The qualitative method using Focus Group study was conducted after the literature review among Internet service stakeholders on different occasions. The focus group discussions were audio recorded, transcribed and analysed using thematic

analysis technique. It helps to show in-depth description of issues of concern from the customers' points of view in the area of ISPs' service performance with respect to network quality and customer care services amongst others. Also, from the ISPs, Policy and Regulatory Agencies perceptions, issues of concern mentioned by them, amongst others, are inadequate connectivity backbone infrastructure that include electricity power supply; insufficient bandwidth facility leading to network congestion; and inadequate policy and regulation on Internet service provision to address issues of multiple taxations and regulations. These led to the issues of poor network coverage and quality; inadequate Internet bandwidth and high cost of providing Internet service by the ISPs, which consequently led to a higher price for Internet users' access. Some of the issues discussed in focus groups moderate Internet service provision and uptake. The purpose of the focus group study was to ascertain if the findings from it will correspond with the literature review and to see the need for extensive research. It was discovered that the findings from the focus group study bring out issues of concern that were corroborated by the literature review, which necessitates the need for these issues to be further examined through sampling a larger population via survey questionnaires for wider opinions.

After the focus group study, the questionnaire developed, which was informed by previous researches on ISPs' service performance, customer satisfaction, behavioural intention, Internet bandwidth and prices of Internet users' access, as well as the findings from focus group study were administered to carry out a pilot test. This was to ensure that the questionnaire was adequate to obtain the relevant information that is required. Subsequent to this, the appropriate questionnaire was administered to obtain quantitative data for analysis using statistical tests that involve descriptive and inferential statistical methods. The quantitative data analysis was carried out at three levels of analysis i.e., Univariate, Bivariate and Multivariate Data Analysis using Statistical Package for Social

Science (SPSS). The initial stage of the analysis involved the Kaiser-Meyer-Olkin that was employed to assess the adequacy of sample size for analysis and the Cronbach Alpha Test was used to check the reliability of the instrument which indicated a scale reliability coefficient of at least 0.9 and above. The univariate analysis level used the percentage and frequency distribution as well as mean, standard deviation, the maximum and minimum parameters. This level of analysis was used to enable the researcher to describe and assess the demographic characteristics of the respondents, various components of ISPs' Service Performance, Customers' Satisfaction and Behavioural Intention.

The analysis procedure further used analysis of variance (ANOVA) independent sample test to examine mean difference of the explanatory variables across the outcome variables (Bivariate). For instance, it is used to examine whether there is mean difference between the level of customers' satisfaction based on the other explanatory variables (network quality and price of Internet users' access). This allows for the use of Pearson Correlation Coefficient. Thus, Correlation Matrix was used to display the degree of relationship between the variables with 0.05 level of significance

For testing of hypothesis and modelling, multiple regression analysis was adopted (Multivariate). The regression models were used to analyse the hypotheses and objectives of this study. The model statistics (f-statistics, level of significance Adj R-square) from the regression results were used to compare models; while coefficients, p-value and 95% confident interval were used to interpret the models. The representation and display of data such as figures, tables, graphs, bar charts, and written interpretation of statistical results or findings were carried out.

As a follow up to the survey questionnaires conducted, semi-structured interviews (qualitative method) were conducted by the researcher. The interviews were audio recorded, transcribed and analysed using the thematic analysis. The qualitative analysis

outcome from these interviews was used to validate the outcome from the quantitative analysis. This is to ensure that this research provides a relevant and accurate result.

3.11.1 THEMATIC ANALYSIS

Thematic analysis is a qualitative analysis technique that is widely used by researchers (Boyatzis, 1998; Roulston, 2001) but there is no consensus clear enough on how to define thematic analysis (Attride-Stirling, 2001; Tuckett, 2005). However, Braun & Clarke (2006) described thematic analysis as a technique that can be used to identify, analyse and report themes or patterns within the qualitative data obtained in the research. It concentrates on examining themes or patterns of meaning within qualitative data (Daly *et al.*, 1997) and can interpret different areas of research topic (Boyatzis, 1998).

Thematic analysis involves coding and theme. Coding is primarily used to develop themes that identify items of interest to be analysed in the qualitative data (Boyatzis, 1998). Theme described patterns of shared meaning within data items that are supported by a central concept, which are significant in understanding the phenomenon and are appropriate for the research question (Braun and Clarke, 2019).

Boyatzis (1998) and Braun and Clarke (2006) also show that data to be analysed can be coded and themes can be identified at different levels, which include semantic and latent levels. They indicate that a thematic analysis can focus on both levels or one of the levels and explained that semantic codes and themes show the obvious and surface meaning of the data being analysed, while the latent codes and themes capture the underlying ideas, patterns and assumptions that are in the data to be analysed.

Braun and Clarke (2006) show six phases or steps as processes to conduct thematic analysis and these are enumerated as follows:

- (i) Familiarising with the data being analysed, which involves transcribing, reading and proof reading and the initial ideas are noted.

- (ii) Generating the initial codes from the data being analysed by coding features of interest of the data in a systematic manner and relevant data to each code are collated.
- (iii) Searching for the themes as codes are collated into potential themes and collecting all data that are relevant to each potential theme.
- (iv) Review the themes by cross-checking that the themes work with respect to the first level coded extracts and second level, which is the entire data set, and thereby generate a thematic map for the analysis.
- (v) Define and name the themes by continuous analysis to refine the specifics of each theme, and the analysis overall story, to generate clear definitions and names for each theme.
- (vi) Produce the report of the analysis and while writing this, the researcher should ensure the use of appropriate themes that will make meaningful contributions to providing answers to research questions.

3.12 VALIDITY AND RELIABILITY OF DATA

The validity and reliability of the questionnaires were carried out to check by confirming that the questionnaires were suitable for obtaining the required quantitative data to be measured from the respondents. According to Newman *et al.* (2011), validity is the best way a test measures what it is meant to measure, while reliability refers to the extent to which an assessment tool provides stable and consistent results (Newman *et al.*, 2011). There are four basic validity types and three reliability types in a study like this. The different categories will be discussed below.

- **Validity**

Face validity ascertains the extent of trust between the meaning and analysis of a phenomenon. It helps to show validity without empirical study [Cook and Beckman, 2006].

This study ensured face validity by making sure only Internet users within the study population participated in the survey.

Content validity involves the level to which every part of the subject area is substantially represented (Davis and Michelle, 2011). The analysis chapter ensures that every part of the phenomenon was considered.

Construct validity involves the analysis that deals with several indicators and tackles uniformity in the processing of the several indicators as well as the extent to which the analysis represents the phenomenon that is being analysed (Muijs, 2011). This was ensured in the literature review chapter of this study.

Criterion validity involves the presentation of correlation or relationship between the instrument that is of interest, which is being measured, and another instrument that has been provided to be a standard of the same construct being measured (DePoy and Gitlin, 2016).

- **Reliability**

Stability reliability emphasises where the 'test-retest' procedure generates related basic consequences of findings. In basic terms, it emphasises a situation where a similar arrangement of analysis is used for a second test. This is an expensive approach which the researcher did not consider on the premise of cost and the fact that it would not be feasible to meet the same participants for a second test (Muijs, 2011).

Representative reliability is another type of reliability that considers the consistency of results across a set of participants or sub-population (Newman, 2014). This research considers different groups and subgroups which consist of male and female, age, educational background, and profession.

Equivalence reliability emphasises a situation where there exist various measures for a precise phenomenon, especially where these measures exhibit comparable characteristics (Muijs, 2011). Cronbach alpha is usually used for analysing reliability of

various measured phenomena. On this premise, this study employed the Cronbach alpha to measure data reliability.

3.13 RATIONALES FOR THE CHOICE OF METHODOLOGY ADOPTED IN THIS RESEARCH

The rationales for adopting the choice of methodology used in this research are discussed in the sub-sections below.

3.13.1 RATIONALE FOR THE CHOICE OF PHILOSOPHY/ PARADIGM

This research has adopted the pragmatic philosophy to enable the researcher to apply the mixed methods approach. Pragmatism opens a door for researchers that use mixed methods to multiple methods, different worldviews and assumptions, as well as various forms of data collection and analysis (Morgan 2007 and Creswell, 2014). This research required exploratory study conducted via focus group discussions to obtain the outcome that would be used to corroborate the literature reviewed, to guide for further study via survey questionnaires for quantitative data. The quantitative method was needed to allow an extensive study to be carried out to obtain responses from a larger number of respondents. The interviews of respondents were also needed for the purpose of substantiating the findings from quantitative data with the findings obtained from qualitative data to obtain relevant and accurate research outcome.

Also, the choice of method for a particular line of research, depends upon the assumptions pertaining to the nature of knowledge and reality that allow the choice of a particular research method to be used (Hathaway, 1995 cited by Daniel and Berinyuy, 2010). Consequently, this research adopts a pragmatic approach whose ontological and epistemological assumption, and methodological design are explained below.

- (i) **Ontology Assumptions:** This allows external, multiple views chosen to best enable the answering of a research question (Saunders *et al.*, 2009). In this research, it is assumed that there is a reality that can be perceived i.e., ISPs' service

performance and customer satisfaction are external to customers' perceptions. This placed this study with an objective view of seeing the social phenomena. It is obvious that ISPs endeavour to enhance their performance as well as to improve customer satisfaction, which implies that ISPs' service performance are variables that have effect on customer satisfaction and behavioural intention. Therefore, service performance can be considered when investigating how customers' perception of service quality within ISP Sector would result in customer satisfaction. In view of this, the research adapted ISPs' service performance scale by Thaichon *et al.* (2014) by which structured questions were developed to obtain the respondents' attitudes.

- (ii) Epistemology (i.e., the view of the researcher regarding what constitutes acceptable knowledge (Saunders *et al.*, 2009): In this research, the pragmatic view of epistemology is being considered, which allows either or both observable phenomena and subjective interpretation to be provided based on the research questions. Thus, the rationale for applying this epistemological view in this research. This allows the researcher to focus on practical applied research, bringing in various perspectives to assist in interpreting the data. This is achieved via objective measurement using the measurable ISPs' service performance dimensions. The ISPs' service performance and customer satisfaction exist as realities that are external to the mind of the researcher and the research is using the adopted ISPs' service performance dimensions to ascertain how this model will effectively measure service performance within the ISP Sector. That is, the study is conducted in such a way that the research is influenced by pre-existing models or theories to provide acceptable knowledge as it measures ISPs' service performance. The researcher and respondents are independent from each other, and responses are obtained from the respondents without the influences of the

researcher. So, the researcher ensured that the data collections are guided in a manner that it is not influenced and biased such that the interactions between the researcher and respondents are limited to allow the findings to be fully dependent of the respondents. However, brief explanations are made to the respondents for clarity of the questionnaires, to enable them to provide the appropriate data/information.

3.13.2 CHOICE OF METHOD AND APPROACH

This research applies the mixed methods that involve both the qualitative and quantitative methods as well as the inductive and deductive reasoning approaches. It uses the qualitative data via focus group discussions and individual semi-structured interviews, which involves an inductive reasoning approach. The findings from the qualitative analysis were substantiated with the outcomes of the quantitative analysis.

Quantitative method laid emphasis on the quantification of data collection and analysis that involves the deductive reasoning approach, which are related to theory or model, where the model is tested. The quantitative nature of this research is applied to answer the research questions appropriately as the quantitative method and deductive reasoning approach allow variables to be measured to obtain different attitudes or responses among the respondents with respect to their perceptions about service performance. The quantitative method helps to test the theoretical model of hypotheses and the extent to which it represents the particular context in which the study is carried out.

3.13.3 RATIONALE FOR THE CHOICE OF SAMPLING STRATEGY AND TECHNIQUES

This study adopted the non-probability sampling, using the convenience and purposive sampling techniques. However, it was argued that the likelihood of a sample being representative in convenience sampling is low and selection might be unguided as members of the population have an unequal chance of being selected (Creswell, 2003

and Saunders *et al.*, 2009), the use of a convenience sampling technique allows the research to choose respondents from the available sample that is easy for access (Bryman and Bell, 2007). Actually, it is not possible for the researcher to conduct a probability sampling because there will be no point in time by which all the Internet service users would be available at all times due to their various schedules of programmes during the period when data would be collected without being biased. It is impossible too, to meet everyone that may be sampled and expect over 50% response rate.

Purposive sampling technique was also used in this study. This allows the researcher to identify respondents that use Internet services and are knowledgeable about issues that concern quality Internet services, which will be able to provide the appropriate responses with respect to the research objectives (Saunders 2009; Okunola, 2015). This sample technique was used for the focus group's study and individual interviews were conducted. Those Internet service users that are knowledgeable on matters of quality Internet services are identified and were used as participants in both the focus groups and interviews. This allowed relevant and accurate information to be obtained.

The Likert scale was used for all the required variables in the questionnaire to enable responses to be easily quantified. The Likert scale was used because its rate of reliability and validity is high. The five-point Likert scale was applied in this research rather than the seven-point Likert scale to allow the participants to make appropriate decisions on the questions, when responding. It also makes it easy for the rating of midpoint during analysis and allows a standard point of comparison, and mean weighted average of the data to be easily calculated (Oppenheim, 2005; Okunola, 2015).

3.14 RESEARCH ETHICS

Since the views of consumers were essential to investigations, the protection of participant wellbeing and Interests were paramount in conducting this research (ESRC, 2015). A research proposal and draft information for participants were presented to the

University Ethics Committee for consideration and approval. Research conduct also aligns with the “*six key principles of ethical research*” as stated by the UK ESRC (2015), and presented verbatim below as a framework to describe the precautions implemented for this research.

(a) “*Research participants should take part voluntarily, free from any coercion or undue influence, and their rights, dignity and (when possible) autonomy should be respected and appropriately protected*” (ESRC, 2015). In line with statement, the researcher provided guidelines for focus group discussions, semi-structured interviews and questionnaires that were issued to participants (see Appendix II). Sufficient time was allowed for individuals to fully consider whether they wished to participate. Individuals were asked to complete consent forms to indicate their willing involvement without coercion, manipulation or other inducement (See Appendix III). Especially for the focus group discussions and semi-structured interviews that were facilitated and conducted respectively by the researcher, sessions were conducted so that communications remained courteous and respectful. Respondents spoke one at a time, kept up with questions and responded accordingly to each of the questions.

(b) “*Research should be valuable to give the value that outweighs any risk or harm*” (ESRC, 2015). “*Researchers should focus on maximising the benefit of the research and minimising potential risk and harm to participants and researchers, and every potential risk and harm should be mitigated by precautions that are robust*” (ESRC, 2015). Based on this guideline, the researcher considered every risk and harm that could be associated with this study and this was very minimal. There was this small risk that participants may be disadvantaged, if they and their views were identified but the potential socio-economic benefits of research findings leading to improvements in communication technology and services outweighed this risk. However, such risk was mitigated by informing participants

(in writing and verbally by researcher) of the measures being taken to ensure that survey and interview data remained confidential (See Appendix II).

(c) *“The researcher and participants should be provided with the appropriate information on the purpose, method and proposed use of the research, the level of their involvement in the research and potential risks and benefits, if any, that are involved”* (ESRC, 2015). The administering of the questionnaire for the quantitative data collection was conducted online and appropriate information on the purpose and benefits of the research are contained in the content of the questionnaires. They were also notified that their involvement would lead to a better understanding of priorities for improving the provision of Internet services from which citizens in FCT Abuja may eventually benefit.

(d) *“Every research participant and group that prefer be anonymous and their requirements pertaining to the confidential nature of information as well as their personal data should be respected”* (ESRC, 2015). According to this guideline, a research position was adopted such that all participants were made to remain anonymous. As a result, individuals and organisations participating in the research were not named. Audio recording data was securely stored and protected by password that is accessible only to the researcher. Recordings were deleted following their transcription. Questionnaires were also administered in confidence and participants also remained anonymous.

(e) *“The research design, review and processes should be ensured that they are in line with the recognised integrity standards, and the assurance of quality and transparency are met”* (ESRC, 2015). In view of this, detailed research proposals were submitted by the researcher for review by the research team and the University Ethics Panel. Approval was obtained from the University Ethics Panel. Draft questionnaires were pre-tested to ensure they would be reliable and valid so that the integrity of the research is met. The comments or observations, suggestions as well as corrections that were obtained from the respondents were used to improve the quality of the questionnaires.

(f) *“The independence of research should be made clear, and any conflicts of interest or partiality should be explicit”* (ESRC, 2015). The questionnaire was administered on line for the quantitative data collections which helped to ensure that the views of the parties involved were represented without partiality and that the behaviour/assumptions of the researcher did not influence or introduce bias to the research results.

3.15 EXPLORATORY STUDY

An exploratory study was conducted among identified stakeholders through focus group discussions. The outcome of the exploratory study was used to validate the literature review and that there was corroboration. This subsequently, along with the literature review, guided for the collection of quantitative data via survey questionnaires that relate to both the findings from the literature review and focus groups for the wider quantitative survey. The details of the focus groups are discussed in chapter four.

3.16 PILOT TEST OF QUESTIONNAIRE

Pilot test surveys of questionnaires were conducted to ensure that questionnaires were appropriate for obtaining the type of information that is suitable for responding to the research questions raised. Preliminary analysis of pilot survey data (by Cronbach Alpha Reliability Testing) usefully detected similarities and redundancy among groups of questions and helped to identify and amend questions that were not entirely specific to meeting research objectives. Thus, it assisted in validating the dependability of the questionnaires, tested the content validity and showed the aspects of survey questions that needed improvement.

3.17 RESEARCH SUMMARISED METHODOLOGICAL DESIGN

The methodological design of this research can be summarised as shown in Table 3.2.

Table 3.2: Research Summarised Methodological Design

Philosophical Paradigm	Pragmatism		
Research Methodology	Mixed Methods Research		
Research Methods	Qualitative		Quantitative
Research Approaches	Inductive	Deductive	Inductive
Data collection	Focus group Discussions	Questionnaire Survey	Semi-Structured Interviews
Sampling Techniques (Non-Probability Sampling Techniques)	Purposive	Convenience	Purposive
Data analysis	Thematic Analysis	Hypothesis Testing (Univariate, Bivariate and Multi-variate Analysis)	Thematic Analysis

3.18 SUMMARY OF CHAPTER

The study adopted the pragmatic philosophy and it discusses the corresponding ontology, epistemology, axiology and mixed methodological design as they apply to this research. The use of questionnaire survey and non-probability sampling technique that involves the application of both convenience and purposive sampling techniques were discussed. It discusses the appropriate scales for ISPs' service performance, customer satisfaction and customer loyalty (behavioural intention) within ISP Sector that were adapted from existing studies. These scales were operationalised and used to develop questionnaires that are applied to data collections. The chapter also shows how the sample size of 1,504 respondents was determined. It justified the rationale for all the methods used and, as well, shows how the research ethical principles were observed and shows that the qualitative analysis from semi-structured interviews were carried out using the thematic analysis while the quantitative analysis was done at three levels of analysis: univariate, bivariate and multivariate data analysis.

CHAPTER FOUR

4.0 EXPLORATORY STUDY

4.1 INTRODUCTION

This chapter presents an exploratory study conducted through identified stakeholders of Internet services in FCT, Abuja, Nigeria. It was conducted through focus group discussions whose participants were selected through purposive sampling. The development of the focus group questions was based on the themes identified from literature reviews that deal with ISPs' service performance or service quality within the context of Internet service delivery and customer satisfaction. The exploratory study provides key issues of concern that correspond with literature review and guided for further extensive research.

4.2 FOCUS GROUPS OF THE EXPLORATORY STUDY

The study employed a qualitative approach through focus group discussions conducted in FCT, Abuja, Nigeria among following focus groups which were carried out at different occasions. They are:

- (i) Domestic/Individual Internet Service Subscribers with 22 participants, carried out on two separate occasions. In the first discussion there were 12 participants while in the second discussion there were 10 participants.
- (ii) Institution/Business Internet Service Subscribers with eight participants, two participants each from the four different Institutions/Businesses.
- (iii) ISPs/Telecoms Operators with eight participants, two participants each from the four different ISPs.
- (iv) Two Policy/Regulatory Agencies with 12 participants, six participants each from the two agencies.

Ethical approval was obtained to conduct the focus group study. Participants' consents were sought as participation was voluntary (see Appendices I, II, & III). See also Appendix

III for the questions used for discussions in the focus group study. These questions were adapted and extended appropriately to reflect context, perspective and understanding of the different participant groups of the focus group study. The recorded audio discussions were transcribed and the data analysed through thematic analysis.

4.2.1 DOMESTIC (INDIVIDUAL) INTERNET SERVICE SUBSCRIBERS

4.2.1.1 DOMESTIC INTERNET SUBSCRIBER PARTICIPANT PROFILES

The profiles of all participants in the focus group discussions for Domestic/Individual Internet Service Subscribers are displayed in Appendix IV Table 1. This is coded to ensure confidentiality as stated in the research's ethical requirement.

4.2.1.2 REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG DOMESTIC INTERNET SUBSCRIBERS

The Focus Group Discussions for the Domestic Internet Subscribers were carried out among 22 participants (10 males, 12 females) in two separate discussion groups.

Questions Q1a – Q1f.

In terms of being conversant with Internet services (Q1a), all participants in both groups reported that they are very conversant with the Internet and also with the services available through the Internet. They commented similarly like this *“I am very conversant with the Internet and available services via the internet. I want to believe that every one of us in this group discussion are also conversant with the Internet and services through it” (Participant DIS3)*. They stated that reasons for usage of the Internet (Q1 b) vary because it is used to perform various official and individual functions that include email, accounting services, online financial transactions, report submissions, academic activities, social media activities and general information search. For instance, **Participant DIS2** also stated in line with other members of the group that *“In the case of what I use the Internet for, I want to say categorically that I use the Internet for various official and individual functions such as email, accounting services, online financial*

transactions, report submissions, academic activities, social media activities and even general information search”.

With respect to duration of Internet usage [Q1 c), d)], all the participants stated they use the Internet frequently at an average of 12 hours a day. Almost all the participants reported that they use the Internet mostly at night between 7pm and 11pm for personal purposes because this is the time they were mostly at home and free from work. This is apart from using the Internet for official purposes at their workplace during working hours.

Participants DIS1, DIS4, DIS6, DIS7, DIS10, DIS13, DIS16, DIS17 and DIS18 commented similarly to this; *“I use the Internet for up to 16 hours a day, the only time I don’t use it is when I am sleeping. My job depends on the availability of the Internet and the job has no specified time because it continues beyond the office, so I would say I am an Internet addict. It helps to improve service delivery” (Participant DIS1).* They all reported that since their jobs depend mostly on Internet service, it helps them to improve service delivery in various endeavours.

The laptop and mobile phone were reported by all the participants in the groups as the most used devices for accessing the Internet [Q1 e), f)] while slightly less than half of the participants, that is **Participants DIS4, DIS5, DIS8, DIS9, DIS11, DIS13, DIS15, DIS19 and DIS22**, reported that they also use desktop computers and stated thus *“Apart from the mobile phone and laptop, I also used the desktop computer especially in my place of work to access the Internet services” (Participant DIS8).* Eventually, all the participants agreed that customers used mobile phones, laptop and desktop computers to access Internet services generally. See the Appendix IV Table 2 for the Coding Frame and Figure 1 for Thematic Map.

Questions Q2, Q3 and Q4a, b & c.

The use of the desktop was limited [Q2; Q3] due to the influence of electricity which was reported to be erratic by all the participants as power supply was identified as one of the

limitations or moderators to accessing the Internet services, and most of them stated the issue of poor network quality, where they live. It was stated thus: *“most time I am limited to using the desktop computer to access the Internet because of the incessant power failure where I live. I also experience poor network quality”* (**Participant DIS11**). The location where they live was mentioned; [Q2; Q3] as it was stated by most of the participants that the location of the subscriber determines the extent of Internet service access as some areas have poor network quality as they experience poor Internet coverage and frequent Internet disconnection. They also mentioned that upload and mainly downloading of files most times in some areas could be slow because of the slow Internet connection speeds that are being experienced. **Participants DIS3, DIS4, DIS5, DIS8 DIS11, DIS12 DIS15, DIS16 DIS19 and DIS22** made comments that are similar as one of them said thus, *“where I live I have poor network quality as I experience poor Internet coverage and frequent Internet disconnection”* (**Participant DIS4**). Also, **Participants DIS6, DIS7, DIS11, DIS12, DIS15, DIS16, DIS19, DIS20** made a similar statement, as one of them said *“most times the upload and particularly the downloading of files could be slow due to slow Internet connection speed that we experience in our area”* (**Participant DIS6**).

It was also mentioned that weather could obstruct Internet access; in fact, a participant stated that *“the service is also affected by weather, I have noticed that a slight change in weather especially when it is about to rain affects the quality of service, thereby, one has to wait till the weather is very clear before the service comes back to normal and if any important activity is to be carried out during this period of weather change, it will become impossible for it to be done”* (**Participant DIS9**). The following **Participants DIS3, DIS5, DIS8 DIS15 DIS19 and DIS22**, also gave similar opinions that, for example, *“During bad weather such as when there is heavy rain or stormy weather, I used to experience Internet service failure”* (**Participant DIS5**)

Discussing the impact of customer expectations and perceptions of Internet service quality delivery on Internet service uptake (4 a, b, & c), it was revealed that expectation of customers on quality of service delivery was high across all service quality determinants but almost all of the participants reported that their expectations have not been met by the ISPs and are not satisfied with the services provided by their ISPs. Still on the quality of service, and along with others in the discussion groups, **Participant DIS20**, corroborated by **Participant DIS15**, stated that *“The recent University Matriculation Examination via the Internet was not successful due to poor network quality which varies from one location to the other. It was discovered that most of the candidates got below the required marks for entry as compared to the previous examinations held, while some centre examinations were cancelled due to poor Internet services and there were service failures, delay on the network or Internet service connection very slow and hanging, leading to poor outcomes of the whole examinations”*.

These above discussions with regard to issues of network performance or network quality, indicate that customers are not satisfied with network performance/network quality. In other words, ISPs’ service performance is not satisfactory/good to the customers.

The participants unanimously agreed that there has been no value for money in the services that they pay for as one of them stated that *“I do not think I have value for money on the Internet services I obtain from my ISPs because I am not satisfied with their services. The more reason I operate with more than one ISPs” (Participant DIS6)*. They stated that the low level of perceived quality has prompted a high level of distrust in the ISPs’ service performance by customers as almost all the participants stated that they possess more than one means of accessing the Internet. This was said to act as a backup in time of service failure from one ISP or if the ISP could not provide adequate service at

a particular time. See the Appendix IV Table 3 for the Coding Frame and Figure 2 for Thematic Map.

Discussing questions (Q4d & e), all the participants agreed that though they experience no satisfaction in services received, this has not made them stop using the Internet services because it is necessary to get jobs done. One of the participants stated that *“I experienced no satisfaction in the services I received from the ISPs and I feel for most of us, we used the services because it is the only means of getting job done, obtaining information and communication with peers and loved ones, and also staying updated with events and happenings in the society” (Participant DIS17)*. But it was stated by most of the participants that this had an impact on customer loyalty or patronage of ISPs (no customer loyalty), as customers now search for an ISP that would at least provide the service that seems close to their expectation. They agreed to this statement: *“What I do is that when I notice that there is constant drop in quality of a particular ISP that I am subscribed to, at some point in time, I will stop patronising such ISP and look for better one that will at least provide an improved service” (Participant DIS12)*.

However, they felt that if the monitoring and regulatory agencies were functional and efficient, complaints of consumers would have been heard and acted upon. But for now, they have no choice but to accept what is available even though the services neither meet the required standard nor provide value for money (i.e., ISPs' service performance not satisfactory/good).

On complaints and response that they get from ISPs, most of the participants agreed that they used to have contact with customer centres but that the customer services are not satisfactory. Two of the participants stated thus *“although the responses may not be too immediate, we usually get feedback from customer care service centre” (Participant DIS8)*. *“The recent automation of customer services makes it difficult for complaints to be reported as people end up being discouraged because of the almost impossible task of*

getting through to the customer care services” (Participant DIS9). See the Appendix IV Table 4 for the Coding Frame and Figure 3 for Thematic Map.

Discussing question (Q5), all participants agreed that the reasons for the low service quality delivery were reported to range from inadequate infrastructural backbone provided by government, inadequate monitoring and lack of regulatory activities on the services being delivered to the customers. For instance, one of the participants said *“if the government can provide adequate Internet connectivity backbone infrastructure, Internet bandwidth and appropriate regulatory activities, it would enhance service performance of the ISPs” (Participant DIS19)*. So, all the participants agreed with this statement that to enhance Internet service quality delivery, it will need to include adequate government policy, provision of adequate infrastructure, including adjacent infrastructure such as stable power supply (**Participants DIS4, DIS5, DIS7, and DIS10**). Some of the **Participants DIS7, DIS9, DIS10 and DIS11** made similar comments that the complaints of inadequate power and poor infrastructure by the service providers have already been factored into the high cost of services paid by customers, so such complaints and such excuses should not be made and that *if government is strict with regulation and guidelines are made to provide direction and also there are sufficient backbone infrastructure and bandwidth facility, then there would be an increase in service quality delivery or performance of ISPs’ service (Participants DIS11)*. Finally, it was agreed by the participants that adequate Internet connectivity backbone infrastructure, Internet bandwidth, appropriate policy and regulation would influence ISPs’ service performance. See Appendix IV Table 5 for the Coding Frame and Figure 4 for Thematic Map.

4.2.2 INSTITUTION/BUSINESS INTERNET SERVICE SUBSCRIBERS

4.2.2.1 INSTITUTION/BUSINESS SUBSCRIBER PARTICIPANTS’ PROFILE

The profile of all participants in the focus group discussions for institution/business Internet service subscribers are displayed in Appendix IV Table 6.

4.2.2.2 REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG INSTITUTION/BUSINESS INTERNET SERVICE SUBSCRIBERS

The Focus Group Discussion amongst the identified institutional subscribers involved discussions with 8 members (2 per institution) selected from the identified institutions.

Questions Q1a, b, c, d, e, f.

Participants across all the four identified institutional subscribers reported that their organisations were conversant with Internet services [Q1 a)] as they said “*our organisations are conversant with the use of Internet service*”. Pertaining to the use of Internet [Q1 b)], they all mentioned that their organisations made use of the Internet for various organisational activities. Most of the participants stated that they use the Internet services in their organisations for e-mail services (***Participants IIS2-P1, IIS2-P2, IIS3-P1, IIS3-P2, IIS4-P1 and IIS4-P2***).

Participants IIS2-P1 IIS2-P2, IIS4-P1 and IIS4-P2 said that their organisations use it for e-commerce such as online banking, general information search, bookings and reservations, e-trainings, file transfers and other activities that their organisations were involved in. They unanimously agreed that the Internet service serves as the hub for the functionalities of the institutions. Specifically, almost all participants stated that they use the Internet for job related activities (***Participants IIS1-P1, IIS1-P2, IIS2-P1 IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2***). Also, almost all participants stated that they use the Internet services for social media (***Participants IIS1-P1, IIS2-P1 IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2***) while **Participants IIS1-P1, IIS1-P2, IIS3-P1, IIS3-P2, IIS4-P1** said they use Internet for literature searches and academic purposes. **Participants IIS2-P1, IIS2-P2, IIS4-P1 and IIS4-P2** said they use the Internet for banking activities while **Participants IIS3-P1, IIS3-P2, IIS4-P1** stated using the Internet for leisure, sports and entertainment including reading of newspapers and download of materials and movies. **Participants**

IIS1-P1, IIS1-P2, IIS3-P1, IIS3-P2 stated using the Internet for online academic purposes, Internet phoning and others.

Thus, the above discussions in respect of the use of Internet by Institutions and business organisations, show that the Internet services are used also for various institution/business purposes.

Internet was stated by all the participants to be the medium through which their job is done more effectively and efficiently. This is used frequently and it helps to improve their institutional and business service delivery. Although **Participants IIS3-P1 and IIS3-P2** stated that their work can be carried out manually but the output in terms of time of completion and accuracy is incomparable if the job were done with the Internet. Furthermore, all the institution/business Internet subscribers said that their jobs basically had to deal with service provision through the Internet and this has made using the Internet inevitable for them. All the participants stated that they use the Internet on a daily basis [Q1 c)] on job related activities including correspondence, emailing, ticketing, research, and information dissemination.

With regard to duration of time spent on the Internet [Q1 d)], most of the participants agreed they used the Internet services 24 hours every day because attending to customers lasts 24 hours and most times, they create access to customers and these customers sometimes require to be served at different times of the day as discussed by **Participants IIS2-P1 IIS2-P2, IIS4-P1 and IIS4-P2.**

The unanimous factor expressed by the participants was that in their organisations, though personnel may change at different times of the day, Internet service usage runs through all days including weekends. Specifically, **Participants IIS2-P1, IIS2-P2** stated that as customers access the bank's services at every hour of the day through various platforms [Q1 e)], it is necessary that it remains up and functional at every hour, while **Participants IIS4-P1 and IIS4-P2**, who work with a ticketing agency, stated that they do

bookings and reservations for customers travelling to other countries, trying to make flight connections which involve different time zones and to achieve this, they cannot afford to be off the Internet. **Participants IIS4-P1 and IIS4-P2** further stated that in order to avoid failure or interruption during transactions, they are subscribed to more than one Internet Service Provider (ISP) so that when the Internet service from one ISP fails, they can immediately switch to another ISP [Q1 f)]. Other participants involved in the discussion agreed to this too. This indicates that network performance/network quality is not satisfactory/good and there is no customers' loyalty as Internet service subscribers switch from one ISP to another.

Almost all the participants stated that they access the Internet [Q1 e)] through their laptops at the office and phones when at home except if the need to work is urgent at home, that is when laptops are used. The usage of phones was reported to be for times when they are in transit or using the Internet for other purposes such as social media, chats etc. (**Participants IIS1-P1, IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2**). It was observed from the discussion that usage of desktop is limited in the institutions as only **Participants IIS2-P1 and IIS2-P2** from the banking sector and **Participant IIS3-P2** from the security agency stated that they make use of their desktops in the office. The reason for low usage of desktops was power outage which is incessant especially when using public electricity; they asserted that it affects flow of work and also because it is impossible for them to take their desktops home and work from home, but that this solution is available with the laptops (**Participants IIS1-P1, IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2**). However, it was agreed that the general devices to access the Internet are through the use of mobile phones, laptops and desktop computers and also stated that inadequate power supply infrastructure limits service delivery and Internet uptake. See the Appendix IV Table 5 for the Coding Frame and Figures 5a, 5b and 5c for Thematic Maps.

Questions Q2, 3, 4 & 5

Participants IIS2-P2, IIS2-P2, IIS4-P1 and IIS4-P2 agree that the level of Internet connectivity, including the speed and accessibility, is of good quality [Q2] indicating that network performance/network quality is good (i.e., ISPs' service performance is satisfactory). This was reported to be because they have a definite Service Level Agreement (SLA) with their Internet Service Providers (ISPs), and though they said that there are service failures at intervals, these failures are not incessant compared to failures experienced using Internet modems or mobile devices by individual/domestic subscribers. **But Participants IIS1-P1, IIS1-P2, IIS3-P1 and IIS3-P2** disagreed totally that the internet service is of good quality (i.e., ISPs' service performance is not satisfactory).

All the participants agreed that the cost of Internet services in Nigeria is expensive [Q4]; they stated that though ISPs claim to have factored the running cost into the cost of Internet services, the customers do not regularly get value for their money as ISPs' service performance is not satisfactory to them. They concluded that irrespective of the perceptions that are conceived toward Internet service delivery in the country or even though the ISPs fail to meet the expectations of their customers, there is and there would still be the need to use Internet services because most operations, services and activities of everyday life are presently being factored into Internet usage and the subscribers are compelled to use the services. The only thing that will happen is that customers will keep on changing from one ISP to another for better services as there will be no customer loyalty to ISPs, since ISPs' service performance is not satisfactory to the customers.

Finally, all the participants stated that the identified obstructions [Q3; Q5] to Internet service delivery in their institutions include power supply as the major problem, lack of infrastructural backbone and also, the inefficient regulatory activities by the regulatory agencies in the country. They stated that government should endeavour to work on them

for improved services. See the Appendix IV Table 6 for the Coding Frame and Figure 6 for Thematic Map.

4.2.3 INTERNET SERVICE PROVIDERS (ISPs)

The profiles of all participants in the focus group discussions for ISPs are Appendix IV Table 9.

4.2.3.1 REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG ISPs

The Focus Group Discussion for the ISPs involves discussions with members of four identified ISPs in the FCT, Abuja, Nigeria.

According to the discussions by the ISPs' participants, they stated that the pattern of uptake of Internet services [Q1] is changing in the FCT, Abuja and the country as a whole.

Participants ISP1–P1 and ISP1–P2 in particular stated that there is an increase in demand for Internet bandwidth from their customers and the increase in bandwidth comes at an increased cost. That is, increase in Internet bandwidth influences cost. **Participant ISP1–P1** stated that: *“The challenge in Nigeria is matching expectation with finance but the more the quality the more one pays because quality is a function of cost”*, which indicates that increase in quality influences cost.

It was reported that competition and influx of new ISPs into the market has led to an increase in service quality delivery and ISPs' service performance has improved [Q2].

The ISPs reported that they have to meet the top market requirement if they still want to be in the market and keep the patronage of existing and new customers as ISPs' service performance is influenced by competition which consequently affects patronage.

All the participants from the ISPs agreed that obstruction to Internet services [Q3] has been observed to be as a result of inadequate coverage, Internet bandwidth issues and limited network connectivity due to the location where customers reside. Internet network

coverage was reported to be more in the urban areas than in rural communities and this was said to be the problem of backbone infrastructure and Internet bandwidth issues, at which **Participant ISP1–P1** said they are on the verge of running fibre cables across the country to improve network connectivity and coverage (i.e., network performance/network quality). This was corroborated by **Participant ISP1–P2** as it is observed that ISPs' service performance is not satisfactory and is also influenced by inadequate coverage/network connectivity, Internet bandwidth issues and backbone infrastructure such as fibre optics.

For access connectivity related problems [Q2; Q3], all the participants from the ISPs stated that lack of adequate bandwidth has been identified to be the cause of these and in cases where they have better bandwidth, service is always good. Nonetheless, there are frequent downtimes which arise as a result of various factors such as not using the required Internet bandwidth for the service needed (**Participants ISP1–P1 and ISP1–P2**). **Participants ISP1–P1 and ISP1–P2** also stated that most institutional subscribers overcrowd their network, which seems to be a major problem because most institutions pay for less bandwidth such as 512Kbs, which would eventually be used by almost 500 people. This will exceed the bandwidth capacity and end up being less efficient than desired (**Participants ISP1–P1 and ISP1–P2**). The ISPs, particularly **Participants ISP1–P1 and ISP1–P2**, mentioned that when many complaints were made, they provided high Internet bandwidth to institutions free of charge for a considerable period of time in order to make institutions realise that if they had acquired the required bandwidth capacity to meet their needs, they would have got better service quality delivery. On the other hand, it was also to spur the interest of the institutions to purchase or pay for more bandwidth capacity that would meet their needs. This was reflected as follows:

“Sometimes realising the complaints and problems encountered, we provide 2 weeks’ higher quality services (i.e., higher bandwidth capacity without extra cost) than what the

customers paid for. More than 95 percent acknowledge to be excellent and are needed by their organisations but when the cost implication is mentioned to them, only about 3 percent end up purchasing and using these enhanced and efficient services” **(Participants ISP1–P1 and ISP1–P2).**

The above discussions in respect of bandwidth capacity issues show that network performance/network quality is not satisfactory to the customers as they do not obtain the required bandwidth capacity for better quality of service. Thus, this indicates that ISPs’ service performance is influenced by bandwidth capacity.

Lack of backbone infrastructure and maintenance costs were other factors stated by the ISPs [Q2; Q3]. **Participants ISP2–P1, ISP2–P2, ISP3–P1 and ISP3–P2** posited that the cost of providing backbone infrastructure is high and the costs of maintenance and servicing of equipment are very expensive too. The destruction of equipment by vandals also contributed to the reduced quality of service **(Participants ISP4–P1 and ISP4–P2)** thus affecting network performance/network quality. This indicates that ISP’s service performance is affected or influenced by the high cost of backbone infrastructure, maintenance and destruction of equipment. Likewise, the absence of framework, that is ICT Policy, has influence on ISPs’ service performance. Lack of policy was another identified obstruction as this was said to make adequate monitoring and regulation impossible. This limits Internet service performance **(Participants ISP2–P1, ISP2–P2, ISP3–P1 and ISP3–P2)**. But this position was negated by **Participants ISP4–P1 and ISP4–P2** who claimed that there are adequate ICT frameworks and policies in existence, but that the major problem has been implementation by the policy and regulatory agencies, which was stated to be as a result of the overlapping of functions by the policy and regulatory agencies.

On prompt identification of problems by ISPs, **Participants ISP1–P1 and ISP1–P2** reported that problems are always identified and rectified in about 5 minutes especially

when it is fibre optic because they have an advanced monitoring and fault detection system, and although they reported that the service would be slower, it would automatically switch from fibre to VSAT. When other minor faults are reported to the contact centre, the participants stated that customers' service technical support is good as response is immediate and resolution is provided in a maximum of 4 hours for people in Abuja. However, it was stated that one of the problems of the contact centre is that it is external and outsourced and it was stated to be a challenge as **Participant ISP1–P2** explained that: *“Before now, we depend on the report of customers’ problems as provided by those we outsourced to handle customer care service as we do not have direct link with the customers. But now we do it in-house as we have service managers who go see the customers and personally interview them on their perceptions of the service. There are the technical team that look into the perceptions of the customers as reported by the service managers. We also have the business team that interfaces with our top management in making wise business decisions based on feedback received from customers and the management team that manages the affairs of the organisation”*. In-house customer care service, which is presently being done, allows it to have technical and business teams that would provide for good services.

In their opinion of whether gaps currently exist between customers' perception and expectations and what is being delivered to customers [Q4], **Participants ISP1–P1, ISP2–P1, ISP3-P2, ISP4-P1** agreed that there exist gaps but that these gaps have been closed to a considerable extent compared to how things were 3-5 years ago.

Discussing the issue of policy and guidelines [Q5] that will enhance service quality delivery, the participants of ISPs highlighted, amongst others, items that include government investment on Internet backbone infrastructure, the need to streamline the infrastructure so that other providers become sole investors under government. Government should pass a policy or ICT law that guides private investments so that

investors will know that even when there is a change of government or regime, investment in ICT in Nigeria would not be lost. When there is a National Policy and not the government of the day policy it encourages the investor to make a greater commitment to the business. It was further reported that government should centralise the ICT infrastructure in Nigeria, which was the reason why an organisation known as Galaxy was formed, but there was no policy framework on the ground for adequate implementation.

All participants of ISPs in the discussion posited that improving quality of services will always attract costs that would invariably be redirected to subscribers for payment. However, they agreed that improving Internet service quality drives adoption and Internet service growth because if the customers believe that the service quality is good, they inform other people, which leads to further adoption and increases growth.

See the Appendix IV Table 7 for the Coding Frame and Figure 7a, 7b, 7c & 7d for Thematic Maps.

4.2.4 POLICY AND REGULATORY AGENCIES

The profiles of all participants in the focus group discussions for Policy and Regulatory Agencies are displayed in Appendix IV Table 11.

4.2.4.1 REPORT OF ANALYSIS FROM FOCUS GROUP DISCUSSIONS CONDUCTED AMONG POLICY AND REGULATORY AGENCIES

Participants PA1, PA2, PA3, PA4 PA5 and PA6 from the policy agency [Q5] corroborated this statement that *“there is no specific policy applicable to Internet as a whole in Nigeria but there exists an IT policy that covers the usage of IT services in the country which has Internet service usage included” (Participant PA1)*. **Participant RA1**, corroborated by **Participants RA2, RA3, RA4, RA5 and RA6** (all from regulatory agency), stated that they have guidelines that service providers follow and that there are also Key Performance Indicators (KPIs) for voice, data or Internet services. They said

they usually send to the ISPs the report of their performances monthly. The participants from the regulatory agency commented that Internet services can be looked at as a service and as an infrastructure because the service rendered is based on the available infrastructure (**Participant RA3**). There may not have been a policy related directly to Internet service but policy and regulatory agencies are trying to create an environment for the service providers to serve the customers better and to enhance further penetration of Internet as well as facilitate the use of Internet among the populace (**Participant RA4**). Furthermore, **Participant RA6** stated that when services are available and adequate, then the people becoming aware of the benefits of the Internet would facilitate patronage for the service providers. This was also agreed by **Participants RA2, RA4 and RA5**. They affirmed that the improvement in service quality delivery has assisted in the growth of Internet uptake because service is better now compared to what it used to be and gives rise to more patronage than before.

On whether there has been a remarkable increase in Internet growth [Q1], a discussant from the policy agency, **Participant PA2** stated thus:

“The drive to increase on Internet growth is as a result of people who are adapting to usage of the Internet and its services, as attention is now drawn on the trending services and applications such as internet banking, social media, online registrations and payments etc. The people are now shifting to conform to these trends and this has increased awareness and uptake. Particularly, the remarkable increase in social media has increased Internet growth even in rural areas which has increased Internet acceptability and growth”.

On perceived quality of Internet services [Q4], the participants from regulatory agreed with the statement by **Participant RA2** that stated thus: *“We understand and are aware that the quality of services provided differ by price and that we measure satisfaction based on Service Level Agreement between service providers and customers. But being as it*

is, we feel that services provided by the ISPs are fairly commensurate with the prices paid by customers although we are aware of various downtimes by the ISPs”.

A particular discussant from the regulatory agency stated thus:

“I think that service satisfaction is relative to the operator a customer is connected to, because some operators perform better than others but services provided are still expensive generally and cannot really perform the required tasks” (Participant RA1).

Another’s view was:

“Following the reports received from customers, I think customers do not get quality for money and also because some factors such as location and the particular ISP subscribed to, play a big role in the level of quality service received” (Participant RA5).

The policy and regulatory agencies unanimously agreed that there is a large gap between expectation and perception [Q4] because the infrastructure to provide quality services are not in place and the investment climate in the country is very poor, while a discussant from the regulatory agency specifically stated that one of the reasons for the present poor service quality is that:

“The outburst in telecom industry was overwhelming and we weren’t ready for it and the growth was sudden so there was no enabling environment but I think we are trying to put things in place though it would take some time but we would get there” (Participant RA2).

Some of the mentioned obstructions to quality Internet service delivery [Q3], as stated by **Participants RA2, RA3, RA4 and RA6**, included lack of adequate infrastructure and mentioned that if this were in place, cost of providing services would reduce, and more people would have access to Internet and network quality would also improve. The lack of infrastructure directly affects the pricing which indirectly affects network quality. Security was also said to affect quality because sometimes the infrastructure is vandalised in communities (**Participants RA5 and RA6**). Power was also itemised as another major factor, while multiple taxations and regulations were said to be another big

challenge which limits entry and penetration of the Internet to the rural communities and remote areas (**Participants RA2, RA3 and RA4**). A particular discussant from regulatory agency posited that poor planning on the part of the government should also be considered because sometimes roads are built across fibre cables and, in most of such cases, the cables are damaged and most times affect network quality (**Participant RA2**). On proffering solutions to the problems of Internet service quality delivery in Nigeria [Q2; Q5], some of the discussants from the regulatory agency **Participants RA2, RA3, RA4 and RA5** were of the opinion that there should be indigenisation of the ISPs so that indigenous companies are given licences to operate. The government should provide an enabling environment which the ISPs currently do not have. There should be a unified regulatory agency which should help to direct all the ISPs towards achieving a particular goal which is quality Internet service delivery. In achieving this goal, it was stated that this should not be left for the ISPs only to achieve as they may be more interested in making huge profits than providing better quality services. So, the regulatory agency should take the lead in ensuring that the ISPs work toward achieving this goal by making them comply with the sharing of resources and infrastructure strategy that would enhance coverage across the country. Finally, it was stated that the indigenisation of the ISPs would lead to acceptability and ownership of resources which might also assist in stopping vandalism of equipment as the people would see that destroying such infrastructure would also have an adverse effect on them. See Appendix IV Table 8 for the Coding Frame and Figures 8a, 8b & 8c for Thematic Maps.

4.3 FINDINGS FROM FOCUS GROUP STUDY

The findings as extracted from the coding frame and thematic maps (see Appendix IV) are as follows:

- (i) Customers are conversant with Internet services.

- (ii) They use Internet for individual/domestic and institution/business purposes as it is used to improve service delivery.
- (iii) Customers used mobile phones, laptop and desktop computers to access Internet services but the use of desktops was limited to due unstable power supply. But participants from the ISPs stated in their discussions that the pattern of Internet uptake is changing or not stable.
- (iv) ISPs' service performance is not satisfactory/good but likely satisfactory when there is Service Level Agreement (SLA) with the ISPs.
- (v) Inadequate power supply infrastructure limits service delivery and Internet uptake.
- (vi) ISPs' service performance is influenced by adequate Internet connectivity backbone infrastructure, Internet bandwidth, appropriate policy and regulation.
- (vii) ISPs' service performance is influenced by competition which affects patronage.
- (viii) ISPs' service performance is influenced by high cost of backbone infrastructure, maintenance and destruction of equipment.
- (ix) Increase in bandwidth capacity and quality of service influence cost.
- (x) ISPs' service performance is influenced by lack of policy although some stated that there are adequate policies but no implementation.
- (xi) Customer care service and technical support is good but ISPs still need to enhance their services.
- (xii) Gaps exist between customer perceptions and expectations but it is closed to a considerable extent.
- (xiii) Government to improve or invest in power supply and infrastructural backbone along with others as sole investors and as well as enhancement of regulatory activities.
- (xiv) Government to provide central ICT infrastructure and policy that protects and encourages private investments.

- (xv) Improved ISPs' service performance attracts cost and drives adoption and growth.
- (xvi) There exists IT policy that includes Internet services and there are guidelines, and KPIs for monthly ISPs' service performance report.
- (xvii) Internet is seen as a service based on infrastructure.
- (xviii) Policy and regulatory agencies create an enabling environment to improve ISPs' service performance.
- (xix) Improved ISPs' service performance would facilitate patronage.
- (xx) Trending services and applications on the Internet influence Internet acceptability and growth.
- (xxi) Quality of services is influenced by prices that are fairly commensurate to what is paid by customers.
- (xxii) Customer satisfaction is relative to the ISP's service performance, which are expensive and do not meet expectation.
- (xxiii) Customers do not get value for money due to location and relative ISPs' service performance.
- (xxiv) Telecom growth is overwhelming and sudden, and no preparation for enabling environment for ISP operations.
- (xxv) Adequate infrastructure will reduce cost of services and more people will access good Internet network quality.
- (xxvi) Security affects quality of service as infrastructure is vandalised.
- (xxvii) Power, multiple taxations and regulations limit penetration of Internet.
- (xxviii) Poor government planning as roads built on fibre cable have damaged it and affect network quality.
- (xxix) Government to provide Indigenous ISP companies with licences to operate in an enabling environment.

(xxx) There should be a unified regulatory agency to direct ISPs service delivery for improved ISPs' service performance.

(xxxi) ISPs' indigenisation would allow acceptability and ownership of resources and assist in stopping vandalism of equipment.

This study helped to identify some features on Internet service delivery that customers would expect from the service performance of ISPs such as network quality and customer care services among others. It shows some issues that obstruct Internet service provision, and these include inadequate Internet backbone infrastructure, insufficient bandwidth capacity and high cost of Internet users' access among others. The Focus Group Study's findings allowed the researcher to posit the following propositions:

- (i) Quality of Internet service from ISPs which include network quality, service disconnection or failures, speed of uploading and downloading, and customer care services discussed in the Focus Group Study can be used as part of the parameters to test ISPs' service performance.
- (ii) Although customers experienced no satisfaction in ISPs' service performance, this has not made them stop using the Internet services. This had impact on customer loyalty (behavioural intention) or patronage of ISPs, as customers now search for ISPs that would at least provide the service that seems close to their expectation. This implies that there is likely to be correlation between customers' satisfaction and customer loyalty.
- (iii) Item (i) shows that satisfaction of customers is likely to be influenced by the quality of service provided by ISPs (ISPs' service performance). This implies that there is likely a correlation between ISPs' service performance and customer satisfaction.

- (iv) Issues that are perceived to obstruct Internet service provision such as Internet bandwidth and high cost of Internet users' access, among others, may be considered as moderators that can influence ISPs' service performance.

The purpose of the focus group study was to authenticate the literature review and to ascertain the need for extensive study. Thus, the findings from the focus group study correspond with the literature review. The issues of concern discussed in the focus group study include measuring ISP's service performance via network quality by looking at Internet speed connection, disconnection or failures, speed of uploading and downloading; customer care service and technical support; customer satisfaction; customer loyalty (behavioural intention), limitations or moderators such as cost and bandwidth capacity, amongst others.

Thus, the focus group study was able to bring out the above-mentioned issues, which are in line with the literature review. Hence, this led to extensive research by sampling a larger population through survey questionnaires in order to obtain quantitative data. The quantitative data helps to evaluate and explain the causal relationships between variables or measures by testing hypotheses so as to provide the extent to which the variables relate with each other, using statistics, formulas or techniques to arrive at the results. The quantitative findings are further validated or substantiated by interview findings to obtain authentic research outcome.

CHAPTER FIVE

5.0 DATA PRESENTATION, ANALYSIS AND FINDINGS

5.1 INTRODUCTION

This chapter presents the report of research findings from both the quantitative and qualitative analysis. The first section presents the findings from quantitative analysis of data from the questionnaire survey and data collected are displayed in bar charts in Appendix VII. The second section provides the outcome of the qualitative analysis obtained through semi-structured interviews.

5.2 QUANTITATIVE ANALYSIS AND FINDINGS (QUESTIONNAIRE SURVEY)

The questionnaire for quantitative approach, divided into six sections, was used for a survey to collect data. Section one of the questionnaire is on demographics, while sections two to six are on ISPs' service performance, customers' satisfaction, behavioural intention, Internet bandwidth and prices of Internet users' access respectively (see Appendix V).

In this section of the chapter, data was gathered through a questionnaire survey online from which 1,504 responses were obtained and utilised for this research. This analysis of the section is divided into reliability analysis of instruments, descriptive analysis of variables, correlation analysis of variables and regression analysis of variables.

5.2.1 RELIABILITY ANALYSIS OF VARIABLES

Reliability analysis is used to measure the validity and consistency of the instruments employed to answer this research questions. Simply put, *“reliability is the degree to which the instruments employed for this research consistently produce the matching valid result should it be applied in a similar circumstance on recurring instances”* (Phelan and Wren, 2005-06). Validity in this regard refers to the degree that the phenomenon is accurately measured (Phelan and Wren, 2005-06). The test of reliability helps to demonstrate the

degree to which the variables used in this research questionnaire are related, the degree of the variables' consistency and which variable should be deleted from the scale.

The internal consistency of the variables in this research is tested using the Cronbach's Alpha. The choice of Cronbach's Alpha is based on the independence and adequacy in sampling (Geldhof *et al.* 2014). The Cronbach's Alpha result is usually between 0 and 1, where the acceptable level of coefficient is 0.7 and above (DeVellis, 2012; Lobiondo-Wood and Haber, 2013). The reliability analysis for the set of questions for the quantitative approach is presented in Table 5.1.

Table 5.1: Reliability Analysis of Variables – Cronbach

Components	Component's Reliability Cronbach			Overall Reliability Cronbach		
	Standardized Items			Standardized Items		
	Average inter-item correlation	Number of items in the scale	Scale reliability coefficient	Average inter-item correlation	Number of items in the scale	Scale reliability coefficient
Overall				0.6269	31	0.9812
Internet Service Providers' (ISPs) Performance Quality	0.6111	12	0.9496			
Network Quality	0.6858	3	0.8675			
Customer Service and Technical Support	0.6883	3	0.8689			
Information Quality	0.8015	3	0.9238			
Security and Privacy	0.8281	3	0.9353			
Customer Satisfaction	0.7443	4	0.9209			
Assessment of Behavioural Intention	0.7650	6	0.9513			
Internet Bandwidth	0.8084	5	0.9547			
Prices of Internet Users' Access	0.7792	4	0.9338			

Table 5.1 shows the reliability analysis using Cronbach's alpha test. The scale reliability coefficient measures the internal consistency of the variables using the Cronbach's alpha test while the average inter-item correlation measures the extent of relationship between the items. The internal consistency of the sub-construct ranges from 0.8675 to 0.9547. The internal consistency for each component was high (>0.7) which is acceptable. These high internal item consistency values imply that each of the components has a unique contribution to fit the conceptual framework and this suggests a tendency to multi-dimensionality. In addition, the inter-item correlation indicates relatively high values from 0.6111 to 0.8281. This implies that each item has good correlation with other items indicating not too high values or redundancy. The overall internal consistency of the instrument was 0.9812 indicating that it is acceptable and statistically the variables can explain the conceptual framework. Thus, the combinations of Cronbach's alpha coefficient value and mean inter-item correlation were both acceptable. The reliability coefficient value of 0.9496 for ISPs' service performance is > 0.7 , acceptable criteria that indicate the acceptable internal consistency. The table also shows the ISPs' service performance dimensions with reliability coefficient values that include Network Quality (0.8675); Customer Service and Technical Support (0.8689); Information Quality (0.9238); Security and Privacy (0.9353). These reliability coefficient values are within the > 0.7 acceptable criteria.

The table further presents the reliability coefficient values for the assessment of Customer Satisfaction as 0.9209; Behavioural Intention (0.9513); Internet Bandwidth as a moderator (0.9547); Prices of Internet Users' Access as a moderator (0.9338), all of which are within the > 0.7 acceptable criteria. Similarly, the inclusion of all the variables in reliability tests indicates that the overall Cronbach alpha value or reliability coefficient (0.9812) is greater than 0.7 acceptable criteria, which is almost close to one.

Factor analysis

To identify the causal factor and examine the variables of this study for the running of a regression analysis, factor analysis was applied to investigate the interrelationships between the variables assessed which were removed from a range of correlated variables. This research employs the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity to examine this study's conceptual framework. The application of the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity to this study helped in the measurement of the adequacy of the sample, so as to verify whether the sample chosen is appropriate and adequate enough for the research to proceed with the analysis or not. Any Kaiser-Meyer-Olkin (KMO) value that is between the ranges of 0.5 to 0.9 is acceptable and shows that factor analysis is appropriate; conversely, any value less than 0.5 shows that the sample is insufficient to carry out factor analysis.

Table 5.2: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.781
Bartlett's Test of Sphericity	Approx. Chi-Square	5550.959
	Df	3
	p value (Sig.)	0.000

Table 5.2 shows that the value of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy is $0.781 > 0.5$, which implies that the sample is sufficient. The value of Bartlett's Test of Sphericity is an indication that there is multivariate normality of the distribution. The criteria for acceptance states that any 'p' value less than 0.05 shows that the data do not generate identity matrix and the multivariate is normal and acceptable for factor analysis (Lai, 2018). The Bartlett's Test of Sphericity result for this study is p value (sig.) of 0.000 which indicates that $p < 0.05$. Therefore, the data is acceptable and factor analysis can be applied to the analysis.

5.2.2 UNIVARIATE ANALYSIS

5.2.2.1 DESCRIPTIVE ANALYSIS OF DEMOGRAPHIC VARIABLES

This section deals with the research participants' demographics (based on responses to questions A1, G2, EB3, P4 & IL5) and this presented in Table 5.3.

Table 5.3: Summary of Demographic

Scale Description	Frequency	Percent	Cumulative Percent
A1 - Age of respondents (A)			
16 years to 25 years	306	20.4	20.4
26 years to 35 years	412	27.4	47.8
36 years to 45 years	387	25.7	73.5
46 years to 55 years	231	15.4	88.9
56 years and above	168	11.1	100.0
G2- Gender of respondents (G)			
Male	750	49.1	49.1
Female	754	50.9	100.0
EB3 - Educational background of respondents (EB)			
A-Levels	199	13.2	13.2
HND	195	13.0	26.2
BSc	535	35.6	61.8
Master's degree	381	25.3	87.1
Doctorate degree	194	12.9	100.0
P4 - Profession of respondents (P)			
Student	231	15.4	15.4
Apprentice	193	12.8	28.2
Vocational worker	308	20.5	48.7
Public sector professional	472	31.4	80.1
Private sector professional	300	19.9	100.0
IL5 – Income Level of respondents (IL)			
Less than N29,000	217	14.4	14.4
N30,000 – 59,000	173	11.5	25.9
N60,000 – N89,000	230	15.3	41.2
N90,000 – N119,000	247	16.4	57.6
N120,000 – N149,000	221	14.7	72.3
N150,000 – N179,000	149	9.9	82.2
N180,000 – N209,000	96	6.4	88.6
N210,000 – N239,000	65	4.3	92.9
N240,000 and above	106	7.1	100.0

Table 5.3 presents the respondents' age profile and shows that the bulk of Internet users in Abuja (88.9% participants) are of the age between 16 and 55 years.

The gender of the respondents is also presented in the table above. This indicates that there is not much significant difference between the male and female respondents. This shows that both male and female are now interested and conversant in the use of Internet services as this has become necessary in our daily activities.

The table above was used to present the respondents' education status. This showcases the wider coverage of the data for the research in terms of respondents with different levels of educational status given opportunities to express their views. It also helped in pointing out a further need to look into any significant effect that educational background might have on the perceptions, expectations of quality and Internet uptake in FCT Abuja. Professions of the respondents were presented in the table above. It indicates that most of the respondents (51.40%) were in the public and private sector, which implies heavy usage of Internet services among the professionals in FCT Abuja.

The income level of the respondents was also presented in the table above. This indicates that most of Internet users in FCT, Abuja (82.2%) respondents are of income level that is less than N180,000 per month.

5.2.2.2 DESCRIPTIVE ANALYSIS OF ISPS' SERVICE PERFORMANCE

This section deals with the opinions of the study participants on the service performance of ISPs in FCT Abuja, Nigeria. Relevant questions (NQ6 – NQ8; CS&TS9 – CS&TS 11; IQ12 – IQ14; IQ15 – IQ17) were asked, relating to the dimensions of ISPs' service performance which includes network quality; customer service and technical support; information quality; security and privacy. These are presented in Table 5.4.

Table 5.4: Summary of Descriptive Analysis of ISPS' Service Performance in FCT, Abuja, Nigeria

Scale Description	Frequency	Percent	Cumulative Percent
Network Quality (NQ)			
NQ6 - I do not experience Internet disconnection from my ISP.			
Strongly Disagree	422	28.1	28.1
Disagree	366	24.3	52.4
Neutral	257	17.1	69.5

Scale Description	Frequency	Percent	Cumulative Percent
Agree	281	18.7	88.2
Strongly Agree	178	11.8	100.0
NQ7 - The downloading and uploading Internet speed from my ISP meet my expectations.			
Strongly Disagree	354	23.5	23.5
Disagree	344	22.9	46.4
Neutral	232	15.4	61.8
Agree	373	24.8	86.6
Strongly Agree	201	13.4	100.0
NQ8 - Regardless of peak or off-peak hours, this does not affect my Internet speed from my ISP.			
Strongly Disagree	352	23.4	23.4
Disagree	310	20.6	44.0
Neutral	200	13.3	57.3
Agree	392	26.1	83.4
Strongly Agree	250	16.6	100.0
Customer Service and Technical Support (CS&TS)			
CS&TS9 - Customer service staff from my ISP are knowledgeable.			
Strongly Disagree	270	18.0	18.0
Disagree	153	10.2	28.2
Neutral	242	16.1	44.3
Agree	584	38.8	83.1
Strongly Agree	255	16.9	100.0
CS&TS10 - Customer service staff from my ISP are willing to respond to my enquiries.			
Strongly Disagree	252	16.8	16.8
Disagree	145	9.6	26.4
Neutral	205	13.6	40.0
Agree	573	38.1	78.1
Strongly Agree	329	21.9	100.0
CS&TS11 - There is prompt resolution of technical problems by my ISP.			
Strongly Disagree	265	17.6	17.6
Disagree	259	17.2	34.8
Neutral	259	17.2	52.0
Agree	452	30.1	82.1
Strongly Agree	269	17.9	100.0
Information Quality (IQ)			
IQ12 - My ISP provides sufficient information.			
Strongly Disagree	300	20.0	20.0
Disagree	149	9.9	29.9
Neutral	174	11.6	41.5
Agree	574	38.1	79.6
Strongly Agree	307	20.4	100.0
IQ13 - My ISP provides up-to-date information.			
Strongly Disagree	233	15.5	15.5
Disagree	177	11.8	27.3
Neutral	189	12.6	39.9
Agree	553	36.7	76.6

Strongly Agree	352	23.4	100.0
IQ14 - My ISP provides relevant information.			
Strongly Disagree	226	15.0	15.0
Disagree	149	9.9	24.9
Neutral	164	10.9	35.8
Agree	568	37.8	73.6
Strongly Agree	397	26.4	100.0
Security and Privacy (SP)			
SP15 - Personal information is protected by my ISP.			
Strongly Disagree	267	17.8	17.8
Disagree	136	9.0	26.8
Neutral	220	14.6	41.4
Agree	524	34.9	76.3
Strongly Agree	357	23.7	100.0
SP16 - Financial information is protected by my ISP.			
Strongly Disagree	231	15.4	15.4
Disagree	160	10.6	26.0
Neutral	217	14.4	40.4
Agree	452	30.1	70.5
Strongly Agree	444	29.5	100.0
SP17 - Transactions with my ISP are secured.			
Strongly Disagree	235	15.6	15.6
Disagree	137	9.1	24.7
Neutral	194	12.9	37.6
Agree	487	32.4	70.0
Strongly Agree	451	30.0	100.0

The Table 5.4 above presents the respondents' opinions on ISPs' service performance dimensions. Considering the network quality as interpreted by the table and explained above, it shows that most of the respondents (52.4%) indicate that they experience Internet disconnection. However, the 30.5% that do indicate that they do not experience Internet disconnection, shows that despite that most of the respondents (52.4%) are not pleased with service they received from their ISPs, a significant number (30.5%) are still satisfied with the Internet services obtained from their ISPs. Likewise, most of the respondents (46.4%) indicate that the downloading and uploading Internet speed from their ISPs does not meet their expectations. But almost 40.0% of the respondents still show that the Internet speed does meet their expectations. This reveals that even though most of the respondents do not agree that Internet speed meets their expectations, there is 40.0% of the respondents who agreed that the Internet speed provided by their ISPs

does meet their expectations. Moreover, considering the Internet speed irrespective of peak or off-peak periods, it is just a little different between the number of respondents (44.0%) that disagreed and those that agreed (42.7%). In summary for ISPs' service performance in terms of network quality from above, it clearly indicates that most of the respondents do not agree that the network quality met their expectations, thus, there is still the need for much improvement with regard to ISPs' network quality in FCT, Abuja.

The table above also interprets the respondents' opinions on "customer service and technical support" of ISPs. This indicates that most of the respondents (55.7%) agree that ISPs' customer service staff members are knowledgeable, which shows that ISPs in FCT, Abuja possess the required competency in their staff for the provision of good customer services.

For the statement that "customer service staff of the ISPs are willing to respond to enquiries", as interpreted in the table above, it confirmed that the opinion of the largest proportion of the respondents (60.0%) agreed with the view. 13.8% of respondents who choose to be neutral might not be aware of the willing feature of the service providers.

As regard the statement "there is prompt resolving of technical problems by the ISPs", as analysed in terms of the opinion of the respondents in the table above, it reveals that most of the respondents (48.0%) agreed that Internet Service Providers in the FCT Abuja are available to resolve technical issues promptly. However, it cannot be ruled out that a significant number of respondents (34.8%) are of the opinion that the ISPs do not resolve technical issues promptly. This helps to show that the ISPs need to enhance the issues of resolving technical problems in good time. Therefore, generally for the customer service and technical support dimension of the ISPs' service performance, the above analysis shows that most of the respondents agreed that the ISPs' customer service staff are knowledgeable, willing to respond to enquiries and promptly resolving technical issues. However, there are significant numbers of respondents (34.8%) that do not agree

with the statements. This implies that there is still room for improvement by the ISPs in the area of customer service and technical support.

For the “information quality” dimension of the ISPs’ service performance, it examines the provision of sufficient, up-to-date and relevant information by ISPs. Thus, considering the respondents’ opinions with respect to the statement “ISPs provide sufficient information”, this indicates that most of the respondents (58.6%) agreed with this view. However, the significant number of the respondents (41.5%) that disagree or remain neutral implies that there are some areas where sufficient information is not provided and this situation needs to be improved upon.

As regards the statement “ISPs provide up to date information”, it indicates that most of the respondents (60.2%) agreed with this view. However, the 39.8% of the respondents that disagree or remain neutral implies that there are some areas where up to date information is not provided and this needs to be improved upon.

Also, under the information quality dimension, the respondents’ opinions were examined on the statement “ISPs provide relevant information” and as interpreted from the table, indicates that most of the respondents (64.2%) agreed with this view. However, the number of the respondents (35.8%) that disagree or remain neutral implies that there are some areas where relevant information is not provided and this situation needs to be improved upon. Therefore, generally for the information quality dimension of the ISPs’ service performance, the above analysis shows that most of the respondents agreed that the ISPs provide sufficient, up to date and relevant information to customers. However, a significant number of respondents (35.8%) that do not agree with the statement or stayed neutral, implies that there is still room for improvement in the area of information quality. Considering the “security and privacy” dimension of the ISPs’ performance quality, it examines the protection of personal and financial information, and transactions online by ISPs in FCT, Abuja, Nigeria. Thus, comparing the respondents’ opinions with the

statement “personal information is protected by ISPs, sit indicates that most of the respondents (58.5%) agreed with this view. However, the number of the respondents (41.5%) that disagree or remain neutral implies that there are areas where personal information is not adequately protected and this aspect needs to be improved upon.

As regards the statement “financial information is protected by the ISPs”, it indicates that most of the respondents (59.6%) agreed with this view. However, the number of respondents (40.4%) that disagree or remain neutral implies that there are some areas where financial information is not adequately protected and this aspect needs to be improved upon.

Also, under the security and privacy dimension, the respondents’ opinions were examined on the statement “transactions with ISPs are secured” and, as interpreted from the table above, it indicates that most of the respondents (62.4%) agreed with this view. However, the number of the respondents (37.6%) that disagree or remain neutral implies that there are some areas where a transaction online is not adequately protected by the ISPs and this needs to be improved upon. Therefore, generally for the security and privacy dimension of the ISPs’ performance quality, the above analysis shows that most of the respondents agreed that personal and financial information and transaction online are protected by the ISPs. However, a significant number of respondents (37.6%) that do not agree with the statement or stayed neutral, implies that there is still room for improvement in the area of providing adequate security and privacy of customers online.

5.2.2.3 DESCRIPTIVE ANALYSIS OF CUSTOMER SATISFACTION ON ISPS’ SERVICE PERFORMANCE

This section deals with the opinion of the study participants of customer satisfaction on the ISPs’ service performance in FCT, Abuja, Nigeria. To assess this, relevant questions on customers’ satisfaction relating to ISPs’ service performance were asked (questions CS18 – CS21).

Table 5.5: Summary of Descriptive Analysis of Customer Satisfaction on ISPS' Service Performance

Scale Description	Frequency	Percent	Cumulative Percent
CS18 - My choice of my ISP was a wise one.			
Strongly isagree	298	19.8	19.8
Disagree	123	8.2	28.0
Neutral	226	15.0	43.0
Agree	612	40.7	83.7
Strongly Agree	245	16.3	100.0
CS19 - I am satisfied with my ISP.			
Strongly Disagree	250	16.6	16.6
Disagree	210	14.0	30.6
Neutral	310	20.6	51.2
Agree	488	29.8	81.0
Strongly Agree	286	19.0	100.0
CS20 - I am pleased to use the service provided by my ISP.			
Strongly Disagree	239	15.9	15.9
Disagree	198	13.2	29.1
Neutral	319	21.2	50.3
Agree	456	30.3	80.6
Strongly Agree	292	19.4	100.0
CS21 - Services provided by my ISP are excellent.			
Strongly Disagree	260	17.3	17.3
Disagree	248	16.5	33.8
Neutral	303	20.2	54.0
Agree	407	27.0	81.0
Strongly Agree	286	19.0	100.0

Table 5.5 was used to present the respondents' opinions of customer satisfaction on the ISPs' service performance in FCT, Abuja, with the statement "my choice of my ISP was a wise one". Most of the respondents (57.0%) that supported this view indicate that their choice of ISP was a wise one based on the service performance of their ISPs. However, the number of the respondents (43.0%) that disagree or remain neutral implies that a significant number of the respondents do not see the choice of their ISPs as a wise one, may be that they are not satisfied with their ISPs' service performance.

The table above interprets the respondents' opinions on whether they are satisfied with their ISPs. This indicates that most of the respondents (48.8%) agreed with the view that they are satisfied with their ISPs. Also, a significant number of the respondents (30.6%)

are not satisfied with their ISPs. This supports the reason on the above analysis why the respondents did not see the choice of their ISPs as a wise one.

Considering whether the respondents were pleased to use the services by their ISPs, is interpreted in terms of the respondents' opinions in the table above. This shows that most of the respondents (49.7%) are pleased with the services of their ISPs. Considering the other half in which the respondents (29.1%) are not pleased with services and 21.2% could not take a decision implies that there is the need for improvement of the service performance of the ISPs in FCT, Abuja.

The figures in the table above present the respondents' opinions on the statement "services provided by their ISPs are excellent". This indicates that most of the respondents (46.1%) agree with the view that the services of their ISPs are excellent whereas 20.3% are yet to take a position. In general, for customers' satisfaction with ISPs' service performance, the figures in Table 5.5 in this Section 5.2.2.3 and Table 5.4 in Section 5.2.2.2 above reveal that there are corresponding values of respondents' opinions of ISPs' service performance relating to the values of respondents' opinions on customer satisfaction. This implies that there is likely a relationship between the ISPs' service performance and customer satisfaction. It also shows that ISPs' service performance likely has an influence on customer satisfaction. However, this will be tested further in the correlation analysis.

5.2.2.4 DESCRIPTIVE ANALYSIS OF THE INFLUENCE OF INTERNET BANDWIDTH ON CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)

This section deals with the opinion of the study participants on Internet bandwidth (a moderator) interaction with ISPs' service performance as they relate to customer satisfaction and behavioural intention (customer loyalty) in FCT Abuja, Nigeria. To assess this, relevant questions were asked (questions IB22 – 1B26) relating to Internet bandwidth

interaction with ISPs' service performance as they relate to customer satisfaction and behavioural intention.

Table 5.6: Descriptive Analysis of the Influence of Internet Bandwidth on Customer Satisfaction and Behavioural Intention (Customer Loyalty)

Scale Description	Frequency	Percent	Cumulative Percent
IB22 - The Internet bandwidth provided by my ISP for surfing the Internet meets my expectation.			
Strongly Disagree	337	22.4	22.4
Disagree	319	21.2	43.6
Neutral	206	13.7	57.3
Agree	400	26.6	83.9
Strongly Agree	242	16.1	100.0
IB23 - The Internet bandwidth provided by my ISP for streaming videos is adequate for me.			
Strongly Disagree	366	24.3	24.3
Disagree	287	19.1	43.4
Neutral	206	13.7	57.1
Agree	389	25.9	83.0
Strongly Agree	256	17.0	100.0
IB24 - The Internet bandwidth I obtain from my ISP makes downloading of files fast.			
Strongly Disagree	365	24.3	24.3
Disagree	264	17.6	41.9
Neutral	194	12.9	54.8
Agree	407	27.0	81.8
Strongly Agree	274	18.2	100.0
IB25 - The Internet bandwidth provided by my ISP is sufficient to making my online transaction smooth and fast.			
Strongly Disagree	363	24.1	24.1
Disagree	232	15.4	39.5
Neutral	194	12.9	52.4
Agree	433	28.8	81.2
Strongly Agree	282	18.8	100.0
IB26 - If I notice a shortfall in bandwidth delivered to me by my ISP? I will leave my ISP for another service provider.			
Strongly Disagree	393	26.1	26.1
Disagree	244	16.2	42.3
Neutral	222	14.8	57.1
Agree	358	23.8	80.9
Strongly Agree	287	19.1	100.0

Table 5.6 summarises the opinions of the respondents on Internet bandwidth interaction with ISPs' service performance as it relates to customer satisfaction and behavioural intention (customer loyalty) in FCT, Abuja. Considering the statement "the Internet bandwidth provided by my ISP for surfing the Internet meets my expectation", almost an

equal number of the respondents (43.6%) disagreed and (42.7) agreed that the Internet bandwidth provided by their ISPs for surfing the Internet meets their expectations, with 13.8% of the respondents yet to take a position. This may imply that Internet bandwidth likely has influence on ISPs service performance which in turn will have an effect on customer satisfaction and behavioural intention. It also shows that the Internet bandwidth in FCT, Abuja needs attention for improvement.

The respondent opinions on whether the Internet bandwidth provided by ISPs for streaming videos is adequate, almost equal numbers of the respondents (43.4%) disagreed and (42.9%) agreed that the Internet bandwidth provided by the ISPs for streaming videos is adequate, 13.7% are yet to take a position. This also supports the view that Internet bandwidth likely has influence on ISPs service performance which in turn will have an effect on customer satisfaction and behavioural intention. It also indicates that the Internet bandwidth in FCT, Abuja, needs to be improved.

For the respondents' opinions on whether the Internet bandwidth they obtain from their ISPs makes downloading of files fast, the analysis shows that although most of the respondents (45.3%) agreed that the Internet bandwidth they obtain from their ISPs makes downloading of files fast, as many as 12.9% are yet to make a decision, while a significant number of respondents (41.9%) disagreed with the view. This further reinforces the likely influence of Internet bandwidth on ISPs' service performance, customer satisfaction and behavioural intention as well as indicating that Internet bandwidth in FCT, Abuja needs to be improved.

As for the respondents' opinions on whether the Internet bandwidth provided by their ISPs is sufficient to making their online transaction smooth and fast, the analysis indicates that most of the respondents (47.6%) agreed that the Internet bandwidth provided by their ISPs is sufficient for making their online transaction smooth and fast while 12.9% are yet to make a decision. But a significant number of respondents (39.5%) disagreed with the

view. This further supports the likely influence of Internet bandwidth on ISPs' service performance, customer satisfaction and behavioural intention as well as indicating that Internet bandwidth in FCT, Abuja needs improvement.

As regards the respondents' opinions on whether' if they discovered that the bandwidth or speed advertised to customers by their ISPs have somewhat of a shortfall compared to the value delivered to them, they will leave their ISPs for another service provider, approximately equal number of respondents (42.9%) agreed and (42.3%) disagreed. This further shows more support that the Internet bandwidth likely has influence on ISPs' service performance, customer satisfaction and behavioural intention and, as well, indicates that Internet bandwidth in FCT Abuja, needs to be enhanced.

5.2.2.5 DESCRIPTIVE ANALYSIS OF THE INFLUENCE OF PRICES OF INTERNET USERS' ACCESS ON CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)

This section deals with the opinions of the study participants on prices of Internet users' access (a moderator), interaction with ISPs' service performance as they relate to customer satisfaction and behavioural intention (customer loyalty) in FCT Abuja, Nigeria. To assess this, relevant questions were asked (questions PI27 – PI30) with respect to prices of Internet users' access interaction with ISPs' service performance as they relate to customer satisfaction and behavioural intention,

Table 5.7: Descriptive Analysis of the Influence of Prices of Internet Users' Access on Customer Satisfaction and Behavioural Intention (Customer Loyalty)

Scale Description	Frequency	Percent	Cumulative Percent
PI27 - My ISP provides reasonable prices.			
Strongly disagree	322	21.4	21.4
Disagree	178	11.8	33.2
Neutral	198	13.2	46.4
Agree	482	32.1	78.5
Strongly Agree	324	21.5	100.0
PI28 - My ISP provides competitive prices.			
Strongly disagree	249	16.6	16.6
Disagree	155	10.3	26.9
Neutral	181	12.0	38.9

Agree	525	34.9	73.8
Strongly Agree	394	26.2	100.0
PI29 - My ISP provides various price offers.			
Strongly disagree	273	18.2	18.2
Disagree	106	7.1	25.3
Neutral	135	9.0	34.3
Agree	575	38.2	72.5
Strongly Agree	415	27.5	100.0
PI30 - If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP.			
Strongly disagree	268	17.8	17.8
Disagree	133	8.8	26.6
Neutral	185	12.3	38.9
Agree	490	32.6	71.5
Strongly Agree	428	28.5	100.0

Table 5.7 presents data about the respondents' opinions on whether their ISPs provide reasonable prices. However, the analysis shows that most of the respondents (53.6%) agreed that their ISPs provide reasonable prices while 13.3% are yet to make a decision, a significant number of respondents (33.2%) disagreed with the view. This shows that the prices of Internet users' access interaction with ISPs' service performance likely have influence on customers' satisfaction and behavioural intention as well as indicating that prices of Internet users' access in FCT Abuja, Nigeria needs to be reviewed.

The table above analyses the respondents' opinions on the statement "ISP provides competitive prices". the analysis shows that the majority of the respondents (61.1%) agreed with this view, as 12.2% of the respondents are yet to take a position. This indicates that ISP provides competitive prices but slightly over a quarter of the respondents also disagreed, showing that the issue of prices of Internet users' access needs to be reviewed in FCT, Abuja.

As for the respondents' opinions on whether the ISPs provide various price offers, the analysis indicates that most of the respondents (65.8%) agreed that the ISPs provide various price offers but a quarter of the respondents also disagreed, showing that the issue of prices of Internet users' access needs to be reviewed in FCT Abuja.

As regards the respondents' opinions on the statement "If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP", the analysis shows that most of the respondents (61.1%) agreed that if they notice that their ISPs' prices for services are now higher than other service providers, they will consider switching to another ISP. Though slightly over a quarter of the respondents (26.6%) disagreed with the view, this analysis indicates that prices of Internet users' access interaction with ISPs' service performance likely have a significant influence on customers' satisfaction and behavioural intention. It also shows the need to always consider prices of Internet users' access along with quality of service to enable affordability of quality service that would enhance Internet service uptake or usage.

5.2.2.6 DESCRIPTIVE ANALYSIS OF BEHAVIOURAL INTENTION OF CUSTOMERS (CUSTOMER LOYALTY)

This section deals with the opinion of the study participants on behavioural Intention of customers (customer loyalty). This is to describe the likely customer satisfaction of ISPs' service performance on behavioural intention of customers in FCT, Abuja, Nigeria. To assess this, relevant questions relating to behavioural intention of customers were asked (questions BI31 – BI36).

Table 5.8: Summary of Descriptive Analysis of Behavioural Intention of Customers (Customer Loyalty)

Scale Description	Frequency	Percent	Cumulative Percent
BI31 - I will deal with my ISP more in future.			
Strongly Disagree	280	18.6	18.6
Disagree	174	11.6	30.2
Neutral	356	23.7	53.9
Agree	445	29.6	83.5
Strongly Agree	249	16.6	100.0
BI32 - I would consider my ISP as my first choice.			
Strongly Disagree	243	16.2	16.2
Disagree	183	12.2	28.4
Neutral	355	23.6	52.0
Agree	440	29.3	81.3
Strongly Agree	283	18.8	100.0
BI33 - I will say favourable things about my ISP.			

Scale Description	Frequency	Percent	Cumulative Percent
Strongly Disagree	221	15.6	15.6
Disagree	154	10.2	25.8
Neutral	287	19.0	44.8
Agree	532	35.4	80.2
Strongly Agree	297	19.8	100.0
BI34 - I will recommend my ISP to other people.			
Strongly Disagree	250	16.6	16.6
Disagree	146	9.7	26.3
Neutral	287	19.1	45.4
Agree	538	35.8	81.2
Strongly Agree	283	18.8	100.0
BI35 - I will be a loyal customer of my ISP.			
Strongly Disagree	245	16.3	16.3
Disagree	202	13.4	29.7
Neutral	336	22.3	52.0
Agree	434	28.9	80.9
Strongly Agree	287	19.1	100.0
BI36 - I will not switch to competitors if my ISP increases price a little.			
Strongly Disagree	288	19.2	19.2
Disagree	348	23.1	42.3
Neutral	208	13.8	56.1
Agree	390	25.9	82.0
Strongly Agree	270	18.0	100.0

In Table 5.8 on the respondents' opinions on the statement "I will deal with my ISP more in future", shows that most of the respondents (46.2%) indicate that they will deal with their ISPs more in future as 23.8% are yet to take a position. But a significant number of the respondents (30.2%) also disagreed to deal with their ISPs in future. This implies that for the respondents who disagreed to deal with their ISPs in future are not satisfied with the service performance of their ISPs. This calls for remedial intervention to enhance the service performance of the ISPs.

Regarding the respondents' opinions on whether they would consider their ISPs as their first choice, the shows that most of the respondents (48.1%) agreed that they would consider their ISPs as their first choice as 23.8% are yet to make a decision. However, 35.8%of the respondents disagreed that they would consider their ISPs as their first choice. This implies that for the respondents who disagreed that they would consider their ISPs as their first choice are also not satisfied with the services provided by their ISPs. This reveals the need to enhance the service performance of their ISPs in FCT, Abuja.

For the respondents' opinions on whether they will say favourable things about their ISPs, it shows that most of the respondents (55.2%) agreed that they will say favourable things about their ISPs as 19.0% are yet to make a decision. This implies that the 25.8% respondents who disagreed to say favourable things about their ISPs are also not satisfied with the services provided by their ISPs. This reveals the need to enhance the service performance of their ISPs in FCT, Abuja.

As for the respondents' opinions on whether they will recommend their ISPs to other people, the analysis reveals that most of the respondents (54.6%) agreed that they will recommend their ISPs to other people as 19.1% are yet to take a position. This implies that the 64.5% respondents who disagreed to recommend their ISPs or stayed neutral are also not satisfied with the services provided by their ISPs. This shows the need to enhance the service performance of their ISPs in FCT, Abuja.

As regards the respondents' opinions on whether they will be loyal to their ISPs, it shows that most of the respondents (48.0%) agreed that they will be loyal to their ISPs as 22.3% are yet to make a decision. This implies that the 74.3% respondents who disagreed to be loyal their ISPs or stayed neutral are also not satisfied with the services provided by their ISPs. This shows the need to improve the service performance of their ISPs in FCT, Abuja.

Considering the respondents' opinions on whether they will not switch to competitors if their ISPs increase prices a little, it shows that most of the respondents (43.9%) agreed that they will not switch to competitors if their ISPs increase prices. However, the significant number of respondents (42.3%) that disagreed is almost the same as the number of respondents that agreed. This reveals that price is an important factor that can influence behavioural intention.

Finally, for the behavioural intention of customers (customer loyalty), the figures in the Table 5.4 in Section 5.2.2.2 and Table 5.5 in Section 5.2.2.3 as well as in Table 5.8 in

this Section 5.2.2.6 reveal that there are corresponding values of respondents' opinions of ISPs' service performance relating to the values of respondents' opinions on customer satisfaction and the values of respondents' opinions of customers' satisfaction is also relating to the values of respondents' opinions on behavioural intention (customer loyalty). This implies that there is likely a relationship between the ISPs' service performance and customer satisfaction, which in turn leads to behavioural intention. It also shows that customer satisfaction likely has influence on behavioural intention. It would also be significant to state that even though ISPs' service performance has influence on customer satisfaction, which subsequently has an effect on behavioural intention, the issue of prices or cost should also be considered and not taken for granted when dealing with behavioural intention within the ISP sector. This analysis shows that price is a factor that may influence behavioural intention. However, this will be further assessed in the correlation analysis.

5.2.3 BIVARIATE ANALYSIS - CORRELATION ANALYSIS OF VARIABLES

Correlation analysis was carried out in this study to test the interrelationship between variables as well as the significance of the relationship between these same variables. The test was likewise used to examine whether the relationship as well as the consistency between the variables result in a shared situation where the rise in one variable prompt either a direct rise or reduction in the other variable (Kozak *et al.*, 2012). Correlation coefficient from +1 to -1 demonstrates that the correlation can be either positive or negative. A negative correlation implies a negative relationship between two variables while a positive correlation implies a positive relationship. Where the correlation coefficient is ≤ 0.3 , the relationship between the variables under investigation will be regarded as weak. Where the correlation coefficient is 0.5, the relationship between the variables is judged to be moderate, and where the correlation coefficient is > 0.7 , the correlation between variables will be considered strong. Correlation coefficient (r) shows

the strength and direction of the linear relationship between variables while p value indicates statistically significant i.e., if the correlation coefficient is significantly different from zero (Holmes *et al.*, 2015). When p value is < 0.05, it indicates that there is a significant linear relationship between the variables being tested (Holmes *et al.*, 2015). When the p value is > 0.05, it indicates that there is no significant linear relationship between variables being tested (Holmes *et al.*, 2015).

Table 5.9: Correlation Matrix of ISPs’ Service Performance and Customer Satisfaction.

CORRELATION MATRIX OF ISPS’ SERVICE PERFORMANCE AND CUSTOMER SATISFACTION.			
ISPs’ Service Performance Dimensions	Customer Satisfaction		
Components of Network Quality	1.000		
Non experience of Internet disconnection	0.5719*		
Downloading and uploading Internet speed		1.000	
Internet speed regardless peak or off-peak hours		0.6629*	1.000
			0.6677*
Components of Customer Service	1.000		
Customer service staff are knowledgeable	0.6724*		
Willing to respond to enquiries		1.000	
Prompt resolving of technical problems		0.7156*	1.000
			0.7479*
Components of Information Quality	1.000		
Provides sufficient information	0.7266*		
Provides up-to-date information		1.000	
Provides relevant information		0.7374*	1.000
			0.7489*
Components of Security and Privacy	1.000		
Personal information is protected	0.6970*		
Financial information is protected		1.000	
Transactions are secured		0.7338*	1.000
			0.7462*

p<0.05 (p-value)

Table 5.9 presents the correlation matrix of ISPs’ service performance and customer satisfactions. The table indicates ISPs’ service performance dimensions that include the components of network quality, customer service and technical support, information quality and security and privacy. The analysis reveals that the components of network

quality analysis with the correlation coefficient (r), that is non-experience of Internet disconnection (r=0.5719), downloading and uploading Internet speed (r=0.6629), and Internet speed regardless of peak or off-peak hours (r=0.6677) have relatively positive correlation with customer satisfaction.

The correlation coefficients (r) of customer services and technical support with customer service staff are knowledgeable (r=0.6724), willingness to respond to enquiries (r=0.7156) and prompt resolving of technical problem (0.7479) indicate a correlation with customer satisfaction.

The table also reveals the correlation coefficients (r) of the components of information quality with provision of sufficient information (r=0.7266), provision of up-to-date information (r=0.7374), provision of relevant information (r=0.7489), which show that there is an upward relationship of information quality with customer satisfaction. Likewise, the table further reveals the correlation coefficients (r) of the components of security and privacy with personal information protected (r=0.6970), financial information protected (r=0.7338) and transaction secured (r=0.7462) which also indicate that there is an upward relationship of security and privacy with customer satisfaction.

the correlation matrix indicates that network quality, customer service and technical support, information quality, security and privacy have positive correlation with customer satisfaction. It also shows that network quality, customer service and technical support, information quality, security and privacy have different predictive strength in relation to customer satisfaction.

Table 5.10: Correlation Matrix of Behavioural Intention, Internet Bandwidth, Prices of Internet Users' Access with Customer Satisfaction

Behavioural Intention	Customer Satisfaction		
Deal with ISP more in future	1.000		
	0.8028*		
Consider ISP my first choice		1.000	
		0.8364*	
Say favourable things about ISP			1.000
			0.8110*
			1.000

Recommend ISP to others				0.7873*	
Customer loyalty to ISP				1.000	
				0.8040*	
Switch to competitors with increase in price					1.000
					0.7573*
Internet Bandwidth	1.000				
Internet bandwidth provided for surfing the Internet meet expectation	0.7256*				
		1.000			
Internet bandwidth provided for streaming videos is adequate		0.7402*			
			1.000		
Internet bandwidth provided for downloading files is fast			0.7342*		
				1.000	
Internet bandwidth provided for online transaction is sufficient.				0.7476*	
					1.000
Likely to switch to another ISP if speed advertised has shortfall somewhat					0.7303*
Prices of Internet Users' Access	1.000				
Reasonable Prices	0.6960*				
		1.000			
Competitive Prices		0.6994*			
			1.000		
Various Prices Offers			0.7166*		
				1.000	
Likely to switch to another ISP if prices for services are higher					0.7122*

* $p < 0.05$ (p-value)

The outcome of the correlation analysis as presented in the Table 5.10 shows the correlation between behavioural intention, Internet bandwidth and prices of Internet users' access with customer satisfaction. The analysis reveals for each the components of behavioural intention as: deal with ISP more in future ($r=0.8028$); consider ISP my first choice ($r=0.8364$); say favourable things about ISP ($r=0.8110$); recommend ISP to others ($r=0.7873$); customer loyal to ISP ($r=0.8040$); likely switch to competitors if there is increase in price ($r=0.7573$). The table also shows the correlation coefficient for the components of Internet bandwidth that include Internet bandwidth provided for surfing the Internet meet expectation ($r=0.7256$); Internet bandwidth provided for streaming videos

is adequate ($r=0.7402$); Internet bandwidth provided for downloading file fast ($r=0.7342$); Internet bandwidth provided for online transaction is sufficient ($r=0.7476$); leave ISP for another if speed advertised has shortfall somewhat (0.7303). It is further presented in the table correlation coefficient of components of prices of Internet users' access that include reasonable prices ($r=0.6960$); competitive prices ($r=0.6994$); various price offers ($r=0.7166$); and likely to switch from one ISP to another if prices for services are higher ($r=0.7122$).

These correlation coefficient values indicated shows there is a positive correlation with customer satisfaction. Similarly, in the table, it was observed that there is a positive correlation between customer satisfaction and behavioural intention. In other words, customer satisfaction can predict behavioural intention at the 0.05 level of significance.

5.2.4 MULTIVARIATE ANALYSIS

This section shows the third level of analysis in this study. It employs regression analysis technique. This is because most of the variables are better analysed using regression technique to address the objectives of this study by converting the variables to continuous numeric variables. This also allows this study to assess the hypotheses formulated and interpret the results.

Regression analysis is frequently used in research to analyse relationships that exist between independent and dependent variables. The dependent variable is commonly called the output, observed or outcome variable, while the independent variables (sometimes referred to as predictors) are the instruments through which the outcomes can be achieved. Thus, this section presents the relationships that exist between independent and dependent variables using regression analysis. The outcomes of the analysis are shown in tables in sub-sections below.

5.2.4.1 OBJECTIVE ONE: INVESTIGATE THE EXTENT TO WHICH ISPS' SERVICE PERFORMANCE RELATES TO CUSTOMER SATISFACTION IN FCT ABUJA, NIGERIA

Table 5.11: The Extent to Which ISPs' Service Performance Relates to Customer Satisfaction in FCT Abuja, Nigeria

ISPs' Service Performance	Customer Satisfaction		
	Coef.	p-value	95% CI
Components of Network Quality			
Non-experience Internet of disconnection	0.375	0.000	0.256 – 0.494
Downloading and uploading Internet speed	0.468	0.000	0.328 – 0.607
Internet speed regardless peak or off-peak hours	0.434	0.000	0.298 – 0.570
Components of Customer Service and Technical			
Customer service staff are knowledgeable.	-0.018	0.815	-0.164 – 0.129
Willing to respond to enquiries.	0.075	0.372	0.090 – 0.241
Prompt to resolve technical problems	0.614	0.000	0.471 – 0.756
Components of Information Quality			
Provides sufficient information	0.070	0.401	- 0.094 – 0.234
Provides up-to-date information	0.324	0.000	0.148 – 0.495
Provides relevant information	0.322	0.000	0.221 – 0.570
Components of Security and Privacy			
Personal information is protected	0.116	0.162	- 0.046 – 0.279
Financial information is protected	0.316	0.001	0.127 – 0.505
Transactions are secured	0.724	0.000	0.543 – 0.907
Model statistics			
Prob>f	455.54 (0.000)		
R-squared	0.7857		
Adj R-squared	0.7840		

*p<0.05 (p-value)

Table 5.11 shows that the ISPs' service performance could explain 78.57% variations in customer satisfaction and this degree of variation was statistically significant (f-statistic=455.54, p<0.05). With respect to components of network quality, it reveals that the extent of the relationship of non-experience of Internet disconnection; downloading and uploading Internet speed; and Internet speed regardless peak or off-peak hours are positively related to customers' satisfaction. Non-experience of Internet disconnection increases customer satisfaction to 37.5% (p<0.05, 95%CI: 0.256 – 0.494). Downloading and uploading Internet speed contributed 46.8% increase to customer satisfaction

($p < 0.05$, 95%CI: 0.328 – 0.607) while Internet speed regardless peak or off-peak hours could improve customers' satisfaction by 43.4% ($p < 0.05$, 95%CI: 0.298 – 0.570).

For the components of customer service and technical support, the component that determines whether the customer service staff are knowledgeable, decrease customer satisfaction by 1.8% though it was not statistically significant ($p > 0.05$, 95%CI: -0.164 – 0.129). Willingness to respond to enquiries shows variation in customer satisfaction by 7.5% ($p > 0.05$, 95%CI: 0.126 - 0.504) while prompt to resolve technical problems contributes significantly by 61.4% ($p < 0.05$, 95%CI: 0.471 – 0.756) to customer satisfaction.

With respect to information quality, the component that states providing up-to-date and provision of relevant information indicate 32.4% ($p < 0.05$, 95%CI: 0.148 – 0.495) and 32.2% ($p < 0.05$, 95%CI: 0.221 – 0.570) degree variation in customer satisfaction respectively. While with security and privacy, the components such as financial information protection and transactions' security have a positive relationship with customer satisfaction with degree of variation of 31.6% ($p < 0.05$, 95%CI: 0.127 – 0.505) and 72.4% ($p < 0.05$, 95%CI: 0.543 – 0.907) respectively.

The above explanation shows that network quality, information quality, security and privacy are the most statistically significant components of ISPs' service performance to improve customer satisfaction. Increase in any of these components will lead to increase in customer satisfaction. Statistically, the model shows that the Internet user's satisfaction will be enhanced to 78.57% with improvement in ISPs' service performance. Hence, ISPs' service performance can predict and increase customer satisfaction among the Internet users in FCT Abuja Nigeria.

5.2.4.2 OBJECTIVE TWO: EXAMINE THE EXTENT TO WHICH THE INTERACTION OF ISPS' SERVICE PERFORMANCE AND MODERATORS (I.E., INTERNET BANDWIDTH AND PRICES OF INTERNET USERS' ACCESS) INFLUENCE CUSTOMER SATISFACTION IN FCT ABUJA, NIGERIA

Table 5.12: The Extent to Which the Interaction of ISPs' Service Performance and Moderators (i.e., Internet Bandwidth and Prices of Internet Users' Access) Influence Customer Satisfaction in FCT Abuja, Nigeria

ISPs' Service Performance	Customers' Satisfaction			Customers' Satisfaction		
	Coef.	P-value	95% CI	Coef.	p-value	95% CI
Network Quality						
Experience Internet Disconnection	0.375	0.000	0.257 – 0.494	0.214	0.000	0.111 – 0.316
Downloading and uploading Internet speed	0.467	0.000	0.328 – 0.607	0.087	0.168	-0.037 – 0.212
Peak or off-peak hours	0.434	0.000	0.298 – 0.570	0.074	0.238	-0.049 – 0.197
Components of Customer Service and Technical						
Knowledgeable.	-0.017	0.815	-0.164 – 0.129	0.009	0.880	-0.118 – 0.137
Willing to respond to enquiries.	0.075	0.372	-0.090 – 0.248	0.166	0.023	0.234 – 0.309
Resolving of technical problems	0.614	0.000	0.471 – 0.756	0.300	0.000	0.173 – 0.427
Components of Information Quality						
Provides sufficient information	0.070	0.401	-0.093 – 0.233	-0.004	0.955	-0.144 – 0.136
Provides up-to-date information	0.321	0.000	0.148 – 0.495	0.335	0.000	0.185 – 0.485
Provides relevant information	0.395	0.000	0.221 - 0.569	0.263	0.001	0.112 – 0.414
Components of Security and Privacy						
Personal information is protected	0.116	0.162	-0.046 – 0.279	0.067	0.342	-0.072 – 0.207
Financial information is protected	0.316	0.001	0.127 – 0.505	0.346	0.000	0.182 – 0.511
Transactions are secured	0.724	0.000	0.543 – 0.906	0.479	0.000	0.321 – 0.638
Moderators						
Components of Internet bandwidth				0.203	0.004	0.065 – 0.341
Surfing Expectation				0.251	0.000	0.103 – 0.399
Streaming Videos				0.301	0.000	0.151 – 0.450
Downloading Fast				0.409	0.000	0.260 – 0.557
Online Transaction				0.237	0.001	0.099 – 0.374
Speed Advertised						
Components of price of Internet users' access				0.161	0.014	0.032 – 0.290
Reasonable Prices				-0.107	0.140	-0.251 – 0.035
Competitive Prices				0.191	0.008	0.051 – 0.332
Various Prices Offers				0.021	0.761	-0.115 – 0.157
Keeps Records and Bills Accurate						
Model statistics						
Prob>f	Model 1			Model 2		
	445.54 (0.000)			383.10 (0.000)		
R-squared	0.7857			0.8444		
Adj R-squared	0.7840			0.8422		

*p<0.05 (p-value)

Table 5.12 presents two models that show the extent to which the interaction of ISPs' service performance and moderators (i.e., Internet bandwidth and prices of Internet users' access) influence customer satisfaction.

In model 1, network quality significantly predicts extent of relationship between non-experience of Internet disconnection (coef=0.375, $p<0.05$, 95%CI: 0.257 – 0.494) downloading and uploading speed (coef=0.467, $p<0.05$, 95%CI: 0.328 – 0.607), peak or off-peak hours (coef= 0.434, $p<0.05$, 95%CI: 0.298 – 0.570) and customer satisfaction. For customer service and technical support, the component prompt to resolving technical problems explain 61.4% variation in customer satisfaction ($p<0.05$, 95%CI: 0.471 – 0.756). With respect to information quality, the component “providing up to date information” (32.1%) and “provision of relevant information” (39.5%) have a positive relationship with customer satisfaction. While for security and privacy, the components, “protection on financial information” ($p<0.05$, 95%CI: 0.127 – 0.505) and “secured transaction” ($p<0.05$, 95%CI: 0.543 – 0.906) indicate 31.6% and 72.4% significant variability in customer satisfaction respectively, indicating that these components have significant relationship with customer satisfaction.

In Model 2, the inclusion of Internet bandwidth and prices of Internet users’ access as moderators shows that non-experience of Internet disconnection explains 21.4% variation in customer satisfaction ($p<0.05$, 95%CI: 0.111 - 0.316). The impact of prompt to resolve technical problems shows an increase 30.0% in customer satisfaction. With respect to information quality, the component “provision of up-to-date information” ($p<0.05$, 95%CI: 0.185 – 0.485) and “provision of relevant information” ($p<0.05$, 95%CI: 0.112 – 0.414) indicate significant increase of 33.5% and 26.3% in customer satisfaction respectively. Furthermore, the impact on security and privacy, the components, “protection of financial information” ($p<0.05$, 95%CI: 0.182 – 0.511) and “secured transaction” ($p<0.05$, 95%CI: 0.321 – 0.638) significantly influence customers satisfaction to 34.6% and 47.9% respectively.

The analysis shows further that the interaction of ISPs’ service performance with Internet bandwidth have a positive significant influence on customer satisfaction by indicating that

the components, Internet bandwidth provided for streaming of videos is adequate (coef=0.301%, $p < 0.05$, 95%CI: 0.151-0.450) and Internet bandwidth provided for downloading files is fast (coef=0.409, $p < 0.05$, 95%CI: 0.260-0.557) significantly predict the extent of influence of the interaction of ISPs' service performance and Internet bandwidth on customer satisfaction.

The interaction of ISPs' service performance and prices of Internet users' access fairly predict customer satisfaction. For instance, the components, reasonable price (coef=0.161, $p < 0.05$, 95%CI: 0.032 – 0.290) and various price offers (coef=0.191, $p < 0.05$, 95%CI: 0.051 – 0.332) indicate weak but positive variation in customer satisfaction.

However, the model statistics show that ISPs' service performance could explain 78.5% variation of customer satisfaction. While the interaction of ISPs' service performance and moderators (Internet bandwidth and prices of Internet users' access) indicate 84.4% variation in customer satisfaction. This implies that the interaction of ISPs' service performance with moderators (i.e., Internet bandwidth and prices of Internet users' access) have a stronger significant influence on customer satisfaction than the influence of ISP's service performance directly on customer satisfaction.

Model 2 further indicates that the need to also include and focus on Internet bandwidth and prices of Internet users' access as part of their strategies cannot be underestimated. Statistically, the analysis reveals that it is important for ISPs to also develop more Internet bandwidth and regulate price of Internet user's access with huge attention on their service performance in order to improve customer satisfaction. Thus, the model indicates that statistically, improvement in customer satisfaction will increase to 84.44% if ISPs pay attention to service performance, Internet bandwidth and prices of Internet users' access among Internet users in Abuja Nigeria.

5.2.4.3 OBJECTIVE THREE: EXAMINE THE EXTENT OF THE RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION IN FCT ABUJA, NIGERIA.

Table 5.13: The Extent of the Relationship Between Customer Satisfaction and Behavioural Intention in FCT Abuja, Nigeria

ISPs' Service Performance	Behavioural Intention		
	Coef.	p-value	95% CI
Components of Customer Satisfaction			
Choice of ISP was a wise one	1.091	0.000	0.908 – 1.274
Satisfied with ISP	0.957	0.000	0.713 – 0.201
Please to use Services by ISP	1.515	0.000	1.280 – 1.750
Services provided by ISP are excellent	1.731	0.000	1.512 – 1.948
Model statistics			
	Model 1		
Prob>f	1487.41 (0.000)		
R-squared	0.7988		
Adj R-squared	0.7982		

*p<0.05 (p-value)

Table 5.13 presents a model which indicates that customer satisfaction explains 79.8% significant variation in behavioural intention. Thus, the model shows the components of customer satisfaction as choice of ISP was a wise one (p<0.05, 95%CI: 0.908 – 1.274), satisfaction with ISP (p<0.05, 95%CI: 0.713-0.201) and excellent services (p<0.05, 95%CI: 1.512-1948) have statistically significant relationship with behavioural intention, having the predicting power of 1.09, 0.957 and 1.731 variation respectively in behavioural intention. This implies statistically that customer satisfaction has a positive relationship with behavioural intention of Internet users. This indicates that with increase in customer satisfaction, Internet users' behavioural intention will be positive towards the services of ISPs, by demanding for their services. Thus, the analysis reveals that customer satisfaction could improve Internet users' behavioural intention positively to 79.88% and can also negatively affect Internet users' behavioural intention if there is decrease in customer satisfaction.

5.2.4.4 OBJECTIVE FOUR: DETERMINE THE EXTENT OF THE RELATIONSHIP BETWEEN ISPs' SERVICE PERFORMANCE AND BEHAVIOURAL INTENTION OF CUSTOMERS VIA THE MEDIATION OF CUSTOMER SATISFACTION

Table 5.14: The Extent of The Relationship Between ISPs' Service Performance and Behavioural Intention of Customers via the Mediation of Customer Satisfaction in FCT Abuja, Nigeria

ISPs' Service Performance	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Network Quality						
Non-experience Internet Disconnection	0.351	0.000	0.162-0.540	0.010	0.898	-0.149 – 0.171
downloading and uploading Internet speed	0.910	0.000	0.688-1.132	0.469	0.000	0.279 - 0.659
Peak or off-peak hours	0.860	0.000	0.644 -1.077	0.462	0.000	0.278 – 0.646
Components of Customer Service and Technical						
Knowledgeable.	0.041	0.730	-0.192 -0.274	0.112	0.265	-0.084 – 0.308
Willing to respond to enquiries.	0.134	0.316	-0.129 - 0.398	0.095	0.394	-0.125 – 0.271
Resolving of technical problems	0.678	0.000	0.449 – 0.905	0.075	0.456	-0.121 – 0.271
Components of Information Quality						
Provides sufficient information	0.207	0.118	-0.529 – 0.468	0.156	0.162	-0.062 – 0.374
Provides up-to-date information	0.369	0.009	0.094 – 0.646	0.126	0.286	-0.106 – 0.359
Provides relevant information	0.533	0.000	0.255 – 0.810	0.170	0.162	-0.067 – 0.401
Components of Security and Privacy						
Personal information is protected	0.393	0.003	0.134 – 0.653	0.300	0.007	0.083 – 0.516
Financial information is protected	0.248	0.104	-0.051 – 0.548	0.010	0.937	-0.242 – 0.262
Transactions are secured	0.940	0.000	0.650 – 1.229	0.339	0.007	0.091 – 0.586
Components of Customer Satisfaction						
Choice of wise ISP	-	-	-	0.558	0.000	0.357 – 0.758
Satisfied with ISP	-	-	-	0.557	0.000	0.323 – 0.791
Pleased to use Services by ISP	-	-	-	1.078	0.000	0.848 – 1.305
Services provided are excellent	-	-	-	1.233	0.000	1.018 – 1.448
Model statistics						
	Model 1			Model 2		
Prob>f	381.11 (0.000)			450.54 (0.000)		
R-squared	0.7541			0.8290		
Adj R-squared	0.7522			0.8272		

*p<0.05 (p-value)

Table 5.14 shows two models. Model 1 reveals the extent of relationship between ISPs' service performance and behaviour intention. This model indicates that components of network quality, non-experience of Internet disconnection ($p < 0.05$, 95%CI: 0.162 – 0.540), downloading and uploading Internet speed ($p < 0.05$, 95%CI: 0.688-1.132) and Internet speed regardless peak or off-peak hours ($p < 0.05$, 95%CI: 0.644 – 1.077) could explain 35.1%, 91.0% and 86.0% variation in behavioural intention respectively. Prompt to resolve technical problems could explain significant 67.8% ($p < 0.05$, 95%CI: 0.449-

0.905) variation in behavioural intention. Providing up to date provision of relevant information significantly predicted behavioural intention by 36.9% ($p < 0.05$, 95%CI: 0.094 – 0.646) and 53.3% ($p < 0.05$, 95%CI: 0.255 – 0.810) respectively. While transaction secured significantly shows 94.0% variation in behavioural intention ($p < 0.05$, 95%CI: 0.650 – 1.229). Thus, above-mentioned components of ISPs' service performance show that they have significant relationship with behavioural intention.

Model 2 indicates the inclusion of customer satisfaction as a mediator with respect to ISPs' service performance and behavioural. Thus, downloading and upload Internet speed ($p < 0.05$, 95%CI: 0.279 - 0.659) and peak or off-peak hours ($p < 0.05$, 95%CI: 0.278 – 0.646) significantly predict behavioural intention by 47.0% and 46.2%. This model also shows that customer satisfaction has significant relationship with behavioural intention. Services satisfaction (107.8%) and excellent services (123.3%) provided have positive relationship with behavioural intention. However, model 2 indicated that inclusion of customer satisfaction increases the predictive power of the model from 75.4% to 82.9%.

In summary, the above analysis shows that there are two models on the table. Model 1 assess the relationship of ISPs' service performance with behavioural intention and model 2 relate ISPs' service performance and customer satisfaction as a mediator to behavioural intention. However, this table implies that network quality, information quality, security and privacy are the key components of ISPs' service performance to predict Internet users' behavioural intention. That is, if the ISPs want to influence the Internet users' behavioural intention, there is need for them to improve their performance in network quality, information quality, security and privacy. Thus, focusing on these components, the analysis revealed that ISPs' service performance improves Internet users' behavioural intention positively to 75.41%. But the inclusion of customers' satisfaction in model 2 indicated that ISP's service performance improves Internet users' behavioural intention positively to 82.9%. Hence, when there is need for ISPs to improve Internet

users' behavioural intention, they should not only focus on and improve their service performance but also consider customer satisfaction in order to influence the Internet users' behavioural intention positively in Abuja.

5.2.4.5 OBJECTIVE FIVE: DETERMINE THE EXTENT TO WHICH CUSTOMER SATISFACTION MEDIATES THE MODERATED RELATIONSHIPS BETWEEN ISPS' SERVICE PERFORMANCE AND BEHAVIOURAL INTENTION OF CUSTOMERS IN FCT ABUJA, NIGERIA

Table 5.15: Determine the Extent to Which Customer Satisfaction Mediates the Moderated Relationships Between ISPs' Service Performance and Behavioural Intention of Customers in FCT Abuja, Nigeria

ISPS' PERFORMANCE QUALITY	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Network Quality						
Experience Internet Disconnection	0.050	0.480	-0.090 – 0.191	-0.042	0.536	-0.177 – 0.092
Downloading and uploading Internet speed	0.135	0.121	-0.035 – 0.307	0.097	0.247	-0.066 – 0.261
Peak or off-peak hours	0.108	0.208	-0.060 – 0.278	0.076	0.347	-0.083 – 0.237
Components of Customer Service and Technical						
Knowledgeable.	0.068	0.446	-0.107 – 0.243	0.089	0.293	-0.077 – 0.256
Willing to respond to enquiries.	0.048	0.005	0.086 – 0.479	0.215	0.024	0.028 – 0.402
Resolving of technical problems	0.048	0.583	-0.125 – 0.223	-0.112	0.189	-0.280 – 0.055
Components of Information Quality						
Provides sufficient information	0.032	0.740	-0.160 – 0.225	0.028	0.763	-0.155 – 0.211
Provides up-to-date information	0.372	0.000	-0.166 – 0.578	0.262	0.009	0.065 – 0.458
Provides relevant information	0.251	0.017	0.044 – 0.458	0.115	0.255	-0.083 – 0.312
Components of Security and Privacy						
Personal information is protected	0.262	0.007	0.070 – 0.455	0.234	0.012	0.051 – 0.416
Financial information is protected	0.291	0.011	0.065 – 0.516	0.156	0.154	-0.058 – 0.372
Transactions are secured	0.382	0.001	0.164 – 0.602	0.183	0.087	-0.026 – 0.394
Moderators						
Components of Internet bandwidth						
Surfing Expectation	0.648	0.000	0.459 – 0.836	0.576	0.000	0.396 – 0.756
Streaming Videos	0.553	0.000	0.351 – 0.756	0.438	0.000	0.244 – 0.632
Downloading Fast	0.516	0.000	0.311 – 0.721	0.380	0.000	0.184 – 0.576
Online Transaction	0.612	0.000	0.407 – 0.816	0.445	0.000	0.249 – 0.640
Speed Advertised	0.499	0.000	0.311 – 0.688	0.369	0.000	0.184 – 0.576
Components of price of Internet users' access						
Reasonable Prices	0.159	0.076	-0.017 – 0.336	0.093	0.274	-0.074 – 0.262
Competitive Prices	0.100	0.316	-0.096 – 0.297	0.149	0.118	-0.037 – 0.335
Various Prices Offers	0.306	0.002	0.113 – 0.499	0.234	0.013	0.050 – 0.418
Keeps Records and Bills Accurate	0.248	0.009	0.062 – 0.434	0.254	0.005	0.077 – 0.431
Components of Customer Satisfaction						
Choice of wise ISP				0.328	0.000	0.159 – 0.498
Satisfied with ISP				0.064	0.529	-0.135 – 0.264
Please to use Services by ISP				0.602	0.000	0.406 – 0.799
Services provided are excellent				0.690	0.000	0.503 – 0.877

Model statistics	Model 1	Model 2
Prob>f	461.20 (0.000)	437.89 (0.000)
R-squared	0.8673	0.8810
Adj R-squared	0.8654	0.8790

***p<0.05 (p-value)**

Table 5:15 presents two models that show the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and behavioural intention of customers (i.e., the moderators are Internet bandwidth and prices of Internet users' access). Model 1 reveals that network quality, customer services and technical supports contribute less significantly in predicting the extent of variability of behavioural intention of customers. While the components of information quality "providing up to date information" (coef= 0.372, p<0.05, 95%CI: -0.166 – 0.578) and "provision of relevant information" (coef=0.251, p<0.05, 95%CI: 0.044 – 0.458) significantly indicate positive, though in small extent of variability in behavioural intention of customers. In addition, components of security and privacy indicate that an increase in personal information protection, financial information protection and secured transactions will result in an increase in behavioural intention by 26.2%, 29.1% and 38.2% respectively.

The Model 1 also indicates that "Internet bandwidth provided for surfing meets expectation" (coef=0.648, p<0.05, 95%CI: 0.459 – 0.836), "Internet bandwidth provided for streaming videos is adequate" (coef=0.553, p<0.05, 95%CI: 0.351 – 0.756), "Internet bandwidth provided for downloading files is fast" (coef=0.156, p<0.05, 95%CI: 0.311 – 0.721), "Internet bandwidth provided for online transaction is sufficient" (coef=0.612, p<0.05, 95%CI: 0.407 – 0.816) and "likely to switch to another ISP if speed advertised has shortfall somewhat" (coef=0.499, p<0.05, 95%CI: 0.311 – 0.688) as components of Internet bandwidth that significantly predict behavioural intention of the customers. Similarly, "various price offers" and "likely to switch to another ISP if prices for services

are higher” were the components of prices of Internet users’ access that have significant relationship with behavioural intention of customers.

Model 2 shows that influence of interaction of ISPs’ service performance and moderators via customer satisfaction on behavioural intention. That is, the interactions of ISPs’ service performance with Internet bandwidth and prices of Internet users’ access via customer satisfaction, significantly influence behavioural intention of the customers. For instance, the components, Internet bandwidth provided for streaming of videos and downloading files predict behavioural intention by 43.8% and 38.0% respectively. While satisfaction with ISP services (coef=0.602, $p<0.05$, 95%CI: 0.406 – 0.799) and provision of excellent services (coef=0.690, $p<0.05$, 95%CI: 0.503 – 0.877) indicate higher variability in behavioural intention of customers than the components of prices of Internet users’ access such as various price offers (coef=0.234, $p<0.05$, 95%CI: 0.050 – 0.418) and likely to switch to another ISP if prices are higher (coef= 0.254, $p<0.05$, 95%CI: 0.077 – 0.431).

Thus, the model statistics show that ISPs’ service performance and moderators (Internet bandwidth and price of Internet users’ access) accounted for 86.73% degrees of variation of the behavioural intention of the customers. While the effect of ISPs’ service performance and moderators (Internet bandwidth and price of internet users’ access) via the mediation of customer satisfaction accounted for 88.1% degrees of variation of the behavioural intention of the customers.

This implies that the ISPs’ service performance components of information quality, security and privacy and the moderators that include Internet bandwidth and prices of Internet users’ access, are key in improving behavioural intention of Internet users to 86.73% positively. That is, if any of the components is weak there will be a decline in demand for services amounting to negative behavioural intention from the Internet users. The inclusion of customer satisfaction in the model improves behavioural intention of

Internet users to 88.10%. Hence, this study found that the ISPs should ensure that service performance, Internet bandwidth, prices of Internet users' access and customer satisfaction are taken into account in order to benefit more from behavioural intention of Internet users in Abuja Nigeria.

5.2.4.6 OUTCOMES OF HYPOTHESES' ANALYSIS

(i) ISPs' service performance is significantly related to customer satisfaction.

Testing the following hypotheses:

H1_a - Network quality is significantly related to customer satisfaction.

H1_b - Customer service and technical support is significantly related to customer satisfaction.

H1_c - Information quality is significantly related to customer satisfaction.

H1_d - Security and privacy are significantly related to customer satisfaction.

H1. Overall ISPs' service performance is significantly related to customer satisfaction.

Hypothesis H1 and its sub-hypotheses, H1_a – H1_d relates to objective 1 - investigate the extent to which ISPs' service performance relates to customer satisfaction in FCT Abuja, Nigeria. The analysis is presented in Table 5.16.

Table 5.16: Analysis of Hypotheses H1a - H1d

ISPs' Service Performance	Customers' Satisfaction		
	Coef.	p-value	95% CI
Components of Network Quality			
Experience Internet Disconnection	0.375	0.000	0.256 – 0.494
Downloading and uploading Internet speed	0.468	0.000	0.328 – 0.607
Peak or off-peak hours	0.434	0.000	0.298 – 0.570
Components of Customer Service			
Knowledgeable.	-0.018	0.815	-0.164 – 0.129
Willing to respond to enquiries.	0.075	0.372	0.090 – 0.241
Resolving of technical problems	0.614	0.000	0.471 – 0.756
Components of Information Quality			
Provides sufficient information	0.070	0.401	-0.094 – 0.234
Provides up-to-date information	0.324	0.000	0.148 – 0.495
Provides relevant information	0.322	0.000	0.221 – 0.570

Components of Security and Privacy			
Personal information is protected	0.116	0.162	-0.046 – 0.279
Financial information is protected	0.316	0.001	0.127 – 0.505
Transactions are secured	0.724	0.000	0.543 – 0.907
Model statistics			
Prob>f	0.0000		
R-squared	0.7857		
Adj R-squared	0.7840		

* $p < 0.05$ (p-value)

Table 5.16 presents the analysis Hypotheses H1_a – H1_d as follows:

H1_a- Network quality is significantly related to customer satisfaction.

The model on ISP's service performance in relation to customer satisfaction indicates that network quality is statistically associated with customer satisfaction. Hence, the non-hypothesis is rejected and the hypothesis that network quality is statistically associated with customer satisfaction is accepted.

H1_b- Customer service and technical support is significantly related to customer satisfaction. Analysis revealed that the level of significance for two of the components of customer service and technical support were greater than 0.05 ($p > 0.05$). Thus, it rejects the hypothesis **H1_b** and accepts the non-hypothesis that customer service and technical support has no statistically significant association with customer satisfaction. **That is, customer service and technical support is not significantly related to customer satisfaction.**

H1_c- Information quality is significantly related to customers' satisfaction.

The analysis reveals that there is a significant association between provision for up-to-date information ($p < 0.05$) and financial information ($p < 0.05$) except sufficient information ($p > 0.05$). Hence, this study rejects the non-hypothesis and accepts the hypothesis, and concludes that there is a significant association between information quality and customers' satisfaction.

H1_a- Security and privacy is significantly related to customer satisfaction.

The analysis reveals that protection of financial information ($p < 0.05$) and transaction ($p < 0.05$), except protection of personal information, are statistically significant to customer satisfaction. Hence, this study concludes that security and privacy is statistically associated to customer satisfaction.

H1 - Overall ISPs’ service performance is significantly related to customer satisfaction.

Table 5.17 presents the analysis of Hypotheses H1 as follows:

Table 5.17: Overall ISPS’ Service Performance is Significantly Related to Customer Satisfaction

H1 – Overall ISPs’ Service Performance is Significantly related to Customer Satisfaction				Model statistics	
Customer Satisfaction	Coef.	$p < 0.05$	95%CI	R-squared	F statistics ($p < 0.05$)
Overall ISPs’ performance quality	2.399	0.000	2.332-2.466	0.7669	4942.66 (0.000)

* $p < 0.05$ (p-value)

Table 5.17 shows that overall ISPs’ service performance is significantly associated with customer satisfaction at $p < 0.05$ and at 95% confident interval (2.332-2.466) that is’ increase in ISPs’ service performance, will increase customer satisfaction to 2.399. Thus, outcome of the analysis supports that the overall ISPs’ service performance is significantly related to customer satisfaction.

(ii) The interaction of ISPs’ service performance and Internet bandwidth significantly influence customer satisfaction.

Testing the following hypotheses:

H2_a - The interaction of network quality and Internet bandwidth significantly influence customer satisfaction.

H2_b - The interaction of customer service and technical support, and Internet bandwidth significantly influence customer satisfaction.

H2_c - The interaction of information quality and Internet bandwidth significantly influence customer satisfaction.

H2_a - The interaction of security and privacy, and Internet bandwidth significantly influence customer satisfaction.

H2 - The overall interaction of ISPs' service performance and Internet bandwidth significantly influence customer satisfaction.

Hypothesis H2 and its sub-hypotheses, H2_a – H2_d are related to research objective 2, which states: examine the extent to which the interaction of ISPs' service performance and moderators (Internet bandwidth and prices of Internet users' access) influence customer satisfaction in FCT Abuja, Nigeria.

H2_a - The interaction of network quality and Internet bandwidth significantly influence customer satisfaction.

Table 5.18 presents the analysis of Hypothesis H2_a

Table 5.18: The Interaction of Network Quality and Internet Bandwidth Significantly Influence Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	25943.3484	218	119.006185	15.68	0.0000	0.7268	0.6804
Internet Bandwidth	4077.08564	20	203.854282	26.86	0.0000		
Network quality	699.604578	12	58.3003815	7.68	0.0000		
Interaction effects	2071.096	186	11.1349248	1.47	0.0001		
Residual	9753.61969	1285	7.59036552				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Key

SS: Sum of Squares – sum of squares associated with the sources of variance i.e., regression and residual (sometimes known as error).

df – degrees of freedom associated with the sources of variance.

MS: Mean Square – sum of squares divided by their respective df.

F- F-value is the mean square regression divided by mean square residual

R-Squared: R^2 represents the percentage of variance for dependent variables and independent variables.

Table 5.18 presents the model that shows that network quality and Internet bandwidth are statistically associated with customers' satisfaction. It also reveals that the interaction of network quality and Internet bandwidth have significant mean difference in explaining the variations in customer satisfaction. However, the model shows that network quality, Internet bandwidth and interaction effect account for 72.68% variation in customer satisfaction. Thus, this study accepts the hypothesis and concludes that the interaction of network quality and Internet bandwidth is statistically associated with customer satisfaction. This implies that the outcome of the analysis supports the Hypothesis that the interaction of network quality with Internet bandwidth significantly influences customer satisfaction.

H2_b - The interaction of customer service and technical support, and Internet bandwidth significantly influences customer satisfaction.

Table 5.19 presents analysis of Hypothesis H2_b.

Table 5.19: The Interaction of Customer Service and Technical Support, and Internet Bandwidth Significantly Influences Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	30888.3398	222	139.136666	37.07	0.0000	0.8653	0.8419
customer service and technical support	2167.96583	12	180.663819	48.13	0.0000		
Internet bandwidth	3960.98901	20	198.049451	52.76	0.0000		
Interaction effects	2336.45216	190	12.2971166	3.28	0.0000		
Residual	4808.6283	1281	3.7538082				
Total	35696.9681	1503	23.7504778				

* $p < 0.05$ (p-value)

Table 5.19 shows that the model indicates that customer service and technical support ($p < 0.05$), Internet bandwidth ($p < 0.05$) and interaction effects ($p < 0.05$) account for 86.5% variation in customer satisfaction. This study concludes that there is a significant influence on customer satisfaction via interaction of customer service and technical support with

Internet bandwidth. Thus, the outcome of this analysis supports the Hypothesis that the interaction of customer service and technical support with Internet bandwidth significantly influence customer satisfaction.

H2c - The interaction of information quality and Internet bandwidth significantly influence customer satisfaction.

Table 5.20 presents the analysis for Hypothesis H2c.

Table 5.20: The Interaction of Information Quality and Internet Bandwidth Significantly Influences Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	30905.7778	209	147.874535	39.94	0.0000	0.8658	0.8441
Information quality	2578.0922	12	214.841016	58.02	0.0000		
Internet bandwidth	3113.27094	20	155.663547	42.04	0.0000		
Interaction effects	1762.26084	177	9.95627594	2.69	0.0000		
Residual	4791.19031	1294	3.70262003				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Table 5.20 shows that the model reveals that interaction of information quality and Internet bandwidth has statistically significant influence on customer satisfaction. With the inclusion of interaction effect in the model, it accounts for 86.58% variation in customer satisfaction. This study accepts the hypothesis and concludes that there is a significant association between the interaction of information quality with Internet bandwidth and customer satisfaction. Thus, the outcome of this analysis supports the Hypothesis that the interaction of information quality and Internet bandwidth significantly influence customer satisfaction.

H2d - The interaction of security and privacy, and Internet bandwidth significantly influence customer satisfaction.

Table 5.21 presents the analysis for Hypothesis H2d.

Table 5.21: THE INTERACTION OF SECURITY AND PRIVACY, AND INTERNET BANDWIDTH SIGNIFICANTLY INFLUENCE CUSTOMER SATISFACTION

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	30790.9701	210	146.623667	38.64	0.0000	0.8626	0.8402
security and privacy	2525.35917	12	210.446598	55.46	0.0000		
Internet bandwidth	2819.30793	20	140.965396	37.15	0.0000		
Interaction effects	1427.50663	178	8.01970017	2.11	0.0000		
Residual	4905.99797	1293	3.7942753				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Table 5.21 shows that the interaction of security and privacy, and Internet bandwidth significantly influences customer satisfaction. The model indicated that the inclusion of interaction effects of security and privacy and internet bandwidth accounted for 86.26% variation in customer satisfaction. It also shows that security and privacy (p<0.05) and Internet bandwidth (p<0.05) could explain significant mean difference in customer satisfaction. Thus, the outcome of this analysis supports the Hypothesis that the interaction of security and privacy with Internet bandwidth significantly influences customer satisfaction.

H2 - The overall interaction of ISPs’ service performance and Internet bandwidth significantly influence customer satisfaction.

Table 5.22 presents the analysis for Hypothesis H2.

Table 5.22: The Overall Interaction of ISPS’ Service Performance and Internet Bandwidth Significantly Influence Customer Satisfaction

H2 The interaction of overall ISPs’ service performance and internet bandwidth significantly influence customer satisfaction						
Customer satisfaction	Coef.	p<0.05	95%CI	R-squared	F statistics (p<0.05)	
Internet bandwidth	0.523	0.000	0.494-0.554	0.8515	4304.26 (0.000)	
ISPs’ performance quality	0.278	0.000	0.263-0.293			

*p<0.05 (p-value)

Table 5.22 reveals that the study accepts the alternative hypothesis that ISPs’ service performance and Internet bandwidth are statistically associated with customer satisfaction at p<0.05 and this can improve customer satisfaction to 85.15% in the study

area. Hence, this study supports the view that the interaction of the overall ISPs' service performance with Internet bandwidth is significantly related to customer satisfaction.

(iii) The interaction of ISPs' service performance and price of Internet users' access significantly influence customer satisfaction.

Testing the following hypotheses:

H3_a - The interaction of network quality and price of Internet users' access significantly influence customer satisfaction.

H3_b - The interaction of customer service and technical support, and price of Internet users' access significantly influence customer satisfaction.

H3_c - The interaction of information quality and price of Internet users' access significantly influence customer satisfaction.

H3_d - The interaction of security and privacy, and price of Internet users' access significantly influence customer satisfaction.

H3 - The overall interaction of ISPs' service performance and price of Internet users' access significantly influence customer satisfaction.

H3 and its sub-hypotheses H3_a – H3_d are related to research objective 2, which states “examine the extent to which the interaction of ISPs' service performance and moderators (Internet bandwidth and prices of Internet users' access) influence customer satisfaction in FCT Abuja, Nigeria”.

H3_a - The interaction of network quality and price of Internet users' access significantly influence customer satisfaction.

Table 5.23 presents the analysis for Hypothesis H3_a.

Table 5.23: The Interaction of Network Quality and Price of Internet Users' Access Significantly Influence Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	29002.2766	191	151.84438	29.76	0.0000	0.8125	0.7852
Network Quality	2594.40935	12	216.200779	42.37	0.0000		
Price of Internet users' access	4839.88258	16	302.492661	59.28	0.0000		
Interaction effects	1870.35026	163	11.4745414	2.25	0.0000		
Residual	6694.69153	1312	5.10266122				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Table 5.23 shows that the mean difference between network quality and prices of Internet users' access have a significant influence over difference in customer satisfaction. The analysis also shows that the inclusion of interaction of network quality and price of Internet users' access in the model accounts for 81.25% variation in customer satisfaction. Thus, the outcome of the analysis supports the Hypothesis that the interaction of network quality and price of Internet users' access significantly influence customer satisfaction.

H3_b - The interaction of customer service and technical support, and price of Internet users' access significantly influence customer satisfaction.

Table 5.24 presents the analysis for Hypothesis H3_b.

Table 5.24: The Interaction of Customer Service and Technical Support, and Price of Internet Users' Access Significantly Influence Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	28071.7783	177	158.597617	27.58	0.0000	0.7864	0.7579
Customer service and technical support	2245.92582	12	187.160485	32.55	0.0000		
Price of Internet users' access	1980.15645	16	123.759778	21.52	0.0000		
Interaction effects	2449.83701	149	16.4418591	2.86	0.0000		
Residual	7625.18979	1326	5.7505202				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Table 5.24 shows that the analysis indicates that customer service and technical support, price of Internet users' access and the interaction effects significantly influence customer satisfaction to 78.64%, while customer service and technical support and price of Internet users' access has significant mean difference in explaining the variation in customer

satisfaction. Thus, the outcome of the analysis supports the Hypothesis that the interaction of customer service and technical support with prices of Internet users' access significantly influence customer satisfaction.

H3_c - The interaction of information quality and price of Internet users' access significantly influence customer satisfaction.

Table 5.25 presents the analysis for Hypothesis H3_c.

Table 5.25: The Interaction of Information Quality and Price of Internet Users' Access Significantly Influence Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	28071.7783	177	158.597617	27.58	0.0000	0.7864	0.7579
Information quality	2245.92582	12	187.160485	32.55	0.0000		
Price of Internet users' access	1980.15645	16	123.759778	21.52	0.0000		
Interaction effects	2449.83701	149	16.4418591	2.86	0.0000		
Residual	7625.18979	1326	5.7505202				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Table 5.25 shows that information quality (p<0.05) and price of Internet users' access (p<0.05) indicate significant mean difference in explaining variations in customer satisfaction, while the inclusion of interaction effect of information quality and price of Internet users' access in the model account for 78.64% variation in customer satisfaction. Thus, this study concludes that interaction of information quality and prices of Internet users' access has statistically significant influence on customer satisfaction. Thus, the outcome of the analysis supports the Hypothesis that the interaction of information quality and price of Internet users' access significantly influence customer satisfaction.

H3_d - The interaction of security and privacy, and price of Internet users' access significantly influence customer satisfaction.

Table 5.26 presents the analysis for Hypothesis H3_d.

Table 5.26: The Interaction of Security and Privacy, and Price of Internet Users' Access Significantly Influence Customer Satisfaction

Source	Partial	SS	df	MS	F	R-square	Adj R-Square
Model	26385.97	172	153.406838	21.93	0.0000	0.7392	0.7055
Security and Privacy	1966.52	12	163.876626	23.43	0.0000		
Price of Internet Users' Access	1051.65	16	65.7281025	9.40	0.0000		
Interaction Effects	2065.46	144	14.3434831	2.05	0.0000		
Residual	9310.99	1331	6.99548611				
Total	35696.9681	1503	23.7504778				

*p<0.05 (p-value)

Table 5.26 shows that security and privacy and price of Internet users' access have significant mean difference in explaining the variations in customers' satisfaction. The inclusion of the interaction effect of security and privacy and price of Internet users' access in the model accounted for 73.92% variation in customers' satisfaction. Thus, the outcome of the analysis supports the Hypothesis that the interaction of security and privacy, and price of Internet users' access significantly influences customer satisfaction.

H3 - The overall interaction of ISPs' service performance and prices of Internet users' access significantly influence customer satisfaction.

Table 5.27 presents the analysis for Hypothesis H3.

Table 5.27: The Overall Interaction of ISPS' Service Performance and Prices of Internet Users' Access Significantly Influence Customer Satisfaction

H3 The overall interaction of ISPs' service performance and price of internet user's access significantly influence customer satisfaction						
Customer satisfaction	Coef.	p<0.05	95%CI	R-squared	F statistics (p<0.05)	
Prices of internet user's access	0.143	0.000	0.103-0.183	0.7744	2576.84 (0.000)	
ISPs' performance quality	0.273	0.000	0.257-0289			

*p<0.05 (p-value)

Table 5.27 shows that the overall interaction of ISPs' service performance and prices of Internet user's access is statistically associated with customers' satisfaction at p<0.05

and this can improve customers' satisfaction to 77.44%. Hence, this study supports the finding that the overall interaction of ISPs' service performance with prices of Internet users' access is significantly related to customer satisfaction.

(iv) Customer satisfaction is significantly related to behavioural intention

H4 – Customer satisfaction is significantly related to behavioural intention - This is related to research objective 3 which states: examine the extent of the relationship between customer satisfaction and behavioural intention. Table 5.28 presents the analysis for Hypothesis H4.

Table 5.28: Customer Satisfaction is Significantly Related to Behavioural Intention

Customer Satisfaction	Behavioural Intention		
	Coef.	p-value	95% CI
Customer Satisfaction	1.324	0.000	1.291-1.358
Model statistics	Model		
Prob>f	5833.88(0.000)		
R-squared	0.7953		
Adj R-squared	0.7951		

*p<0.05 (p-value)

Table 5.28 shows that customer satisfaction is significantly related to behavioural intention. This study accepts the hypothesis that increase in customer satisfaction will positively increase behavioural intention to 1.324 at significantly level of 0.05 at 95% confident interval of 1.290-1.358. Thus, the study concludes that there is a statistically significant association between customer satisfaction and behavioural intention of Internet users in the study area.

(v) ISPs' service performance is significantly related to behavioural intention via the mediation of customer satisfaction.

Testing the following hypotheses:

H5_a - Network quality is significantly related to behavioural intention via the mediation of customer satisfaction.

H5_b - Customer service and technical support is significantly related to behavioural intention via the mediation of customer satisfaction.

H5c - Information quality is significantly related to behavioural intention via the mediation of customer satisfaction.

H5a – Security and privacy are significantly related to behavioural intention via the mediation of customer satisfaction.

H5 – Overall ISPs’ service performance is significantly related to behavioural intention via the mediation of customer satisfaction.

H5 and its sub-hypothesis H5a – H5d are related to research objective 4 - Determine the Extent of the Relationship between ISPs’ Service Performance and Behavioural Intention of Customers via the Mediation of Customer Satisfaction in FCT Abuja, Nigeria.

H5a - Network quality is significantly related to behavioural intention via the mediation of customer satisfaction.

The analysis for Hypothesis H5a is presented in Table 5.29.

Table 5.29: Network Quality is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction

ISPS’ PERFORMANCE QUALITY	Behavioural Intention			Behavioural Intention		
	Coef.	P-value	95% CI	Coef.	p-value	95% CI
Network Quality						
Non-experience of Internet disconnection	0.351	0.000	0.162 – 0.540	0.010	0.898	-0.149 – 0.171
Downloading and uploading Internet speed	0.910	0.000	0.688 - 1.132	0.469	0.000	0.279 - 0.659
Internet speed regardless peak or off-peak hours	0.860	0.000	0.644 – 1.077	0.462	0.000	0.278 – 0.646
Components of Customer Satisfaction						
Choice of ISP was a wise one	-	-	-	0.558	0.000	0.357 – 0.758
Satisfied with ISP	-	-	-	0.557	0.000	0.323 – 0.791
Please to use Services by ISP	-	-	-	1.078	0.000	0.848 – 1.305
Services provided by ISP are excellent	-	-	-	1.233	0.000	1.018 – 1.448
Model statistics	Model 1			Model 2		
Prob>f	381.11 (0.000)			450.54 (0.000)		
R-squared	0.7541			0.8290		
Adj R-squared	0.7522			0.8272		

*p<0.05 (p-value)

Table 5.29 presents the analysis model that reveals that there is a significant association between downloading and uploading Internet speed (p<0.05) and Internet speed

regardless of peak or off-peak hours ($p < 0.05$) except non-experience of Internet disconnection ($p > 0.05$). It reveals that network quality was statistically significant with behavioural intention via customer satisfaction. Increase in network quality will positively affect behavioural intention of Internet user. Thus, this study accepts the hypothesis that network quality via customer satisfaction could significantly improve behavioural intention of Internet users to 82.9% in FCT Abuja, Nigeria. This analysis supports the Hypothesis that network quality is significantly related to behavioural intention via the mediation of customer satisfaction.

H5_b - Customer service and technical support is significantly related to behavioural intention via the mediation of customer satisfaction.

Table 5.30 presents the analysis for Hypothesis H5_b.

Table 5.30 : Customer Service and Technical Support are Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction

Customer Service and Technical Support, via the mediation of Customer Satisfaction	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of Customer Service and Technical support						
Customer service staff are knowledgeable.	1.179	0.000	0.913 – 1.445	0.453	0.000	0.259 – 0.646
Willing to respond to enquiries.	1.223	0.000	0.938 – 1.505	0.328	0.002	0.119 – 0.538
Prompt to resolve technical problems	2.282	0.000	2.052 – 2.514	0.396	0.000	0.205 - 0.587
Components of Customer Satisfaction						
Choice of ISP was wise one				0.722	0.000	0.528 – 0.918
Satisfied with ISP				0.811	0.000	0.573 – 1.049
Please to use Services by ISP				1.252	0.000	1.018 – 1.486
Services provided by ISP are excellent				1.565	0.000	1.348 – 1.783
Model statistics	Model 1			Model 2		
Prob>f	812.68 (0.000)			925.73 (0.000)		
R-squared	0.6191			0.8124		
Adj R-squared	0.6183			0.8116		

* $p < 0.05$ (p-value)

Table 5.30 reveals that customer service staff are knowledgeable; have willingness to respond to enquiries; and prompt to resolve technical problems, which are the components of customer service and technical support, and are statistically associated with behavioural intention. Further analysis indicates that statistical association between customer service and technical support via customer satisfaction was significant. (F-statistic=925.73, $p < 0.05$). Thus, the inclusion of customer satisfaction in the model shows that 81.2% variation in behavioural intention can be explained. Thus, this study accepts the hypothesis and concludes that customer service and technical support is statistically significant with behavioural intention via customer satisfaction.

H5_c - Information quality is significantly related to behavioural intention via the mediation of customer satisfaction.

Table 5.31 presents the analysis for Hypothesis H5_c.

Table 5.31: Information Quality is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction

Information Quality, via the Mediation of Customer Satisfaction	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of Information Quality						
Provides sufficient information	1.421	0.000	1.127 – 1.715	0.428	0.000	0.221 – 0.635
Provides up-to-date information	1.103	0.000	0.762 – 1.444	0.216	0.074	-0.201 – 0.453
Provides relevant information	1.782	0.000	1.459 – 2.105	0.426	0.000	0.196 – 0.656
Components of Customer Satisfaction						
Choice of ISP was a wise one	-	-	-	0.637	0.000	0.438 – 0.835
Satisfied with ISP	-	-	-	0.853	0.000	0.614 – 1.091
Pleased to use Services by ISP	-	-	-	1.310	0.000	1.079 – 1.542
Services provided by ISP are excellent	-	-	-	1.579	0.000	1.367 – 1.793
Model statistics						
Prob>f	Model 1			Model 2		
	721.22 (0.000)			920.61 (0.000)		
R-squared	0.5906			0.8116		
Adj R-squared	0.5898			0.8107		

* $p < 0.05$ (p-value)

Table 5.31 shows that the inclusion of customer satisfaction with information quality in the model resulted in an increase in variation from 59.06% to 81.16% in behavioural

intention of the respondents. It is also noted that there is a statistically significant association between sufficient information ($p < 0.05$), up-to-date information ($p < 0.05$) and relevant information ($p < 0.05$) with behavioural intention. Thus, the analysis supports the Hypothesis that information quality is significantly related to behavioural intention via the mediation of customer satisfaction.

H5_d – Security and privacy is significantly related to behavioural intention via the mediation of customer satisfaction.

Table 5.32 presents the analysis for hypothesis H5_d.

Table 5.32 : Security and Privacy is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction

Security and Privacy, via the Mediation of Customer Satisfaction	Behavioural Intention			Behavioural Intention		
	<i>Coef.</i>	<i>p-value</i>	<i>95% CI</i>	<i>Coef.</i>	<i>p-value</i>	<i>95% CI</i>
Components of Security and Privacy						
Personal information is protected	1.190	0.000	0.869 – 1.511	0.463	0.000	0.250 – 0.677
Financial information is protected	1.093	0.000	0.709 – 1.477	0.155	0.237	-0.101 – 0.412
Transactions are secured	1.805	0.000	1.442 – 2.169	0.376	0.003	0.126 – 0.625
Components of Customer Satisfaction						
Choice of ISP was a wise one	-	-	-	0.591	0.000	0.386 – 0.797
Satisfied with ISP	-	-	-	0.877	0.000	0.640 -1.115
Please to use Services by ISP	-	-	-	1.357	0.000	1.125 – 1.587
Services provided by ISP are excellent	-	-	-	1.626	0.000	1.414 – 1.839
Model statistics	Model 1			Model 2		
Prob>f	630.75 (0.000)			916.44 (0.000)		
R-squared	0.5578			0.8109		
Adj R-squared	0.5556			0.8100		

* $p < 0.05$ (p-value)

Table 5.32 reveals that protection of personal information, financial information and secured transactions are statistically associated with behavioural intention, although the inclusion of customer satisfaction in the model shows that protection of financial information was not statistically associated with behavioural intention. However, the model shows that the inclusion of customer satisfaction with security and privacy improved the model from 55.78% to 81.09% variation in behavioural intention of the

customer (f-statistic =916.44, $p < 0.05$). Thus, this study accepts the hypothesis that security and privacy is statistically significant with behavioural intention via the mediation of customer satisfaction.

H5 – Overall ISPs’ service performance is significantly related to behavioural intention via the mediation of customer satisfaction.

Table 5.33 presents the analysis for Hypothesis H5.

Table 5.33: Overall ISPS’ Service Performance is Significantly Related to Behavioural Intention via the Mediation of Customer Satisfaction

H5 Overall ISPs’ service performance and behavioural intention via customers satisfaction						
	Coef.	p<0.05	95%CI	R-squared	F statistics (p<0.05)	
Behavioural intention						
Customer satisfaction	0.905	0.000	0.839-0.971			
Overall ISPs’ service performance	0.175	0.000	0.150-0.189	0.8195	3406.93 (0.000)	

*p<0.05 (p-value)

Table 5.33 shows overall ISPs’ service performance and behavioural intention via customer satisfaction. The analysis shows that ISP service performance is significantly associated with behavioural intention via customer satisfaction. Thus, this study accepts the hypothesis at $p < 0.05$, which significantly indicates that ISP service performance via customers’ satisfaction was statistically significant in improving customers’ satisfaction to 81.95%. Hence, this study concludes and supports the findings that the overall ISPs’ service performance is significantly related to behavioural intention via the mediation of customer satisfaction.

(vi) The interaction of ISPs’ service performance and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Testing the following hypothesis:

H6a - The interaction of network quality and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

H6_b - The interaction of customer service and technical support and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

H6_c - The interaction of information quality and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

H6_d - The interaction of security and privacy, and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

H6 - The overall interaction of ISPs' service performance and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Hypothesis H6 and its sub-hypotheses H6_a – H6_d are related to research objective 5, which states: Determine the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and behavioural intention of customers in FCT Abuja, Nigeria.

H6_a - The interaction of network quality and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.34 presents the analysis for Hypothesis H6_a.

Table 5.34: The Interaction of Network Quality and Internet Bandwidth Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Components of Network Quality, Internet bandwidth via mediation of customers' satisfaction.	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of Network Quality						
Non-experience of Internet disconnection	0.0452	0.653	-0.152 – 0.242	-0.149	0.48	-0.299 - -0.001
Downloading and uploading Internet speed	0.399	0.001	0.159 – 0.639	0.163	0.076	-0.017 – 0.343
Internet speed regardless peak or off-peak hours	0.368	0.002	0.140 – 0.595	0.072	0.403	-0.097 – 0.243

Components of Internet bandwidth						
Internet bandwidth provided for surfing meet expectation	1.049	0.000	0.784 – 1.315	0.597	0.000	0.397 – 0.797
Internet bandwidth provided for streaming videos is adequate	0.776	0.000	0.492 – 1.061	0.411	0.000	0.197 – 0.625
Internet bandwidth provided for Downloading files is fast	0.453	0.002	0.162 – 0.743	0.262	0.019	0.436 – 0.479
Internet bandwidth for online transaction is sufficient	0.918	0.000	0.632 – 1.204	0.398	0.000	0.182 -0.613
Likely to switch to another ISP if speed advertised has shortfall somewhat	0.771	0.000	0.513 – 1.029	0.396	0.000	0.201 – 0.590
Components of Customer Satisfaction						
Choice of ISP was a wise one				1.174	0.000	1.014 – 1.334
Satisfied with ISP				0.352	0.002	0.131 - 0.571
Please to use Services by ISP				0.982	0.000	0.769 – 1.193
Services provided by ISP are excellent				0.23	0.000	0.718 – 1.127
Model Statistics		Model 1	Model 2			
Prob>f		501.27 (0.000)	702.30 (0.000)			
R-squared		0.7284	0.8499			
Adj R-squared		0.7270	0.8486			

*p<0.05 (p-value)

Table 5.34 shows two models. Model 1 indicates that network quality and Internet bandwidth can significantly influence behavioural intention, while Model 2 indicates that the inclusion of customer satisfaction in the model reduces the statistical influence of network quality but improves statistically the significant influence of Internet bandwidth on behavioural intention of the customers. However, the inclusion of customer satisfaction in Model 2 increases the variation in behavioural intention of the customers from 72.84% to 84.99%. Thus, this study concludes and supports the Hypothesis that the interaction of network quality and Internet bandwidth significantly has influence on behavioural intention via mediation of customer satisfaction.

H6b - The interaction of customer service and technical support and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.35 presents the analysis for Hypothesis H6b.

Table 5.35 : The Interaction of Customer Service and Technical Support and Internet Bandwidth Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Components of customer service and technical support, Internet bandwidth via mediation of customer satisfaction	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of customer service and technical support						
Customer service staff are knowledgeable.	0.787	0.000	0.607 – 0.968	0.474	0.000	0.310 – 0.638
Willing to respond to enquiries.	1.277	0.000	1.085 – 1.468	0.683	0.000	0.502 – 0.864
Prompt to resolve of technical problems	0.197	0.036	0.013 – 0.381	-0.108	0.204	-0.275 – 0.588
Components of Internet bandwidth						
Internet bandwidth for surfing meet expectation	0.761	0.000	0.548 – 0.974	0.592	0.000	0.404 – 0.781
Internet bandwidth for streaming videos is adequate	0.654	0.000	0.430 – 0.879	0.424	0.000	0.223 – 0.626
Internet bandwidth for downloading files is fast	0.497	0.000	0.268 – 0.729	0.318	0.003	0.111 – 0.524
Internet bandwidth for online transaction is sufficient	0.787	0.000	0.558 – 1.015	0.474	0.000	0.269 – 0.678
Likely to switch another ISP if speed advertised has shortfall somewhat	0.704	0.000	0.502 – 0.907	0.458	0.000	0.278 – 0.640
Components of Customer Satisfaction						
Choice of ISP was a wise one				0.706	0.000	0.541 – 0.873
Satisfied with ISP				0.227	0.032	0.019 – 0.425
Please to use Services by ISP				0.723	0.000	0.519 – 0.929
Services provided by ISP are excellent				0.849	0.000	0.655 – 1.044
Model statistics		Model 1		Model 2		
Prob>f	894.10 (0.000)		798.50 (0.000)			
R-squared	0.8271		0.8653			
Adj R-squared	0.8262		0.8643			

*p<0.05 (p-value)

Table 5.35 shows that Model 1 indicates that customer service and technical support and Internet bandwidth has statistically significant influence on behavioural intention and account for 82.71% variation. In Model 2, the inclusion of customer satisfaction in the model indicates that customer service and technical support and Internet bandwidth has statistical influence on behavioural intention as it accounts for 86.53% variation in behavioural intention. Thus, the outcome of the analysis supports the Hypothesis that the interaction of customer service and technical support with Internet bandwidth significantly influences behavioural intention via mediation of customer satisfaction.

H6c - The interaction of information quality and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.36 presents the analysis for Hypothesis H6c.

Table 5.36: The Interaction of Information Quality and Internet Bandwidth Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Components of Information quality, Internet bandwidth via mediation of customers' satisfaction.	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of Information Quality						
Provides sufficient information	0.655	0.000	0.4701- 0.840	0.364	0.000	0.191 – 0.538
Provides up-to-date information	0.820	0.000	0.608 – 1.032	0.483	0.000	0.285 – 0.683
Provides relevant information	0.902	0.000	0.698 – 1.106	0.491	0.000	0.298 – 0.684
Components of Internet bandwidth						
Internet bandwidth for surfing meet expectation	0.789	0.000	0.587 – 0.992	0.620	0.000	0.423 – 0.807
Internet bandwidth for streaming videos is adequate	0.635	0.000	0.421 – 0.849	0.442	0.001	0.243 – 0.641
Internet bandwidth for downloading files is fast	0.507	0.000	0.288 – 0.727	0.333	0.001	0.129 – 0.537
Internet bandwidth for online transaction is sufficient	0.657	0.000	0.439 – 0.875	0.435	0.000	0.233 – 0.637
Likely to switch another ISP if Internet speed advertised has shortfall somewhat	0.707	0.000	0.516 – 0.898	0.465	0.000	0.288 – 0.644
Components of Customer Satisfaction						
Choice of ISP was wise one				0.627	0.000	0.461 – 0.794
Satisfied with ISP				0.166	0.114	-0.040 – 0.372
Please to use Services by ISP				0.675	0.000	0.472 – 0.876
Services provided by ISP are excellent				0.699	0.000	0.508 – 0.892
Model Statistics						
	Model 1			Model 2		
Prob>f	1002.65 (0.0000)			822.82 (0.000)		
R-squared	0.8429			0.8688		
Adj R-squared	0.8421			0.8677		

*p<0.05 (p-value)

Table 5.36 shows that information quality and Internet bandwidth are statistically significant with behavioural intention with 84.29% variation, while inclusion of customer satisfaction in the model with interaction of information quality and Internet bandwidth increase the variation in behavioural intention significantly by 86.88%. Critical observation of the model shows that this study accepts the hypothesis and concludes that the interaction of information quality with Internet bandwidth significantly influence behavioural intention via customer satisfaction.

H6_d - The interaction of security and privacy, and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.37 presents the analysis for Hypothesis H6_d.

Table 5.37: The Interaction of Security and Privacy, and Internet Bandwidth Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Components of Security and privacy, Internet bandwidth via mediation of customer satisfaction.	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of Security and Privacy						
Personal information is protected	0.663	0.000	0.474 – 0.852	0.483	0.000	0.307 – 0.659
Financial information is protected	0.743	0.000	0.517 – 0.969	0.406	0.000	0.192 – 0.620
Transactions are secured	0.894	0.000	0.678 – 1.109	0.503	0.000	0.297 – 0.710
Components of Internet Bandwidth						
Internet bandwidth for surfing meet expectation	0.724	0.000	0.526 – 0.923	0.589	0.000	0.405 – 0.774
Internet bandwidth for streaming videos is adequate	0.662	0.000	0.452 – 0.871	0.461	0.000	0.265 – 0.658
Internet bandwidth for downloading files is fast	0.558	0.000	0.342 – 0.774	0.362	0.000	0.1602 – 0.563
Internet bandwidth for online transaction is sufficient	0.756	0.000	0.542 – 0.969	0.496	0.000	0.296 – 0.697
Likely to switch to another ISP if Internet speed advertised has shortfall somewhat	0.708	0.000	0.521 – 0.895	0.472	0.000	0.296 – 0.649
Components of Customer Satisfaction						
Choice of ISP was wise one				0.488	0.000	0.317 – 0.659
Satisfied with ISP				0.178	0.085	-0.024 – 0.382
Please to use Services by ISP				0.674	0.000	0.475 – 0.872
Services provided by ISP are excellent				0.705	0.000	0.516 – 0.895
Model Statistics						
Prob>f	Model 1			Model 2		
	1052.40 (0.000)			843.23 (0.000)		
R-squared	0.8492			0.8716		
Adj R-squared	0.8484			0.8705		

*p<0.05 (p-value)

Table 5.37 shows that security and privacy and Internet bandwidth are statistically significant with behavioural intention with 84.92% variation, while inclusion of customer satisfaction in the model with interaction of security and privacy and Internet bandwidth increase the variation in behavioural intention significantly to 87.16%. Critical observation of the model shows that this study accepts the hypothesis and concludes that the interaction of security and privacy, and Internet bandwidth significantly influence behavioural intention via customer satisfaction.

H6 - The overall interaction of ISPs' service performance and Internet bandwidth significantly influence behavioural intention via the mediation of customer satisfaction.

Table 5.38 presents the analysis for Hypothesis H6.

Table 5.38: The Interaction of Overall ISPs' Service Performance and Internet Bandwidth Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

H6 The overall interaction of ISPs' service performance and Internet bandwidth significantly influence behavioural intention via the mediation of customer satisfaction						
Behavioural Intention	Coef.	p<0.05	95%CI	R-squared	F statistics (p<0.05)	
Customers Satisfaction	0.477	0.000	0.410-0.543	0.8323	3734.03 (0.000)	
Internet bandwidth	0.262	0.000	0.241-0.284			

***p<0.05 (p-value)**

Table 5.38 shows that the overall interaction of ISPs' service performance and Internet bandwidth significantly influence behavioural intention via the mediation of customer satisfaction. The analysis reveals that ISPs' service performance and Internet bandwidth could significantly improve behavioural intention via customer satisfaction to 83.23% at p<0.05. Thus, this study accepts the hypothesis that the overall interaction of ISPs' service performance and Internet bandwidth are statistically associated with behavioural intention via customer satisfaction. Hence, this study supports the findings that the interaction of the overall ISPs' service performance and Internet bandwidth significantly influence behavioural intention via the mediation of customer satisfaction.

(vii) The interaction of ISPs' service performance and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction

Testing the following hypothesis:

H7_a - The interaction of network quality and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

H7_b - The interaction of customer service and technical support and price of Internet users' access significantly influence behavioural intention via mediation of customers' satisfaction.

H7_c - The interaction of information quality and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

H7_d - The interaction of security and privacy, and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

H7 - The overall interaction of ISPs' service performance and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Hypothesis H7 and its sub-hypotheses H7_a – H7_d are related to research objective 5, which states: Determine the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and behavioural intention of customers in FCT Abuja, Nigeria.

H7_a - The interaction of network quality and prices of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.39 presents the analysis for Hypothesis H7_a.

Table 5.39: The Interaction of Network Quality and Price of Internet Users' Access Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Component of network quality, price of Internet users' access, via mediation of customers' satisfaction.	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of network quality						
Non experience Internet disconnection	0.375	0.000	0.194 – 0.557	0.025	0.747	-0.127 – 0.177
Downloading and uploading Internet speed	1.017	0.000	0.804 – 1.229	0.5101	0.000	0.330 – 0.690
Internet speed regardless peak or off-peak hours	1.119	0.000	0.921 – 1.317	0.513	0.000	0.344 – 0.682

Components of price of Internet users' access						
Reasonable Prices	0.749	0.000	0.529 – 0.969	0.322	0.001	0.138 – 0.507
Competitive Prices	0.513	0.000	0.260 – 0.767	0.331	0.002	0.122 – 0.539
Various Prices Offers	0.963	0.000	0.721 – 1.205	0.392	0.000	0.187 – 0.597
Likely to switch to another ISP if prices for services are higher	0.906	0.000	0.673 – 1.138	0.521	0.000	0.327 – 0.716
Components of Customer Satisfaction						
Choice of ISP was a wise one				0.550	0.000	0.372 – 0.727
Satisfied with ISP				0.403	0.000	0.179 – 1.264
Please to use Services by ISP				1.048	0.000	0.833 – 1.264
Services provided by ISP are excellent				1.185	0.000	0.982 – 1.389
Model Statistics		Model 1	Model 2			
Prob>f		704.87 (0.000)	730.37 (0.000)			
R-squared		0.7673	0.8434			
Adj R-squared		0.7663	0.8422			

*p<0.05 (p-value)

Table 5.39 shows two models. Model 1 indicates that network quality and prices of Internet users' access can significantly influence behavioural intention, while Model 2 indicates that the inclusion of customer satisfaction in the model reduces the statistical influence of network quality but improves the statistically significant influence and prices of Internet users' access on behavioural intention of the customers. However, the inclusion of customer satisfaction in Model 2 increases the variation in behavioural intention of the customer from 76.73% to 84.34%. Thus, this study concludes and supports the Hypothesis that the interaction of network quality and prices of Internet users' access significantly influence behavioural intention via the mediation of customer satisfaction.

H7_b - The interaction of customer service and technical support and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.40 presents the analysis for Hypothesis H7_b.

Table 5.40: The Interaction of Customer Service and Technical Support, and Prices of Internet Users' Access Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Components of customer service and technical support, price of Internet users' access via mediation of customers' satisfaction	Behavioural Intention			Behavioural Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of customer service and technical support						
Customer service staff are knowledgeable.	0.260	0.034	0.194 – 0.302	0.147	0.126	-0.414 – 0.336
Willing to respond to enquiries.	0.151	0.257	-0.110 – 0.411	-0.018	0.859	-0.224 – 0.187
Prompt to resolve technical problems	1.946	0.000	1.745 – 2.147	0.485	0.000	0.303 – 0.668
Components of prices of Internet users' access						
Reasonable Prices	0.851	0.000	0.608 – 1.094	0.297	0.002	0.105 – 0.490
Competitive Prices	0.446	0.002	0.166 – 0.725	0.328	0.003	0.110 – 0.544
Various Prices Offers	0.571	0.000	0.300 – 0.842	0.237	0.029	0.024 – 0.451
Likely to switch to another ISP if prices for services are higher	0.941	0.000	0.681 – 1.201	0.525	0.000	0.321 – 0.729
Components of Customer Satisfaction						
Choice of ISP was a wise one				0.440	0.000	0.249 – 0.630
Satisfied with ISP				0.631	0.000	0.403 – 0.858
Please to use services by ISP				1.132	0.000	0.909 – 1.356
Services provided by ISP are excellent				1.421	0.000	1.213 – 1.629
Model statistics						
	Model 1			Model 2		
Prob>f	548.46 (0.000)			670.26 (0.000)		
R-squared	0.7196			0.8317		
Adj R-squared	0.7183			0.8305		

*p<0.05 (p-value)

Table 5.40 shows two models. Model 1 indicates that customer service and technical support and prices of Internet users' access can significantly influence behavioural intention, with less significant association of customer service staff's knowledge and willingness to respond to enquiries with behavioural intention. However, the inclusion of customer satisfaction in Model 2 increases the variation in behavioural intention of the customer from 71.96% to 83.17%. Thus, this study concludes and supports the findings that the interaction of customer service and technical support, and prices of Internet users' access significantly has influence on behavioural intention via the mediation of customer satisfaction.

H7_c - The interaction of information quality and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.41 presents the analysis for Hypothesis H7_c.

Table 5.41: The Interaction of Information Quality and Price of Internet Users' Access Significantly Influence Behavioural Intention via the Mediation of Customers' Satisfaction

Information quality, Components of Price of Internet users' Access via mediation of customers' satisfaction.	Behaviour Intention			Behaviour Intention		
	<i>Coef.</i>	<i>p-value</i>	<i>95% CI</i>	<i>Coef.</i>	<i>p-value</i>	<i>95% CI</i>
Components of Information Quality						
Provides sufficient information	0.700	0.000	0.425 – 0.975	0.196	0.056	-0.005 – 0.398
Provides up-to-date information	0.451	0.005	0.137 – 0.765	0.007	0.947	-0.221 – 0.236
Provides relevant information	0.972	0.000	0.668 – 1.275	0.178	0.117	-0.045 – 0.403
Components of Prices of Internet users' Access						
Reasonable Prices	0.743	0.000	0.479 – 1.007	0.256	0.009	0.063 – 0.449
Competitive Prices	0.534	0.0001	0.231 – 0.838	0.350	0.002	0.131 – 0.570
Various Prices Offers	0.547	0.000	0.252 – 0.843	0.225	0.041	0.009 – 0.441
Likely to switch to another ISP if prices for services are higher	0.835	0.000	0.552 – 1.119	0.497	0.000	0.291 – 0.703
Components of Customer Satisfaction						
Choice of ISP was wise one				0.4004	0.000	0.207 – 0.594
Satisfied with ISP				0.703	0.000	0.474 – 0.594
Please to use services by ISP				1.225	0.000	1.002 – 1.445
Services provided by ISP are excellent				1.522	0.000	1.312 – 1.723
Model statistics	Model 1			Model 2		
Prob>f	435.3 (0.000)			656.30 (0.000)		
R-squared	0.6706			0.8287		
Adj R-squared	0.6690			0.8275		

*p<0.05 (p-value)

Table 5.41 presents two models. Model 1 indicates that information quality and prices of Internet users' access can significantly influence behavioural intention, while the inclusion of customer satisfaction in Model 2 shows that no statistically significant influence of information quality but improve the statistically significant influence of prices of Internet users' access on behavioural intention of the customers. However, the inclusion of

customer satisfaction in Model 2 increases the variation in behavioural intention of the customer from 67.06% to 82.87%. Thus, this study concludes and supports the findings that the interaction information quality and prices of Internet users' access significantly influence behavioural intention via the mediation of customer satisfaction.

H7_d - The interaction of security and privacy, and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.42 presents the analysis for Hypothesis H7_d.

Table 5.42 : The Interaction of Security and Privacy, and Price of Internet Users' Access Significantly Influence Behavioural Intention via the Mediation of Customer Satisfaction

Security and privacy, price of Internet users' access via mediation of customers' satisfaction.	Behaviour Intention			Behaviour Intention		
	Coef.	p-value	95% CI	Coef.	p-value	95% CI
Components of Security and privacy						
Personal information is protected	0.592	0.000	0.300 – 0.884	0.266	0.011	0.061 – 0.452
Financial information is protected	0.342	0.056	-0.008 – 0.693	-0.068	0.590	-0.317 – 0.180
Transactions are secured	0.723	0.000	0.381 – 1.065	0.033	0.788	-0.211- 0.278
Components of price of Internet users' access						
Reasonable Prices	0.739	0.000	0.464 – 1.013	0.256	0.010	0.0619 -0.4514
Competitive Prices	0.600	0.000	0.288 – 0.913	0.355	0.002	0.135 – 0.575
Various Prices Offers	0.653	0.000	0.349 – 0.958	0.245	0.026	0.029 – 0.462
Keeps Records and Bills Accurate	0.987	0.000	0.696 – 1.279	0.528	0.000	0.322 – 0.734
Components of Customer Satisfaction						
Choice of wise ISP				0.432	0.000	0.233 – 0.630
Satisfied with ISP				0.706	0.000	0.478 – 0.934
Please to use Services by ISP				1.257	0.000	1.036 – 1.479
Services provided are excellent				1.546	0.000	1.342 – 1.750
Model statistics						
		Model 1			Model 2	
Prob>f		397.84 (0.000)			654.33 (0.000)	
R-squared		0.6505			0.8283	
Adj R-squared		0.6489			0.8270	

*p<0.05 (p-value)

Table 5.42 presents two models. Model 1 indicates that security and privacy, and prices of Internet users' access can significantly influence behavioural intention. The inclusion of customer satisfaction in Model 2 increases the variation in behavioural intention of the

customer from 65.05% to 82.83%. Thus, this study accepts and supports the hypothesis that the Interaction of security and privacy, and prices of Internet users' access significantly influence behavioural intention via the mediation of customer satisfaction.

H7 - The overall interaction of ISPs' service performance and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

Table 5.43 presents the analysis for Hypothesis H7.

Table 5.43: The Interaction of Overall ISPS' Service Performance and Price of Internet Users' Access Significantly Influence Behavioural Intention via Mediation of Customer Satisfaction

H7 The overall interaction of ISPs' service performance and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction						
Behavioural Intention	Coef.	p<0.05	95%CI	R-squared	F statistics (p<0.05)	
Prices of Internet users' access	0.399	0.000	0.366-0.432	0.8688	3310.71 (0.000)	
Customer satisfaction	0.477	0.000	0.410-0.543			
ISPs' performance quality	0.170	0.000	0.149-0.190			

*p<0.05 (p-value)

Table 5.43 shows that the overall interaction of ISPs' service performance and prices of Internet users' access are statistically associated with behavioural intention of Internet users at p<0.05 via customer satisfaction and this can significantly improve behavioural intention of Internet users positively to 86.88%. Hence, this study concludes and supports the findings that the overall interaction of ISPs' service performance and prices of Internet users' access significantly influence behavioural intention via the mediation of customer satisfaction.

5.3 QUALITATIVE ANALYSIS AND FINDINGS

The use of qualitative analysis in this research is to ensure that the outcome of the quantitative analysis is substantiated. Therefore, this research employed a semi-structured interview technique to obtain further information from this research sample on

the extent to which they think that Users' Internet Service Uptake is Influenced by Customers' Perceptions of Quality Internet Services. The interview session contributed to ensuring that all the necessary information on the research topic, aim as well as objectives, was sufficiently addressed. Face to face, the researcher carried out interviews and some interviews were conducted by phone. The audio interviews conducted were all recorded and afterwards transcribed. The transcripts for the semi-structured interviews for qualitative analysis are shown in Appendix IX.

Transcribe data was coded into initial codes, then themes and categories, using a coding frame. This is explained below. The questions asked of participants during the interview session are as shown in Appendix VI.

5.3.1 RESPONDENT PROFILES

The coding of all interview respondents so as to ensure confidentiality as stated in the research ethical requirement. Interview data was collected from the Internet users in FCT Abuja, Nigeria so as to gather further information on the variables highlighted in the research. The researcher obtains responses from 13 males and 12 females totalling 25 participants that were interviewed. The coding of the respondents interviewed is displayed in Appendix X Table 1.

5.3.2 ISPS' SERVICE PERFORMANCE

Data relating to ISPs' service performance were gathered from the participants during the semi-structured interviews. The qualitative analysis was done by extracting the raw data, carrying out initial coding, themes and main theme/category from the participants' opinions. The analysis of the semi-structured interviews with respect to ISPs' service performance that shows the thematic map is presented in Figure 5.1, while the coding frame is in Appendix X Table 2.

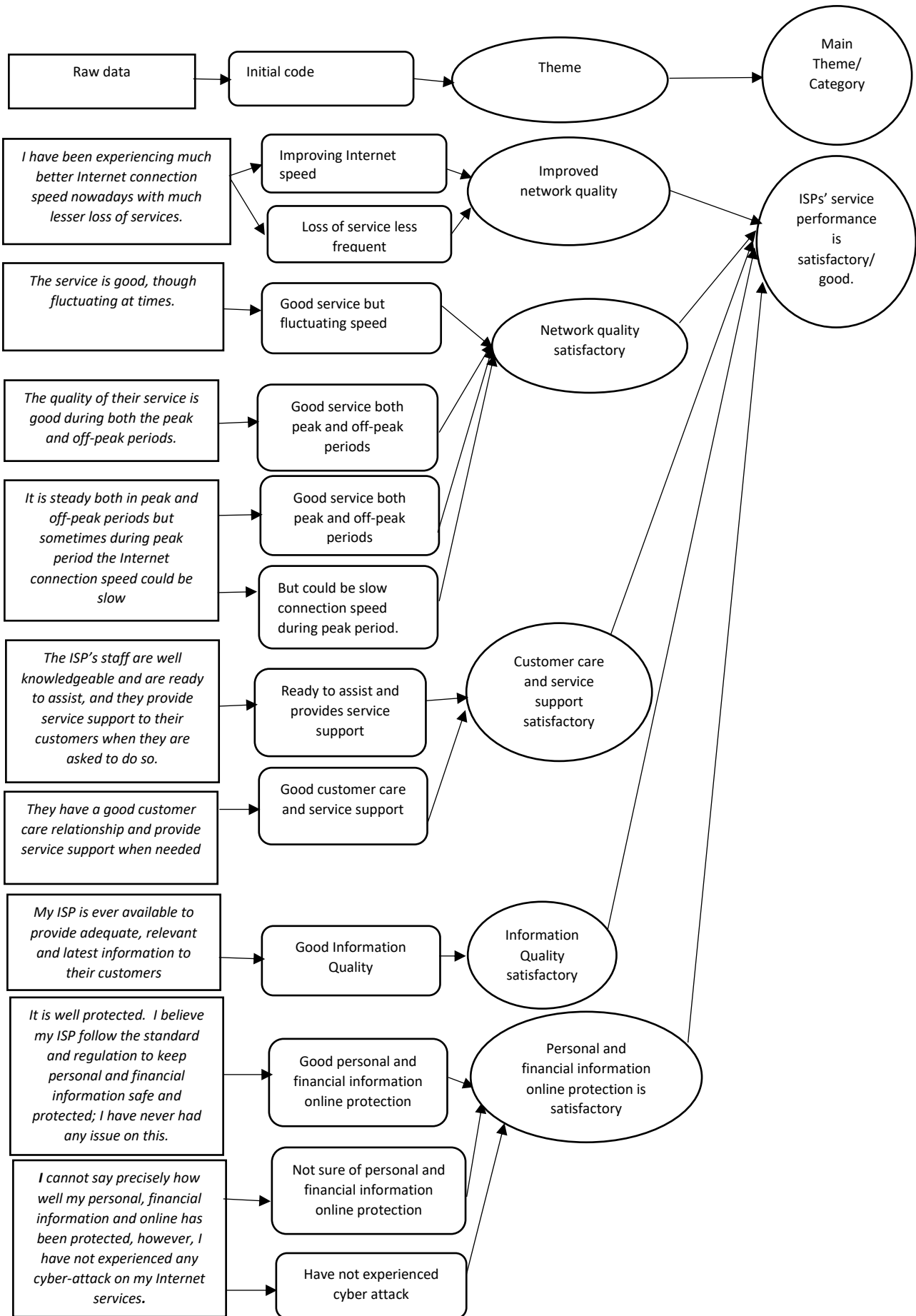


Figure 5.1: Thematic Map for the Analysis of Semi-Structured Interviews Relating to ISPs' Service Performance

From Figure 5.1, the participants (17) expressed their positive opinions as they described their experience with Internet connection speed and loss of services of their ISPs. Their data were collated with the main theme/category that “ISPs’ service performance is satisfactory” and with the themes “improved network quality” and “network quality satisfactory”. **Participants IR3, IR4, IR5, IR7, IR10, IR13 and IR15** state that they now experience better service with good Internet connection speed with less loss of services but it can still be better. For instance, one of the participants stated thus “*I have been experiencing much better Internet connection speed nowadays with much less loss of services*” (**Participant IR5**). **Participants IR1, IR2, IR6, IR16, IR17, IR18, IR19, IR21, IR22 and IR23** also gave similar opinions that the Internet connection is good and even excellent but state that at times it could be fluctuating. Thus, one of these participants states that “*The service is good, though fluctuating at times*” (**Participant IR16**). Some participants (6) shared their neutral view while the remaining participants (2) responded negatively.

Another pattern was the description made by the participants on the quality of Internet services of their ISPs during the peak and off-peak periods. Data were collated with the main theme/category “ISPs’ service performance is satisfactory” and with the theme “network quality satisfactory”, participants (15) show positive responses, while negative responses (9) and neutral view (1). **Participants IR1, IR10, IR13, IR15, IR16 and IR18**, are of the opinion that they experience good Internet services during both peak and off-peak periods. “*The quality of their service is good during both the peak and off-peak periods*” (**Participant IR10**). Also, **Participants IR3, IR4, IR7, IR8, IR19, IR21, IR22, IR23 and IR25** are of similar opinion that they obtain steady Internet services during both peak and off-peak periods but they mentioned that sometimes during peak period, the Internet connection speed could be slow. “*It is steady both in peak and off-peak periods but*

sometimes during peak period the Internet connection speed could be slow” (Participant IR3).

The interview participants also expressed their opinions by describing how knowledgeable their ISP’s staff are, and how willing they are to assist and provide service support on demand to customers. Data were collated with the main theme/category that “ISPs’ service performance is satisfactory” and with the theme “customer care and service support satisfactory”. The participants’ opinions on this show the positive responses (23), while the remaining participants (2) are of neutral views as none responded negatively.

Participants IR1, IR2, IR3, IR4, IR5, IR6, IR7, IR8, IR10, IR14, IR15, IR16, IR17, IR19, IR20, IR22 and IR23 are of the opinion that the ISPs’ staff are knowledgeable and able to handle the issues brought to the ISPs, they are willing to assist and provide support services when they are demanded by the customers. One of the participants stated that *“the ISP’s staff are knowledgeable and are ready to assist, and they provide service support to their customers when they are asked to do so (Participant IR14).* **Participants IR9, IR11, IR12, IR18, IR24 and IR25** give similar opinions as one of them states that *“They have a good customer care relationship and provide service support when needed” (Participant IR11).*

In describing the extent to which their ISPs possess the quality to provide adequate, relevant and up to date information to customers, data were collated with the main theme/category that “ISPs’ service performance is satisfactory” and with the theme that “information quality satisfactory”, a good number of the participants reveal their delight with their ISP’s level of information quality as the participants (24) **IR1, IR2, IR3, IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR12, IR13, IR14, IR15, IR16, IR17, IR18, IR19, IR20, IR21, IR22, IR23, IR24 and IR25** responded positively that their ISPs provide adequate, relevant and up to date information as only one of the participants (**Participant IR11**) responded negatively. One of the participants that responded positively stated that *“My*

ISP is ever available to provide adequate, relevant and latest information to their customers” (Participant IR5).

As regards describing how well their ISPs protect their personal and financial information as well as their on-line transactions, data were collated with the main theme/category “ISPs’ service performance is satisfactory” and with the theme “personal and financial information, and online protection is satisfactory”. The participants (15) **IR1, IR2, IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR11, IR14, IR15, IR16, IR20, IR21 and IR22**, show positive opinions by responding that their ISPs protect personal and financial information, and online transactions. **Participants IR2 and IR4** gave their opinion, stating that *“it is well protected”*. **Participant IR10** also stated that *“I believe my ISP follow the standard and regulation to keep personal and financial information safe and protected; I have never had any issue on this”*. The remaining participants (10) **IR3, IR12, IR13, IR17, IR18, IR19, IR21, IR23, IR24 and IR25** have neutral views on this as one of the participants stated thus, *“I cannot say precisely how well my personal, financial information and online has been protected, however, I have not experienced any cyber-attack on my Internet services” (Participant IR3).*

The summary of comments from the participants showing the numbers of effects is presented in Table 5.44. The number of positive comments is indicated by the ‘+’ effect whilst the total number of negative comments is reflected in the ‘-’ effect. Where comment that is either positive or negative is being made, this is indicated as neutral view.

Table 5.444: The Summary of Participants’ Comments in Respect of ISPs’ Service Performance indicating the numbers of effects

Initial code	Themes	Main theme /Category	Effects		
			+	-	Neutral views
Response to Question (i)					
Improving Internet speed	Improved network quality	ISP's service performance is satisfactory/ good	17	2	6
Loss of service less frequent	Improved network quality				
Good service but fluctuating speed	Network quality satisfactory				

Response to Question (ii)					
Good service both peak and off-peak periods	Network quality satisfactory	ISPs' service performance is satisfactory/good	15	9	1
Good service both peak and off-peak periods But could be slow connection speed during peak period					
Response to Question (iii)					
Ready to assist and provides service support	Customer care and service support satisfactory	ISPs' service performance is satisfactory/good	23	0	2
Good customer care and service support					
Response to Question (iv)					
Good Information Quality	Information Quality satisfactory	ISPs' service performance is satisfactory/good	24	1	0
Response to Question (v)					
Personal and Financial information online safe and protected	Personal and financial information online protection is satisfactory	ISPs' service performance is satisfactory/good	15	0	10
Not sure of personal and financial information protection Have not experienced cyber attack					

The comments or findings from the participants' opinions show the main theme/category as "ISPs' service performance is satisfactory" and with the themes improved network quality; network quality satisfactory; customer care and service support satisfactory; information quality satisfactory; personal and financial information online protection is satisfactory. It therefore suffices to say that customers' perception of quality Internet services by ISPs or ISPs' service performance can be examined by the above the main theme/category and themes. The examination of customers' perceptions will help to determine whether customers are satisfied with the service provided by ISPs or not.

5.3.3 CUSTOMER SATISFACTION

This section deals with the qualitative analysis of data relating to customer satisfaction with respect to ISPs' service performance. The analysis of the semi-structured interviews

with respect to customer satisfaction that shows the thematic map is presented in Figure 5.2, while the coding frame is in Appendix X Table 3.

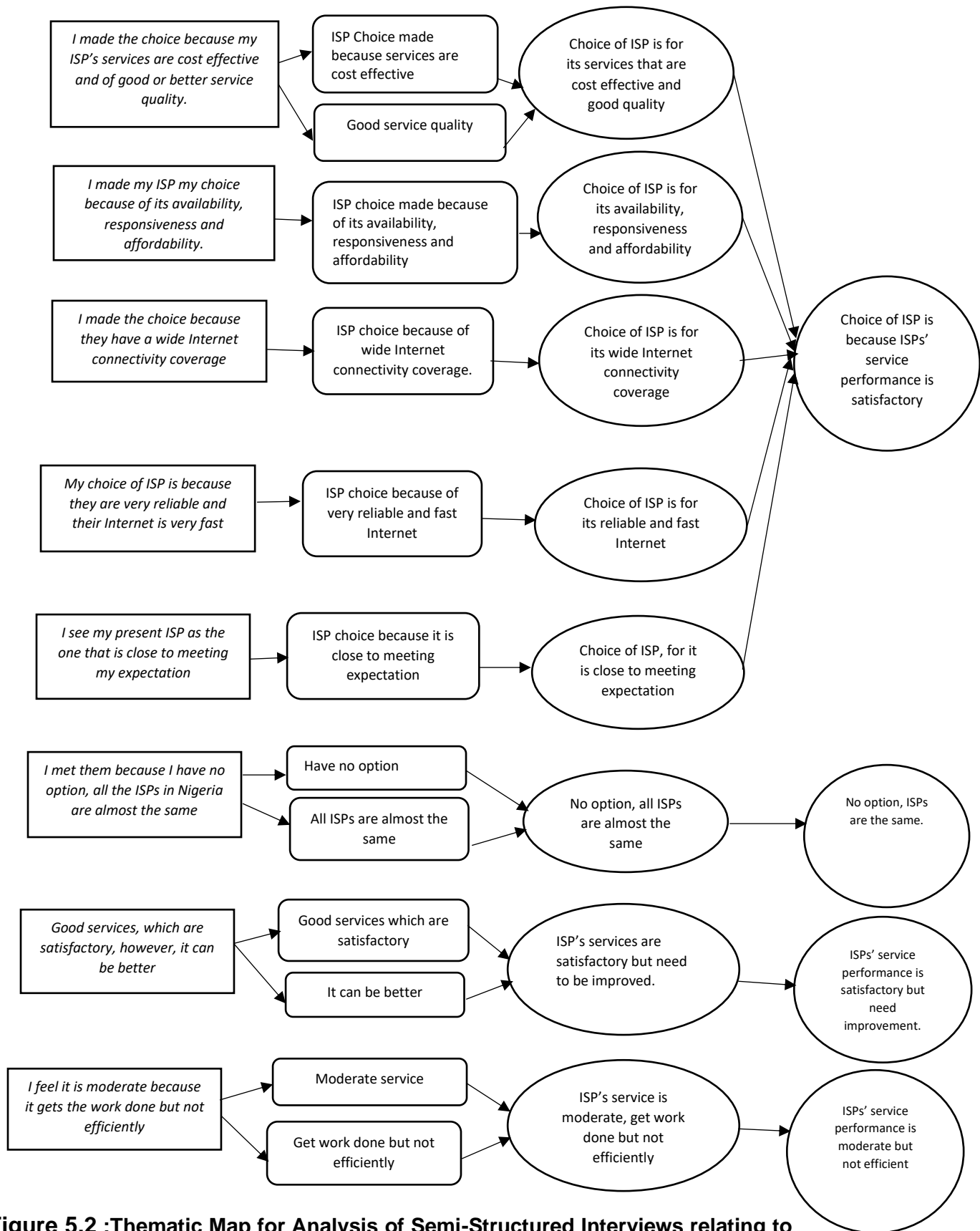


Figure 5.2 :Thematic Map for Analysis of Semi-Structured Interviews relating to customer satisfaction with respect to ISPs' Service Performance

The interview participants expressed their opinions by describing why they made their ISP their choice with respect to their perception on satisfaction of their ISPs' service performance. These are expressed with the main themes/category that "choice of ISP is because ISPs' service performance is satisfactory" and with the following themes that include choice of ISP is for its services that are cost effective and good quality; choice of ISP is for its availability, responsiveness and affordability; choice of ISP is for its wide Internet connectivity coverage; choice of ISP is for its reliable and fast Internet; and choice of ISP, for being close to meeting expectation. All the participants (24) except a participant (1) with a neutral view expressed their positive opinions with **Participants IR8, IR11, IR15, IR16, IR17, IR18, IR23 and IR24** who are of the opinion that they made their choice of ISP based on cost effectiveness and good quality service delivery. One of these participants states that *"I made the choice because my ISP's services are cost effective and of good or better service quality"* (**Participant IR16**). **Participants IR1, IR10, IR13, IR19, IR21 and IR25** have a similar opinion indicating that they subscribe to or chose ISP based on its availability, responsiveness and affordability. A particular participant stated thus: *"I made my ISP my choice because of its availability, responsiveness and affordability"* (**Participant IR1**). **Participants IR2, IR4, IR5 and IR20** made their choice of ISP based on a wide Internet connectivity coverage as one of the participants states thus *"I made the choice because they have a wide Internet connectivity coverage"* (**Participant IR2**). **Participants IR7 and IR9** with a similar opinion indicated that they made their choice of ISP based on reliable and fast Internet service, thus one of the participants stated that *"my choice of ISP is because they are very reliable and their Internet is very fast"* (**Participant 7**), while **Participants IR3, IR6, IR8 and IR14** reveal that they chose their ISPs because they seem close to meeting their expectations with quality service. A participant stated thus: *"I see my present ISP as the one that is close to meeting my expectation"* (**Participant IR14**). The only participant that is of a neutral

view stated that *“I met them because I have no option, all the ISPs in Nigeria are almost the same” (Participant IR22).*

The participants (20) also expressed their positive opinions by explaining how they feel about the services provided by their ISPs. Data were collated with the main theme/category as “ISPs’ service performance is satisfactory but needs improvement” and with the theme “ISP’s services are satisfactory but need to be improved”. **Participants IR1, IR2, IR3, IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR11, IR12, IR15, IR16, IR18, IR19, IR21, IR23, IR24 and IR25** made almost the same statements that their ISPs services are *“good services, which are satisfactory, however, it can be better” (Participant IR4),* while the remaining participants (5), that is **Participants IR13, IR14, IR17, IR20 and IR22** are of neutral opinions with the theme “ISP’s service is moderate, get work done but not efficiently” which is expressed with the main theme/category that “ISP’s service is moderate but not efficient. For instance, one of the participants states that *“I feel it is moderate because it gets the work done but not efficiently” (Participant IR13).*

The summary of the participants’ opinions indicating the numbers of effects is presented in Table 5.45.

Table 5.45: Summary of Analysis of Semi-Structured Interviews relating to customer satisfaction with respect to ISPs’ Service Performance

Initial code	Theme	Main theme/Category	Effects		
			+	-	Neutral views
Response to Question (i)					
ISP Choice made because services are cost effective Good service quality	Choice of ISP is for its services that are cost effective and good quality	Choice of ISP is because ISPs’ service performance is satisfactory	24	0	1
ISP choice made because of its availability, responsiveness and affordability	Choice of ISP is for its availability, responsiveness and affordability	Choice of ISP is because ISPs’ service performance is satisfactory			

ISP choice because of wide Internet connectivity coverage.	Choice of ISP is for its wide Internet connectivity coverage	Choice of ISP is because ISPs' service performance is satisfactory			
ISP choice because of very reliable and fast Internet	Choice of ISP is for its reliable and fast Internet	Choice of ISP is because ISPs' service performance is satisfactory			
ISP choice because it is close to meeting expectation	Choice of ISP, for it is close to meeting expectation	Choice of ISP is because ISPs' service performance is satisfactory			
Have no option All ISPs are almost the same	No option, all ISPs are almost the same	No option, ISPs are the same.			
Response to Question (ii)					
Good services which are satisfactory It can be better	ISP's services are satisfactory but need to be improved.	ISPs' service performance is satisfactory but need improvement.	20	0	5
Moderate service Get work done but not efficiently	ISP's service is moderate, get work done but not efficiently	ISPs' service performance is moderate but not efficient			

The perceptions of the participants in this section, shows that there is a correlation between ISPs' service performance with customers' satisfaction as the number of effects in the Table 5.45 above indicate customer satisfaction is influenced by ISPs' performance quality. It was also observed that apart from good quality Internet services, cost/price of accessing the Internet services or affordability was one of the factors that most of the participants considered in making their decisions for choice of ISP. This suggests that cost or price is a factor that moderates the perceptions of the customers so that even though quality service is delivered by their ISPs, they still consider price or affordability. However, this will be considered in subsequent sections.

5.3.4 BEHAVIOURAL INTENTION (CUSTOMER LOYALTY)

This section deals with the qualitative analysis of data relating to behavioural intention with respect to ISPs' service performance. The analysis of the semi-structured interviews with respect to behavioural intention that shows the thematic map is presented in Figures 5.3, 5.4 & 5.5 while the coding frame is in Appendix X Table 4.

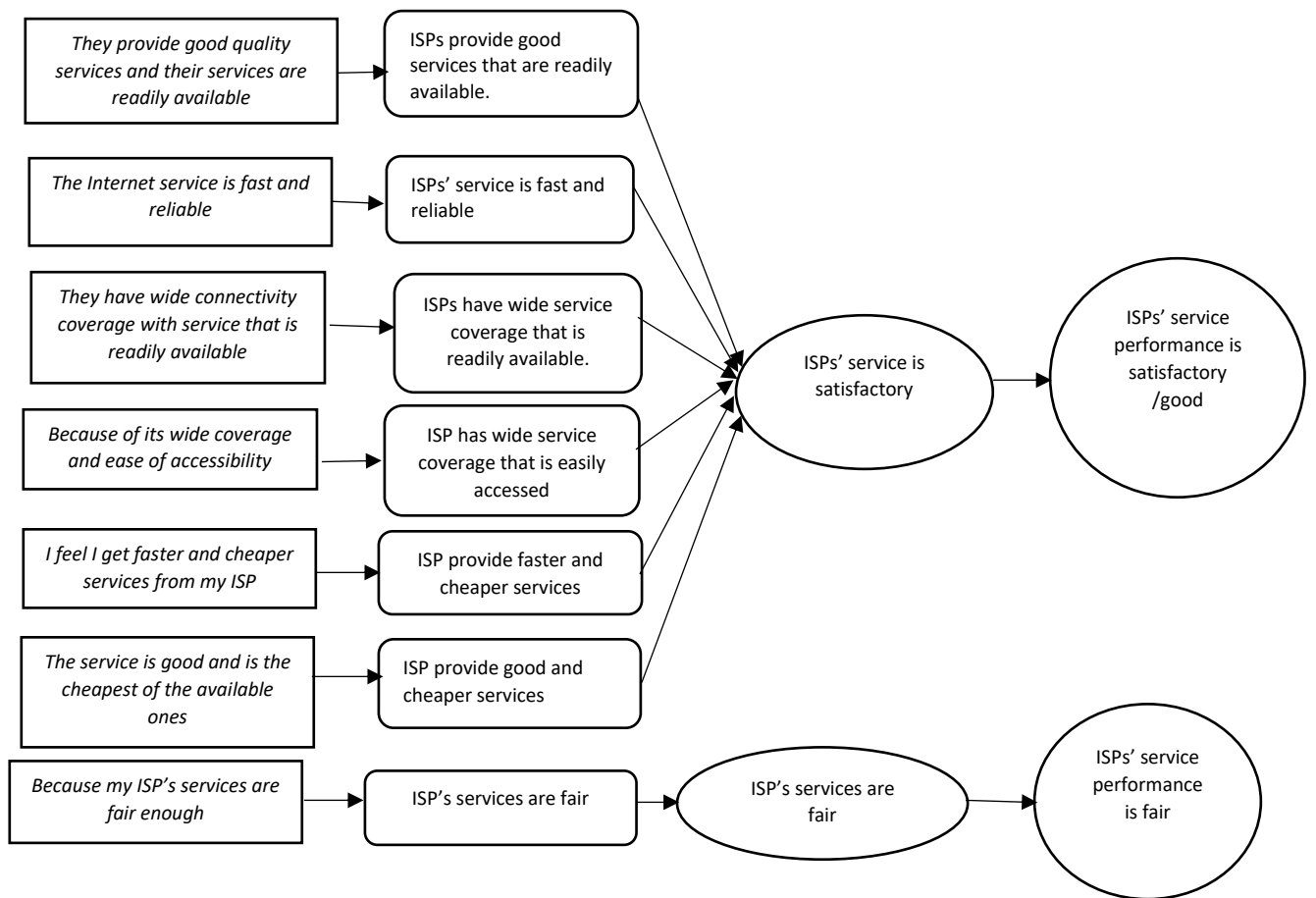


Figure 5.3: Thematic Map for Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs' Service Performance

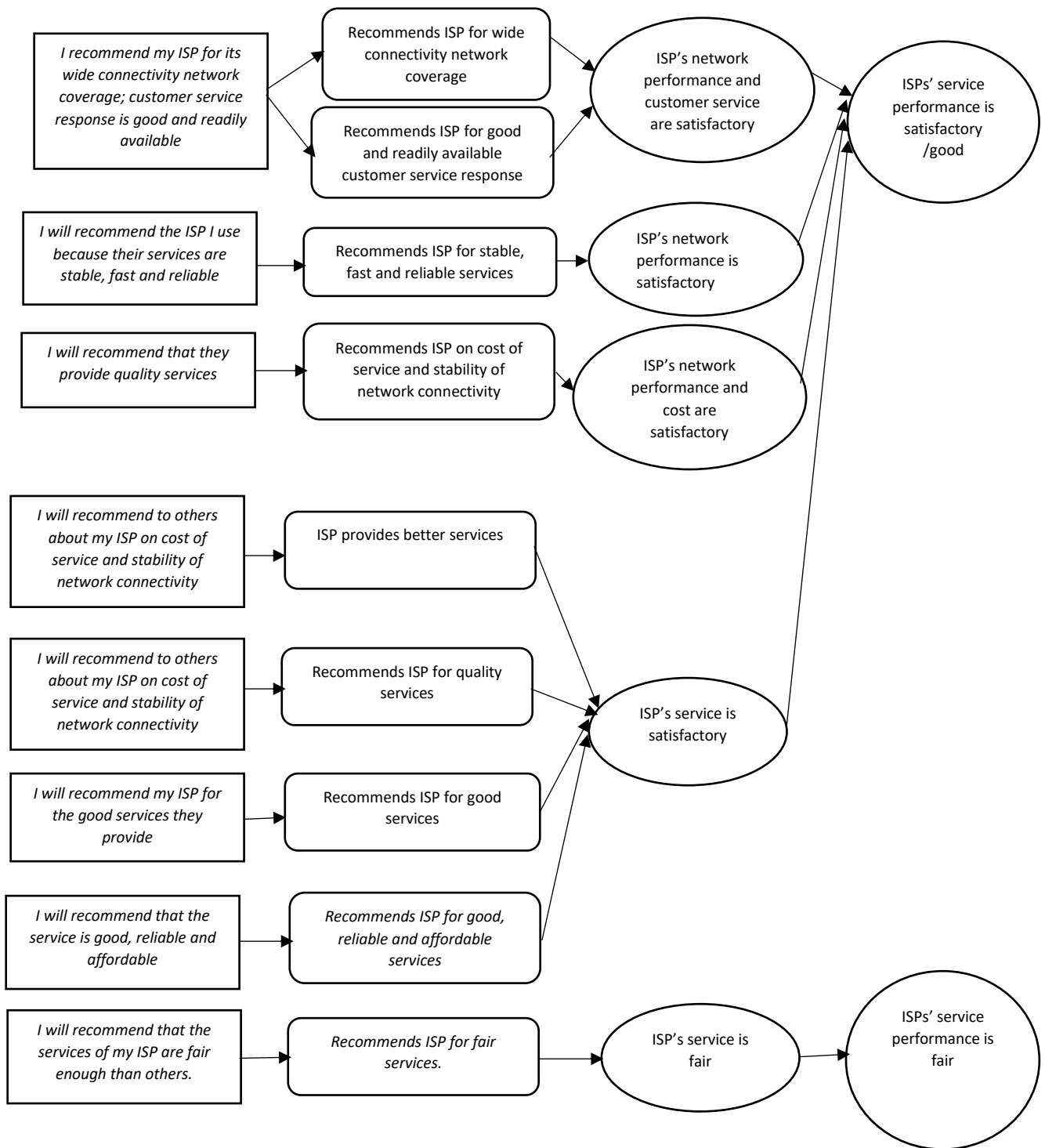


Figure 5.4:Thematic Map for Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs' Service Performance (Continued)

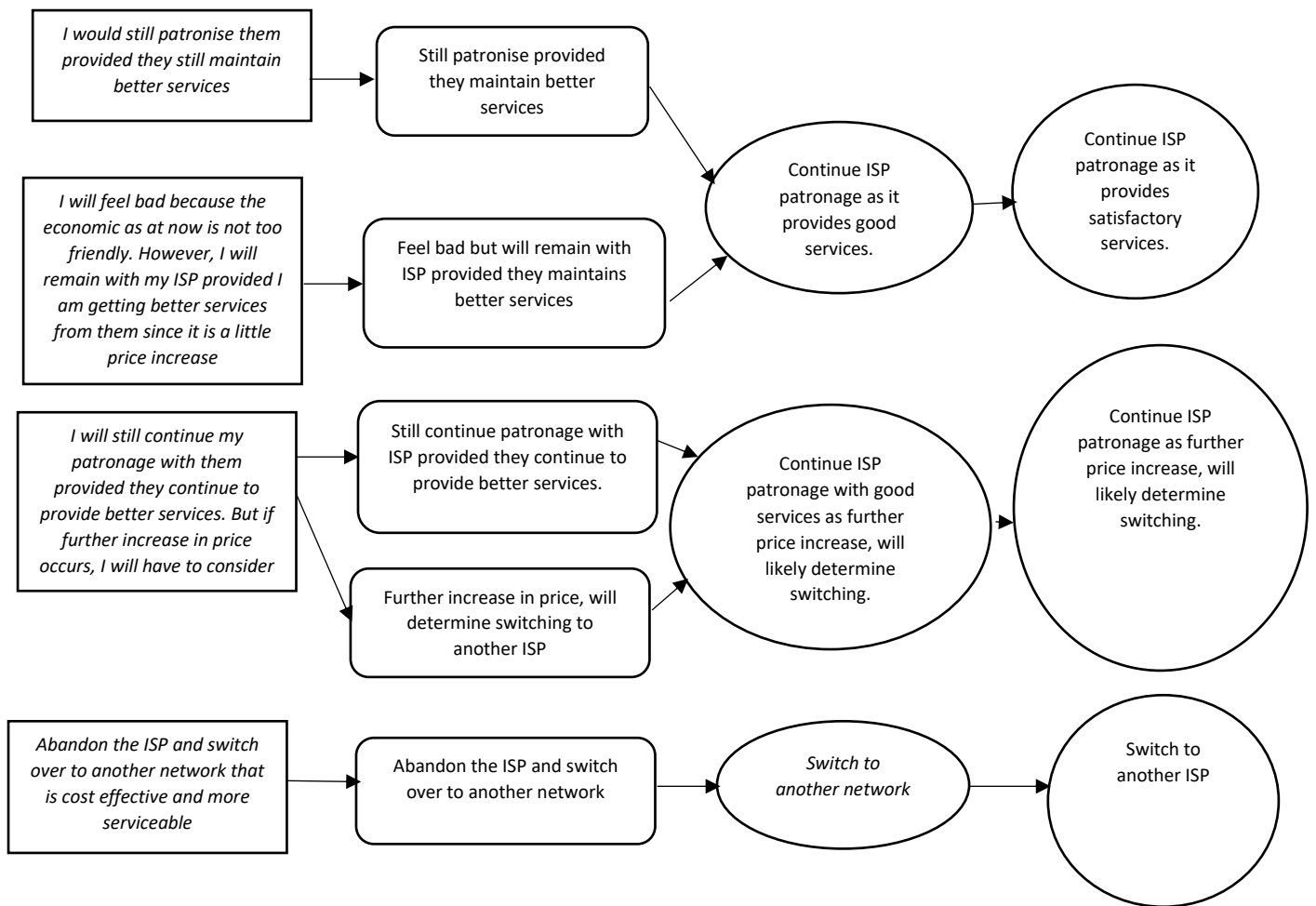


Figure 5.5: Thematic Map for Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs' Service Performance (Continued)

The opinions of participants were obtained to examine whether the participants will continue the use of their respective ISP as their best choice as well as to ascertain the reason of making such decision. Data were collated with the main theme/category "ISPs' service performance is satisfactory/good" and with the theme "ISPs' service is satisfactory". All the participants except two (i.e., 23) have positive views and the remaining two participants are of neutral opinions. Those with positive views reveal that they will continue to make use of their respective ISP as their best choice as a result of their good quality services; fast and reliable services; wide connectivity coverage, availability and cheaper services.

Participants IR3, IR5, IR6, IR8, IR9, IR10, IR11, IR12, IR13, IR15, IR16, R17, IR18 and IR21 state that their respective ISP provides good quality services which are readily available, as a participant specifically states *that “they provide good quality services and their services are readily available” (Participant IR5)*. Other **Participants IR7 and IR24** also gave similar opinions as one of them specifically states *“The Internet service is fast and reliable” (Participant IR7)*. **Participants IR2, IR4 and IR20** are of the opinion that their ISPs have wide connectivity coverage and services that are readily available. One of them stated that *“they have wide connectivity coverage with service that is readily available” (Participants IR2)*. **Participant IR19** states that ISPs are recommended as a result of wide network coverage and accessibility; as he said, *“because of its wide coverage and ease of accessibility” (Participant IR19)*. **Participant IR22 and IR23** provide similar opinions as **Participant IR22** states: *“I feel I get faster and cheaper services from my ISP,”* while another participant said *“The service is good and is the cheapest of the available ones (Participant IR25)*.

For the participants (2) that are of neutral views (i.e., **Participants IR1 and IR14**), they are of the opinion that the choice of their ISPs is because the services provided are fair as one of them states that *“because my ISP’s services are fair enough” (Participant IR14)*.

In another pattern to describe what the participants will recommend about their ISPs to others for patronage, data were collated with the main themes/categories that ISPs’ service performance is satisfactory/good; and ISPs’ service performance is fair. This was done with the following themes that include ISP’s network performance and customer service are satisfactory; ISP’s network performance is satisfactory; ISP’s network performance and cost are satisfactory; ISP’s service is satisfactory; and ISP’s service is fair respectively. Although two of the participants seem to be having neutral views, all the participants (25) still indicate positively that they will recommend their respective ISP to

others for patronage. They stated what they will say in recommending their respective ISP to potential customers. For instance, **Participants IR2, IR4, IR5, IR19, IR20 and IR22** gave similar opinions as one of the participants, who said *“I recommend my ISP for its wide connectivity network coverage, customer service response is good and readily available” (Participant IR4)*. **Participants IR1, IR3, IR9, IR23, IR24 and IR25** provided their own similar opinions as one of them said *“I will recommend the ISP I use because their services are stable, fast and reliable” (Participants IR3)*. Another two **Participants IR6 and IR21** gave their own opinions as one of them said *“I will recommend to others about my ISP on cost of service and stability of network connectivity” (Participant IR6)*. **Participants IR7 and IR17** gave their own similar views as one of them stated that *“My present ISP provides better services compared to other service providers I have used before” (Participants IR7)*. **Participants IR8 and IR10** had their own view, which one of them stated, that: *“I will recommend that they provide quality services” (Participant IR8)*. **Participants IR11, IR12, IR15 and IR16** state their similar opinions, as a participant stated that: *“I will recommend my ISP for the good services they provide” (Participant 15)* and another participant said, *“I will recommend that the service is good, reliable and affordable” (Participant 18)*.

The participants (2) that seem to be having neutral views but still said they will recommend their ISPs to others, that is **Participant IR13 and IR14**, at which one of them said *“I will recommend that the services of my ISP are fair enough than others” (Participant IR14)*.

As regards examining the reaction of the participants in the case of a little price increase by their ISPs, data were collated with the main themes/categories that include “continue ISP patronage as it provides satisfactory services”; “continue ISP patronage with satisfactory services as further price increase will likely determine switching”. The data were also collated with the themes “continue ISP patronage as it provides good services”;

“continue ISP patronage with good services as further price increase will likely determine switching”.

Thus, with respect to the continuous use of their ISP irrespective of a little price increase by ISP, most of the participants (18) responded positively that they will continue the patronage of their respective ISP though with condition that the ISP maintains good services. Other participants (7) responded negatively that they would likely not continue patronage with their respective ISP and will likely switch to another ISP. The participants that indicated that they will likely switch to another ISP in case of price increase include **Participants IR1, IR13, IR17, IR19, IR21, IR22 and IR24.**

Most of the participants who state they will still continue the patronage of their respective ISP provided they are providing satisfactory services with some specific opinions by the participants, which are stated as follow:

Participants IR3, IR4, IR7, IR8, IR9, IR11, IR12, IR15, IR16, IR18, IR20, IR23 and IR25, all have similar opinions as one of them stated that *“I would still patronise them provided they still maintain better services” (Participants IR3).*

Participants IR6 and IR10 also gave their own similar opinions as one of them said *“I will feel bad because the economy as at now is not too friendly. However, I will remain with my ISP provided I am getting better services from them since it is a little price increase” (Participant IR6).*

Likewise, **Participants IR2, IR5 and IR14** gave their own similar opinions as one of the participants said *“I will still continue my patronage with them provided they continue to provide better services. But if further increase in price occurs, I will have to consider whether to switch to another ISP with good services” (Participant IR5).*

The findings from the comments or opinions of participants during the interviews shows that when customers are satisfied with Internet services delivered by their ISPs based on ISPs' service performance, this will lead to customer loyalty or behavioural intention to

continue to use the service or patronise that particular ISP that is providing a better-quality service as considered by the participants or customers.

However, it is noteworthy to state that the participants in their comments which surround mentioning reasons relating to ISPs' service performance in making their decisions added that cheaper service is one of the reasons for the continuous use of their respective ISP as their best choice. This implies that apart from the significant influence of customers' perceptions of ISPs' service performance on customers' satisfaction, which leads to behavioural intention, the issue of price or cost of services can also hinder usage or make customers switch from one particular ISP to another.

The summary of the participants' opinions indicating the numbers of effects is presented in Table 5.46.

Table 5.46: Summary of Analysis of Semi-Structured Interviews relating to Behavioural Intention with respect to ISPs' Service Performance

Initial code	Theme	Main Theme/ Category	Effects		
			+	-	Neutral views
Response to Question (i)			23	0	2
ISPs provide good services that are readily available	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good			
ISPs' service is fast and reliable	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good			
ISPs have wide service coverage that is readily available.	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good			
ISP has wide service coverage that is easily accessed	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good			
ISP provide faster and cheaper services	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good			
ISP provide good and cheaper services	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good			
ISP's services are fair	ISP's services are fair	ISPs' service performance is fair			
Response to Question (ii)					
Recommends ISP for wide connectivity network coverage	ISP's network performance and customer service are satisfactory	ISPs' service performance is satisfactory/good	25	0	0

Recommends ISP for good and readily available customer service response					
Recommends ISP for stable, fast and reliable services	ISP's network performance is satisfactory	ISPs' service performance is satisfactory/good			
Recommends ISP on cost of service and stability of network connectivity	ISP's network performance and cost are satisfactory	ISPs' service performance is satisfactory/good			
ISP provides better services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good			
Recommends ISP for quality services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good			
Recommends ISP for good services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good			
Recommends ISP for good, reliable and affordable services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good			
Recommends ISP for fair services.	ISP's service is fair	ISPs' service performance is fair			
Response to Question (iii)					
Still patronise provided they maintain better services	Continue ISP patronage as it provides good services.	Continue ISP patronage as it provides satisfactory services.	18	7	0
<i>Feel bad but will remain with ISP provided they maintain better services</i>	Continue ISP patronage as it provides good services	Continue ISP patronage as it provides satisfactory services.			
Still continue patronage with ISP provided they continue to provide better services. Further increase in price, will determine switching to another ISP	Continue ISP patronage as it provides good services as further price increase, will likely determine switching.	Continue ISP patronage as it provides satisfactory services as further price increase, will likely determine switching.			
Abandon the ISP and switch over to another network	Switch to another network	Switch to another ISP			

5.3.5 INTERNET BANDWIDTH

This section deals with the qualitative analysis of data relating to Internet bandwidth with respect to ISPs' service performance. The analysis of the semi-structured interviews with respect to Internet bandwidth that shows the thematic map is presented in Figures 5.6, 5.7, 5.8, 5.9, 5.10 & 5.11 while the coding frame is in Appendix X Table 5.

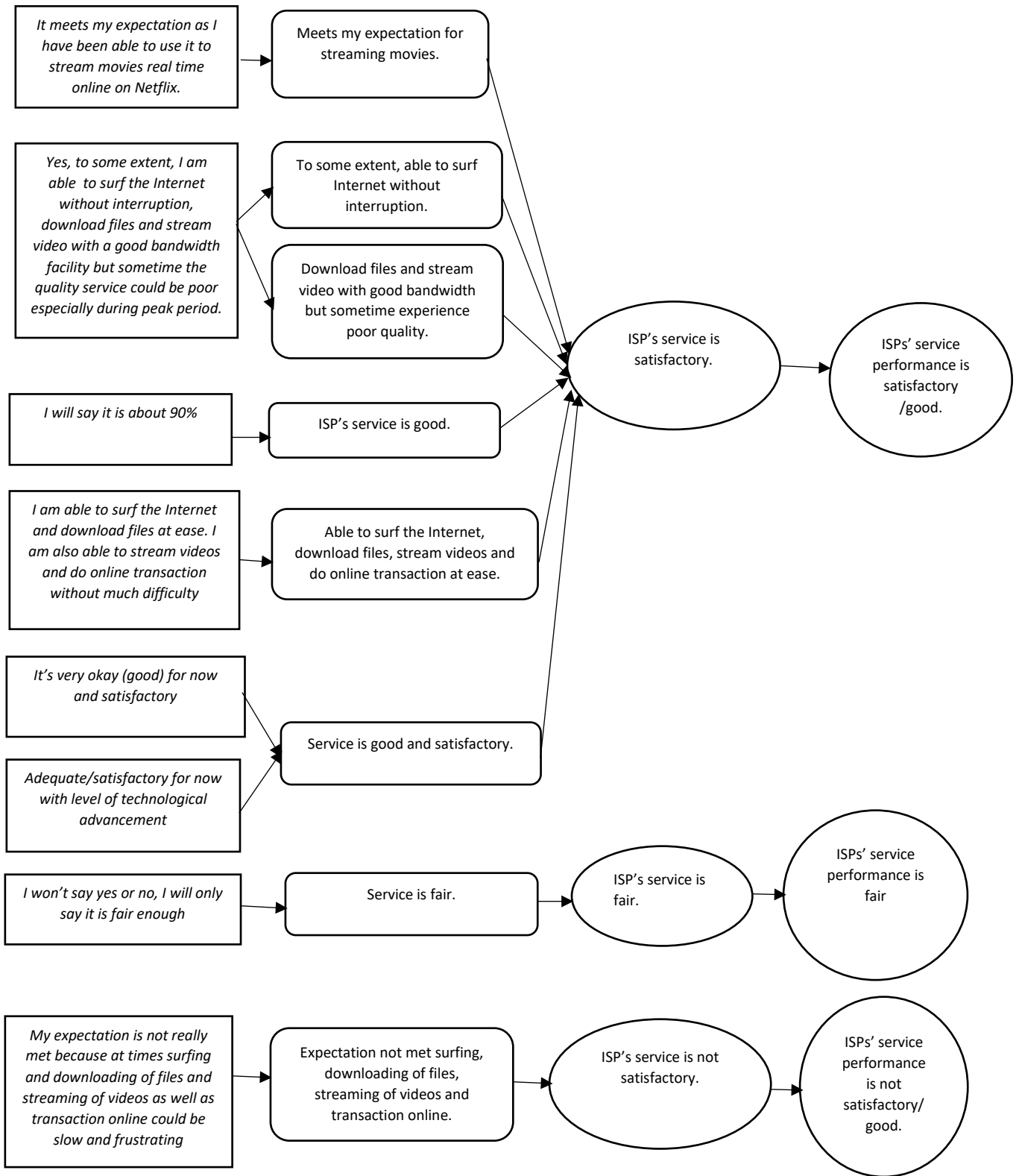


Figure 5.6 :Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance

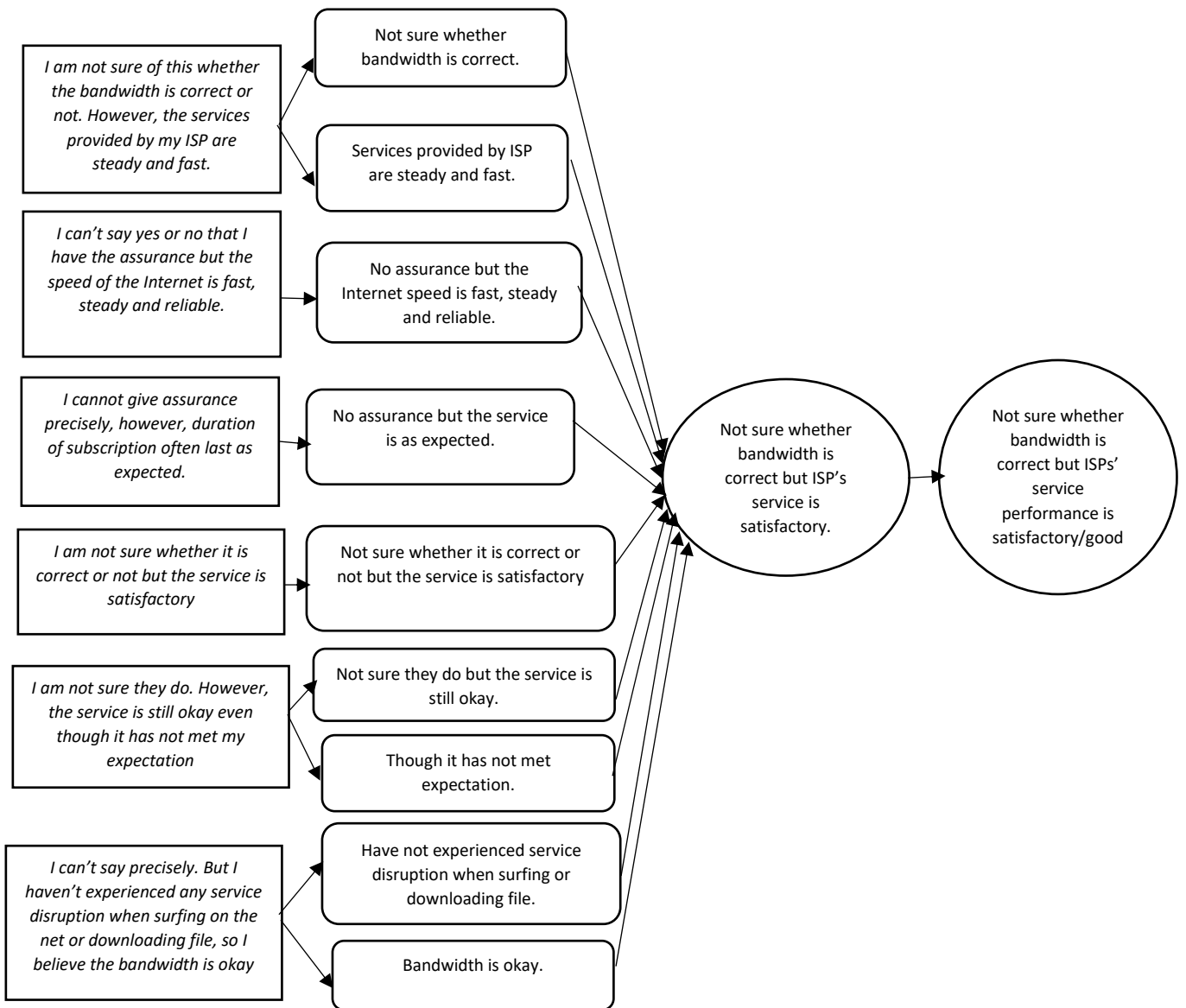


Figure 5.7: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance (Continued)

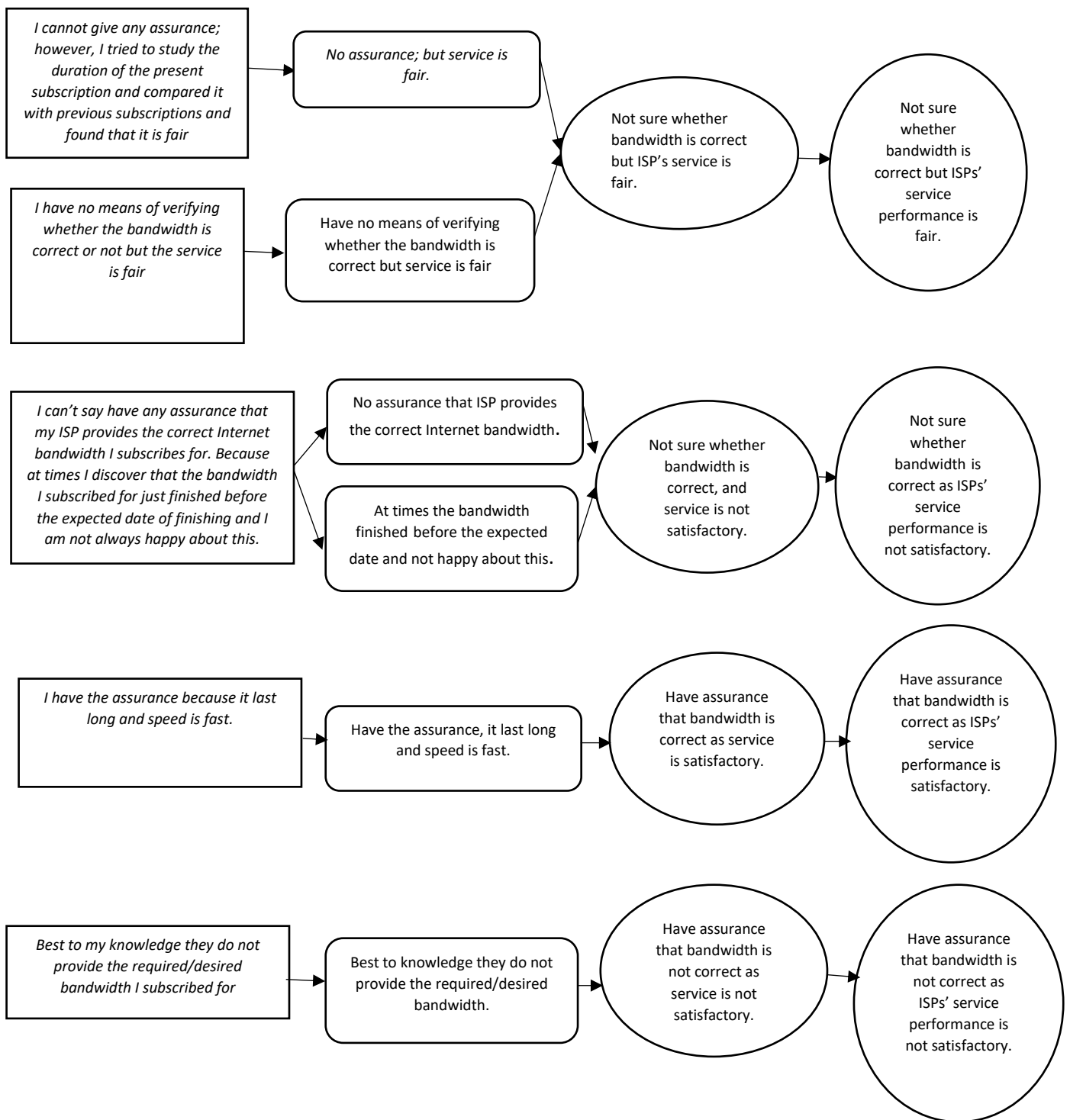


Figure 5.8: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance (Continued)

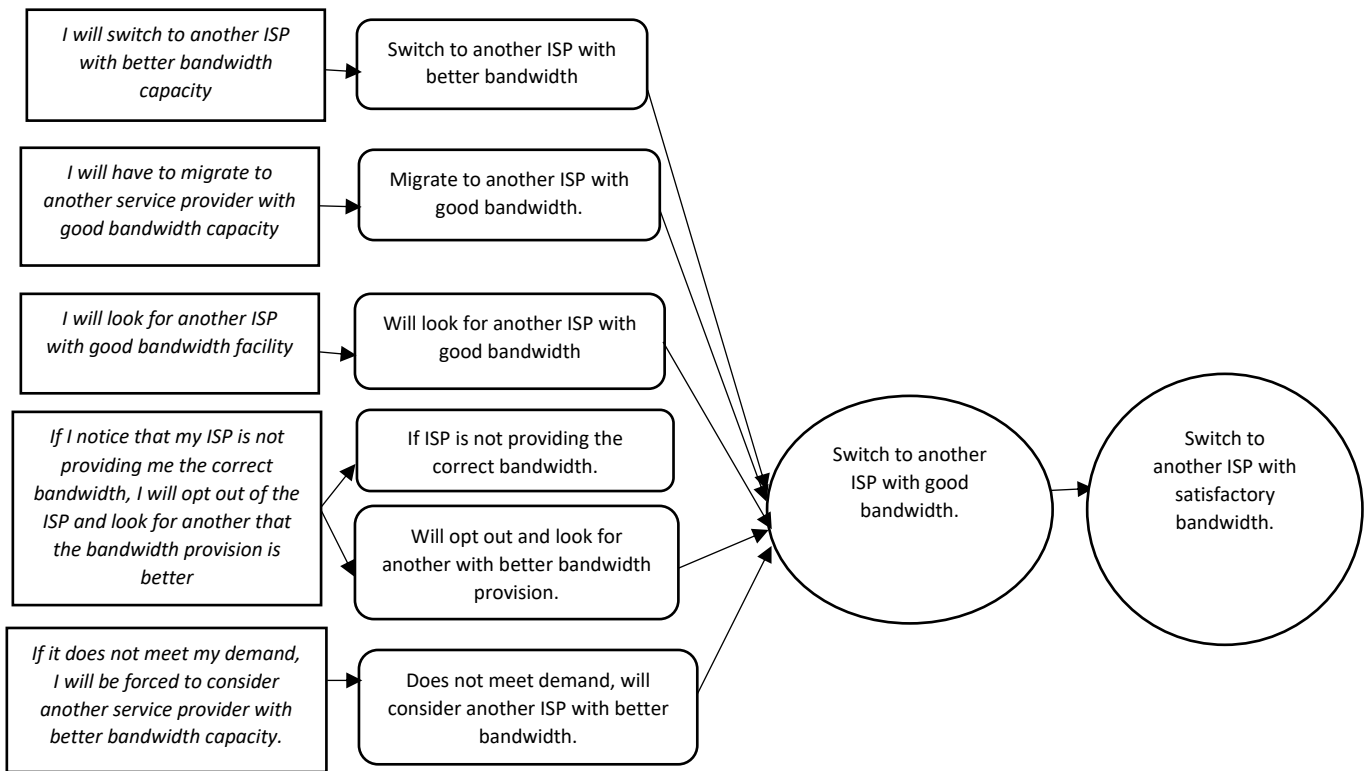


Figure 5.9: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance (Continued)

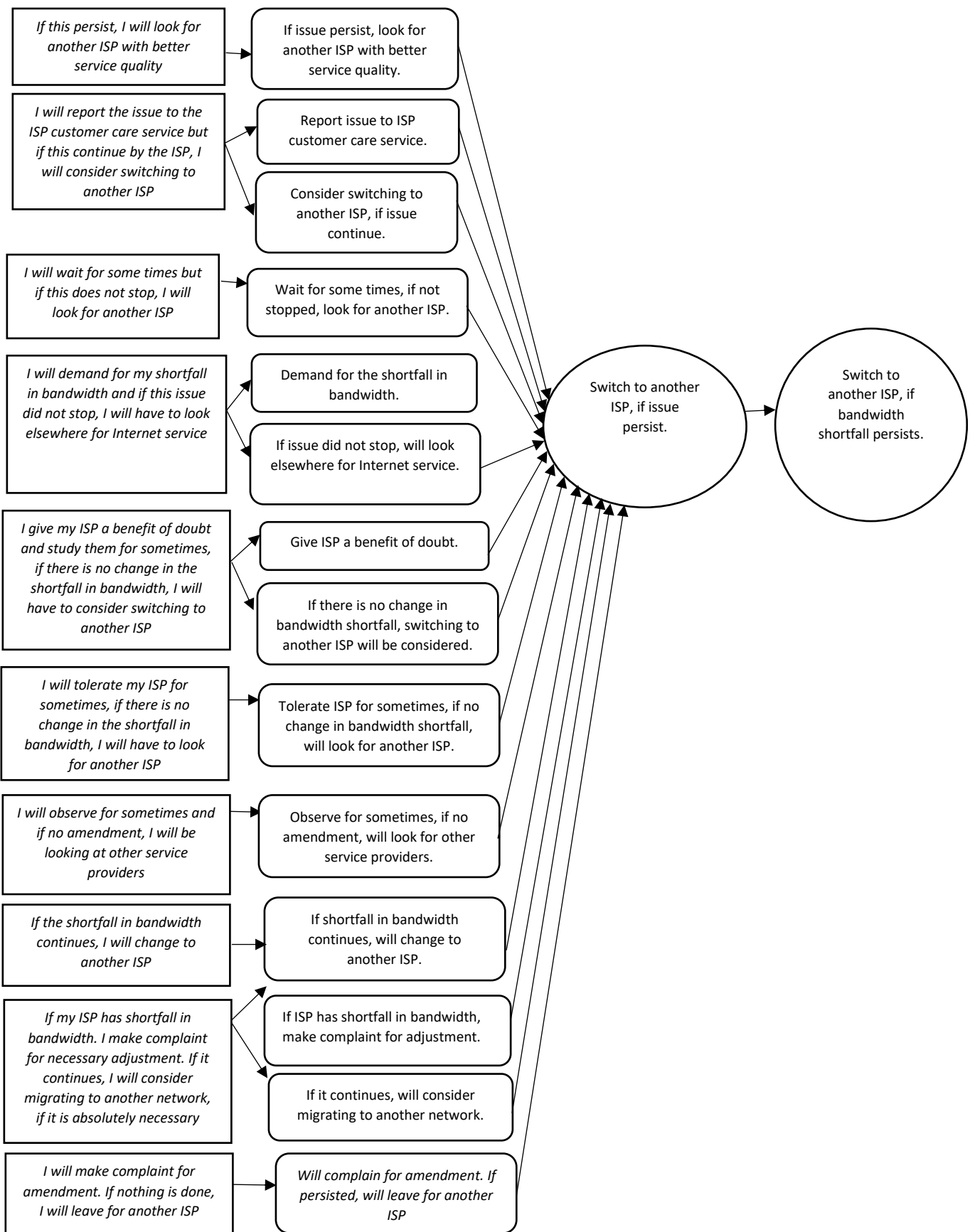


Figure 5.10 : Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance (Continued)

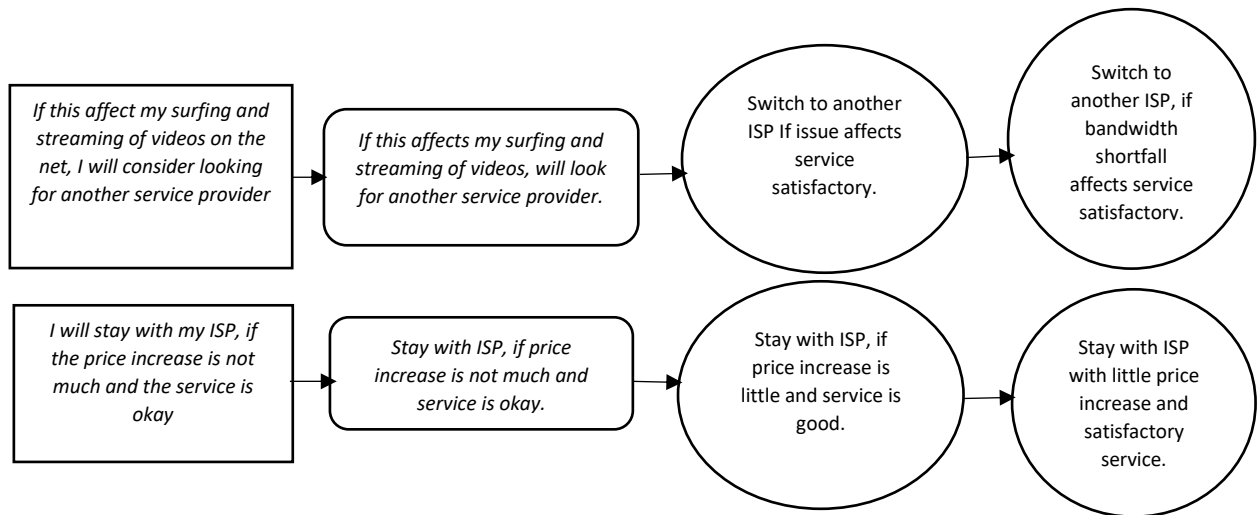


Figure 5.11: Thematic Map for Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs' Service Performance (Continued)

The opinions of participants were obtained to examine if the Internet bandwidth provided by their ISPs for surfing, downloading of files, streaming of videos and transaction online meet their expectation. Data were collated with the main theme/category “ISPs’ service performance is satisfactory/good” and with the theme “ISPs’ service is satisfactory”. The participants (15) indicated positively that the Internet bandwidth provided by their respective ISP for surfing, downloading and uploading of files, streaming of videos and transaction online, meet their expectations. Some participants (6) are of negative opinions while other participants (4) are with neutral views. The specific positive opinions by the participants are stated below:

Participants IR2 & IR4 gave a similar view, of which one of the participants stated that *“it meets my expectation as I have been able to use it to stream movies real time online on Netflix” (Participant IR2)*. **Participants IR7, IR9, IR12** are of similar opinion as a participant said that *“yes, to some extent, I am able surf the Internet without interruption, download files and stream video with a good bandwidth facility but sometimes the quality service could be poor especially during peak period” (Participant IR7)* as **Participant IR13** said *“I will say it is about 90%”*. **Participants IR5, IR8, IR15** gave their own similar opinion as one of them said, *“I am able to surf the Internet and download files at ease. I*

am also able to stream videos and do online transactions without much difficulty” (Participant IR15) while Participants IR16, IR18, IR19 gave a similar opinion, as a participant said that, “It’s very okay (good) for now and satisfactory” (Participant IR18).

Further analysis on the above pattern, came from **Participants IR10, IR21, IR23** who gave their own similar experience, of which one of them said, *“Adequate/satisfactory for now with level of technological advancement” (Participant IR21).* **Participants IR1, IR3, IR14, IR17** are of the opinion that the service is fair as one of them said, “I won’t say yes or no, I will only say it is fair enough (**Participant IR1**) while **Participants IR6, IR11, IR20, IR22, IR24, IR25** are of the opinion that the service does not meet their expectation. Thus, one of them said *“My expectation is not really met because at times surfing and downloading of files and streaming of videos as well as transactions online could be slow and frustrating” (Participant IR6).*

Considering the assurance that the participants have with respect to whether their ISP provides the correct Internet bandwidth; data were collated with the following main themes/categories that include ‘not sure whether bandwidth is correct, but ISPs’ service performance is satisfactory/good;’ ‘not sure whether bandwidth is correct, but ISPs’ service performance is fair;’ ‘not sure whether bandwidth is correct as ISPs’ service performance is not satisfactory;’ ‘have assurance and bandwidth is correct as ISPs’ service performance is satisfactory;’ ‘have assurance and bandwidth is not correct as ISPs’ service performance is not satisfactory.’ The main themes were used along with following themes that include ‘not sure whether bandwidth is correct but ISP’s service is satisfactory;’ ‘not sure whether bandwidth is correct but ISP’s service is fair;’ ‘not sure whether bandwidth is correct as service is not satisfactory;’ have assurance that bandwidth is correct as service is satisfactory;’ ‘have assurance that bandwidth is not correct as service is not satisfactory.’

The participants (17) do have the neutral views that they are not sure whether their ISPs provide correct Internet bandwidth or not. Out of these participants, **Participants IR2, IR3, IR7, IR8, IR9, IR13, IR15, IR16, IR19, IR25** said that, although they are not sure of whether their ISPs provide the correct Internet bandwidth, they do have steady and fast Internet services, which are satisfactory. Some of the participants, which include **Participants IR1, IR14, IR20, IR24**, also said they are not sure whether the bandwidth provided by their ISPs is correct but the services they obtain from their ISP are fair while other participants i.e., **Participants IR5, IR6, IR17** gave a similar view but they said the services they receive from their ISP are not satisfactory.

The participants (6) with positive views, which include **Participants IR4, IR10, IR12, IR18, IR21, IR23** said they do have the assurance that the Internet bandwidth provided by their ISPs is correct as the services they receive are satisfactory, while the remaining participants (2) with negative views i.e., **Participants IR11, IR22** said that they are sure that their ISPs do not provide the correct Internet bandwidth as the services they receive are not satisfactory.

Some specific statements made by the participants are as follows:

“I am not sure of this whether the bandwidth is correct or not. However, the services provided by my ISP are steady and fast” (Participant IR3).

“I can’t say yes or no that I have the assurance but the speed of the Internet is fast, steady and reliable” (Participant IR13).

“I cannot give any assurance; however, I tried to study the duration of the present subscription and compare it with previous subscriptions and found that it is fair” (Participant IR14).

“I cannot give assurance precisely, however, duration of subscription often lasts as expected” (Participant IR15).

“I haven’t experienced any service disruption when surfing on the net or downloading a file, so I believe the bandwidth is okay (Participant IR16).

“I am not sure whether it is correct or not but the service is satisfactory” (Participant IR19).

“I have no means of verifying whether the bandwidth is correct or not but service is satisfactory (Participant IR24).

“I am not sure they do. However, the service is still okay even though it has not met my expectation” (Participant IR25).

With respect to examining the reaction of participants if they notice a shortfall in bandwidth delivered by their ISPs, data were collated with the following main theme/categories that include switch to another ISP with satisfactory bandwidth; switch to another ISP, if bandwidth shortfall persists; switch to another ISP, if bandwidth shortfall affects service satisfaction; stay with ISP with little price increase and satisfactory service. The main themes were used along with following themes that include switch to another ISP with good bandwidth; switch to another ISP, if issue persists; switch to another ISP if issue affects satisfactory service; stay with ISP, if price increase is little and service is good.

The participants (21) do have negative views as some of the participants, that is **Participants IR1, IR13, IR14, IR17, IR18, IR19, IR20, IR21, IR25**, said that they will switch to another ISP with satisfactory bandwidth, while the **Participants IR3, IR4, IR5, IR6, IR7, IR8, IR11, IR12, IR22, IR23, IR24** said that they will switch to another ISP, if bandwidth shortfall persists. A participant i.e., **Participant IR10** is of the opinion that he will switch to another ISP, if bandwidth shortfall affects service satisfaction. The remaining participants (4), that is **Participants IR2, IR9, IR15, IR16**, have the positive views that they will stay with their ISP with little price increase and satisfactory services.

Some specific statements made by the participants are as follows:

“I will switch to another ISP with better bandwidth capacity” (Participants IR1).

“I will report the issue to the ISP customer care service but if this continues by the ISP, I will consider switching to another ISP” (Participant IR3).

“If this persists, I will look for another ISP with better service quality” (Participant IR4).

“I will wait for some time but if this does not stop, I will look for another ISP” (Participant IR5).

“I will demand for my shortfall in bandwidth and if this issue did not stop, I will have to look elsewhere for Internet service” (Participant IR6)

“I give my ISP a benefit of doubt and study them for some time, if there is no change in the shortfall in bandwidth, I will have to consider switching to another ISP” (Participant IR7)

“I will tolerate my ISP for some time, if there is no change in the shortfall in bandwidth, I will have to look for another ISP” (Participant IR8).

“If this affects my surfing and streaming of videos on the net, I will consider looking for another service provider” (Participant IR10).

“I will observe for some times and if no amendment, I will be looking at other service providers” (Participant IR11).

“If the shortfall in bandwidth continues, I will change to another ISP” (Participant IR12)

“I will look for another ISP and switch to them” (Participant IR14).

“If I notice that my ISP is not providing me the correct bandwidth, I will opt out of the ISP and look for another that the bandwidth provision is better” (Participant IR17)

“If it does not meet my demand, I will be forced to consider another service provider with better bandwidth capacity” (Participant IR18)

“I will have to migrate to another service provider with good bandwidth capacity” (Participant IR19)

“I will look for another ISP with good bandwidth facility” (Participant IR20)

“If my ISP continue this way, I have no other choice than to migrate to another ISP”

(Participant IR22).

“If my ISP has shortfall in bandwidth I make complaint for necessary adjustment. If it continues, I will consider migrating to another network, if it is absolutely necessary”

(Participant IR23).

“I will make complaint for amendment. If nothing is done, I will leave for another ISP”

(Participant IR24).

“I will look for alternative ISP” **(Participant IR25).**

I will stay with my ISP, if the price increase is not much and the service is okay

(Participant IR2).

The summary of the participants’ opinions indicating the numbers of effects is presented in Table 5.47.

Table 5.47: Summary of Analysis of Semi-Structured Interviews relating to Internet Bandwidth with respect to ISPs’ Service Performance

Data extract	Initial code	Theme	Main theme/ Category	Effects		
				+	-	Neutral View
Response to Question (i)				+	-	Neutral View
<i>It meets my expectation as I have been able to use it to stream movies real time online on Netflix.</i>	Meets my expectation for streaming movies.	ISP’s service is satisfactory.	ISPs’ service performance is satisfactory/good.	15	6	4
<i>Yes, to some extent, I am able surf the Internet without interruption, download files and stream video with a good bandwidth facility but sometime the quality service could be poor especially during peak period.</i>	To some extent, able to surf Internet without interruption. Download files and stream video with good bandwidth but sometime experience poor quality.					
<i>I will say it is about 90%.</i>	ISP’s service is good.					
<i>I am able to surf the Internet and download files at ease. I am also able to stream videos and do online transaction without much difficulty.</i>	Able to surf the Internet, download files, stream videos and do online transaction at ease.					

<i>It's very okay (good) for now and satisfactory.</i>	Service is good and satisfactory.					
<i>Adequate/satisfactory for now with level of technological advancement.</i>	Service is adequate and satisfactory.					
<i>I won't say yes or no, I will only say it is fair enough.</i>	Service is fair.	ISP's service is fair.				
<i>My expectation is not really met because at times surfing and downloading of files and streaming of videos as well as transaction online could be slow and frustrating.</i>	Expectation not met surfing, downloading of files, streaming of videos and transaction online.	ISP's service is not satisfactory.				
Response to Question (ii)						
<i>I am not sure of this whether the bandwidth is correct or not. However, the services provided by my ISP are steady and fast.</i>	Not sure whether bandwidth is correct. Services provided by ISP are steady and fast.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.	6	2	17
<i>I can't say yes or no that I have the assurance but the speed of the Internet is fast, steady and reliable.</i>	No assurance but the Internet speed is fast, steady and reliable.					
<i>I cannot give assurance precisely, however, duration of subscription often last as expected.</i>	No assurance but the service is as expected.					
<i>I am not sure whether it is correct or not but the service is satisfactory</i>	Not sure whether it is correct or not but the service is satisfactory.					
<i>I am not sure they do. However, the service is still okay even though it has not met my expectation.</i>	Not sure they do but the service is still okay. Though it has not met expectation.					
<i>I can't say precisely. But I haven't experienced any service disruption when surfing on the net or downloading file, so I believe the bandwidth is okay.</i>	Have not experienced service disruption when surfing or downloading file. Bandwidth is okay.					
<i>I cannot give any assurance; however, I tried to study the duration of the present subscription and compared it with previous subscriptions and found that it is fair.</i>	No assurance; but service is fair.	Not sure whether bandwidth is correct but ISP's service is fair.	Not sure whether bandwidth is correct but ISPs' service performance is fair.			
<i>I have no means of verifying whether the</i>	Have no means of verifying whether the bandwidth is					

<i>bandwidth is correct or not but the service is fair</i>	correct but service is fair					
<i>I can't say have any assurance that my ISP provides the correct Internet bandwidth I subscribes for. Because at times I discover that the bandwidth I subscribed for just finished before the expected date of finishing and I am not always happy about this.</i>	No assurance that ISP provides the correct Internet bandwidth. At times the bandwidth finished before the expected date and not happy about this.	Not sure whether bandwidth is correct, and service is not satisfactory.	Not sure whether bandwidth is correct as ISPs' service performance is not satisfactory.			
<i>I have the assurance because it last long and speed is fast.</i>	Have the assurance, it last long and speed is fast.	Have assurance that bandwidth is correct as service is satisfactory.	Have assurance that bandwidth is correct as ISPs' service performance is satisfactory.			
<i>Best to my knowledge they do not provide the required/desired bandwidth I subscribed for.</i>	Best to knowledge they do not provide the required/ desired bandwidth.	Have assurance that bandwidth is not correct as service is not satisfactory.	Have assurance that bandwidth is not correct as service is not satisfactory.			
Response to Question (iii)						
<i>I will switch to another ISP with better bandwidth capacity.</i>	Switch to another ISP with better bandwidth.	Switch to another ISP with good bandwidth.	Switch to another ISP with satisfactory bandwidth.	4	21	0
<i>I will have to migrate to another service provider with good bandwidth capacity.</i>	Migrate to another ISP with good bandwidth.					
<i>I will look for another ISP with good bandwidth facility.</i>	Will look for another ISP with good bandwidth					
<i>If I notice that my ISP is not providing me the correct bandwidth, I will opt out of the ISP and look for another that the bandwidth provision is better.</i>	If ISP is not providing the correct bandwidth. Will opt out and look for another with better bandwidth provision.					
<i>If it does not meet my demand, I will be forced to consider another service provider with better bandwidth capacity.</i>	Does not meet demand, will consider another ISP with better bandwidth					
<i>If this persists, I will look for another ISP with better service quality</i>	If issue persist, look for another ISP with better service quality.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.			
<i>I will report the issue to the ISP customer care service but if this continue</i>	Report issue to ISP customer care service.					

<i>by the ISP, I will consider switching to another ISP.</i>	Consider switching to another ISP, if issue continue.					
<i>I will wait for some times but if this does not stop, I will look for another ISP.</i>	Wait for some times, if not stopped, look for another ISP.					
<i>I will demand for my shortfall in bandwidth and if this issue did not stop, I will have to look elsewhere for Internet service.</i>	Demand for the shortfall in bandwidth. If issue did not stop, will look elsewhere for Internet service.					
<i>I give my ISP a benefit of doubt and study them for sometimes, if there is no change in the shortfall in bandwidth, I will have to consider switching to another ISP.</i>	Give ISP a benefit of doubt. If there is no change in bandwidth shortfall, switching to another ISP will be considered.					
<i>I will tolerate my ISP for sometimes, if there is no change in the shortfall in bandwidth, I will have to look for another ISP,</i>	Tolerate ISP for sometimes, if no change in bandwidth shortfall, will look for another ISP.					
<i>I will observe for sometimes and if no amendment, I will be looking at other service providers.</i>	Observe for sometimes, if no amendment, will look for other service providers.					
<i>If the shortfall in bandwidth continues, I will change to another ISP.</i>	If shortfall in bandwidth continues, will change to another ISP.					
<i>If my ISP has shortfall in bandwidth. I make complaint for necessary adjustment. If it continues, "I will consider migrating to another network, if it is absolutely necessary.</i>	If ISP has shortfall in bandwidth, make complaint for adjustment. If it continues, will consider migrating to another network.					
<i>I will make complaint for amendment. If nothing is done, I will leave for another ISP</i>	Will complain for amendment. If persisted, will leave for another ISP					
<i>If this affect my surfing and streaming of videos on the net, I will consider looking for another service provider</i>	If this affects my surfing and streaming of videos, will look for another service provider.	Switch to another ISP If issue affects service satisfactory.	Switch to another ISP, if bandwidth shortfall affects service satisfactory.			

<i>I will stay with my ISP, if the price increase is not much and the service is okay</i>	Stay with ISP, if price increase is not much and service is okay.	Stay with ISP, if price increase is little and service is good.	Stay with ISP with little price increase and satisfactory service.			
---	---	---	--	--	--	--

The findings from the opinions of participants during the interviews indicate the significance of Internet bandwidth as they relate to ISPs' service performance. It shows that Internet bandwidth is a factor that can moderate ISPs' service performance as customers can make decision of switching for better Internet bandwidth, if they are not currently getting the appropriate bandwidth. This implies that inadequate bandwidth can moderate ISPs' service performance that would influence customers' satisfaction and in turn affects customers' behavioural intention. For instance, if Internet bandwidth provision is not sufficient for the customers' basic requirements of surfing/browsing, downloading and uploading of files, and streaming of videos, this will influence customers' satisfaction and behavioural intention as well as affect affordability and limit Internet uptake. So those who want to obtain these basic services of surfing/browsing, downloading and uploading of files, and streaming of videos and enjoy steady or fast speed as well will be forced to pay more than normal to acquire better Internet bandwidth. Otherwise, those who could not pay more or afford the price for the basic services would be hindered from obtaining quality Internet bandwidth or quality Internet services, thereby limiting Internet service uptake.

5.3.6 PRICES OF INTERNET USERS' ACCESS

This section deals with the qualitative analysis of data relating to prices of Internet users' access with respect to ISPs' service performance. The analysis of the semi-structured interviews with respect to prices of Internet users' access that shows the thematic map is presented in Figures 5.12, 5.13 & 5.14 while the coding frame is in Appendix X Table 6.

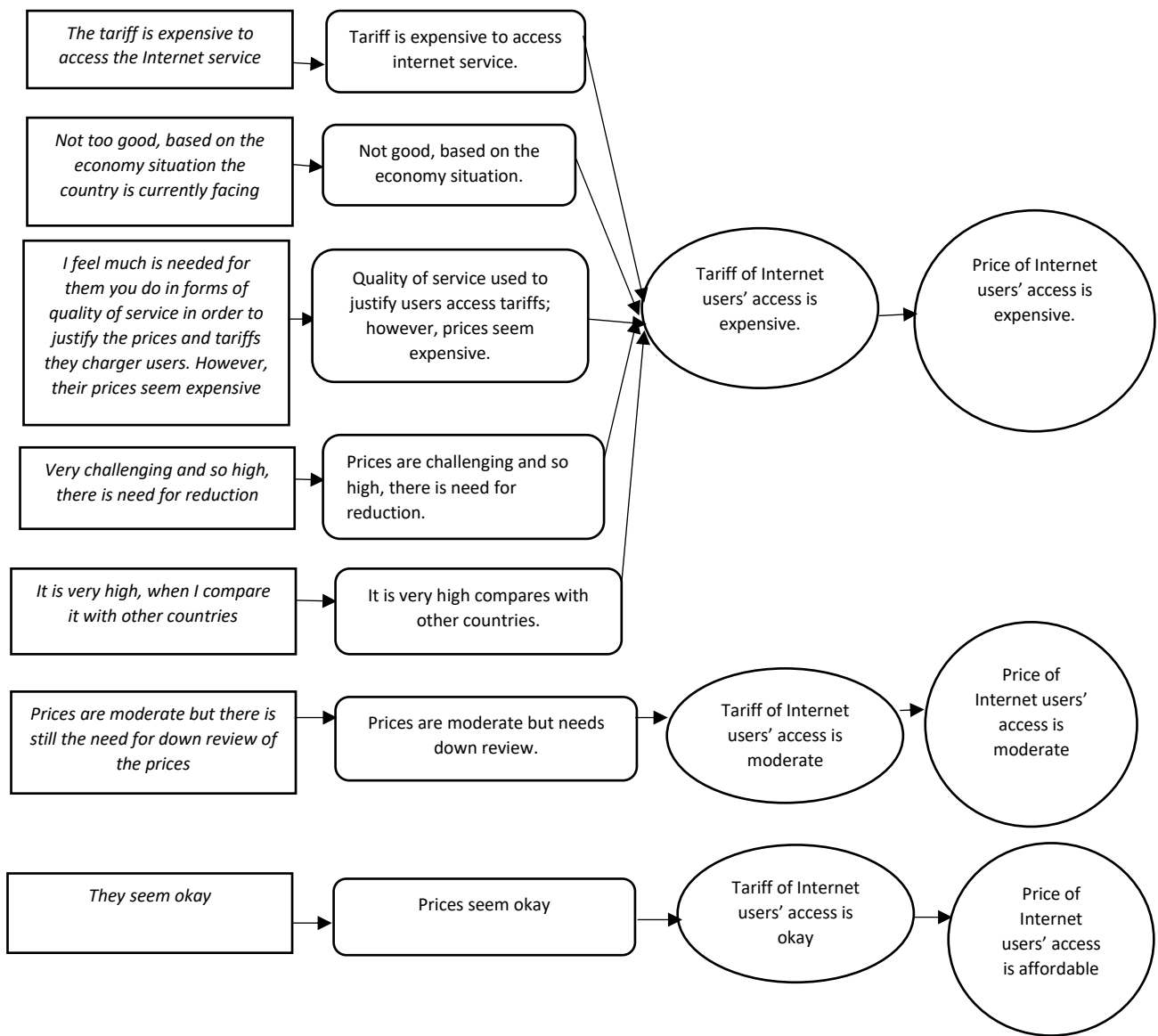


Figure 5.12: Thematic Map for Analysis of Semi-Structured Interviews relating to Prices of Internet Users' Access

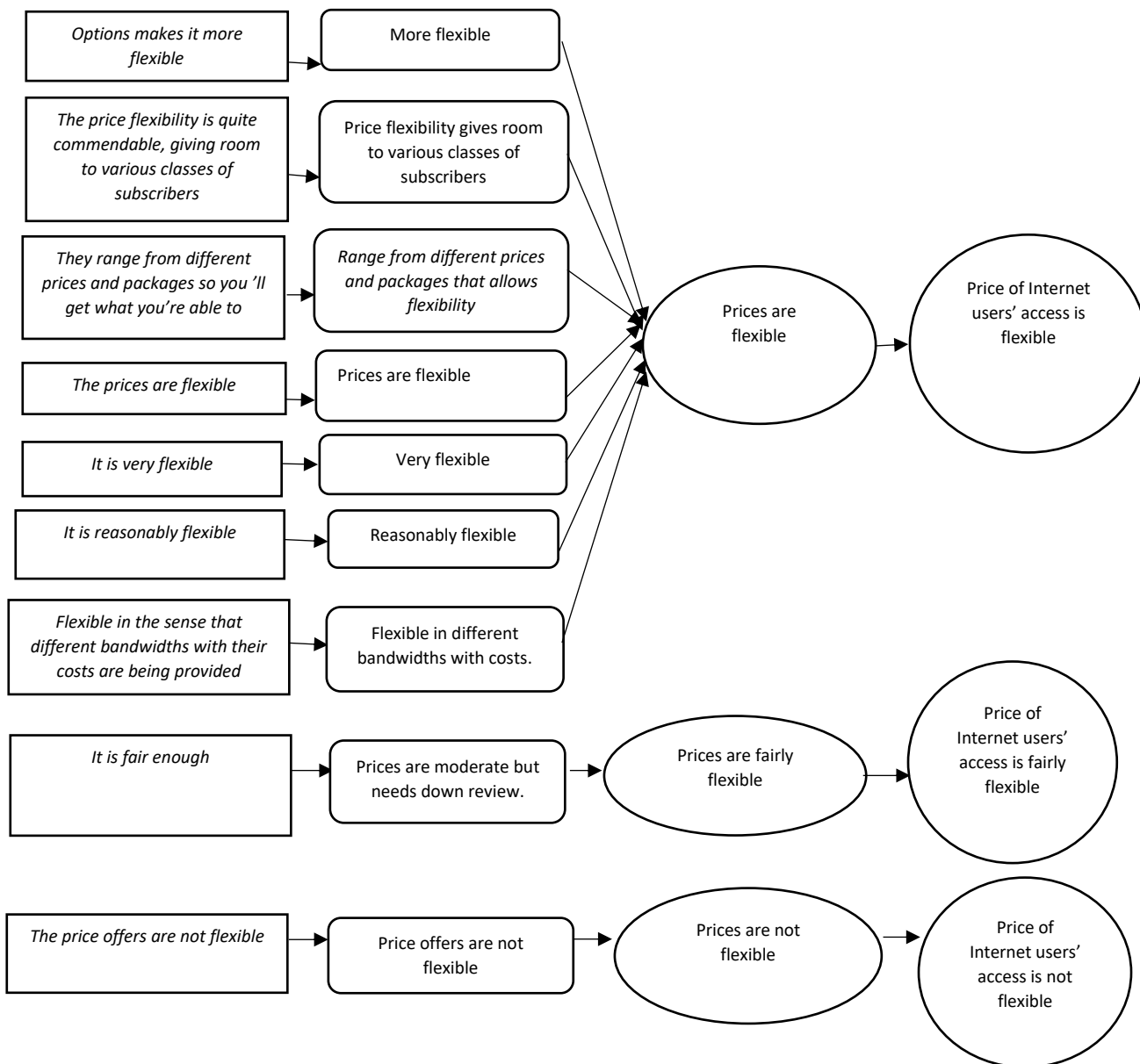


Figure 5.13: Thematic Map for Analysis of Semi-Structured Interviews relating to Prices of Internet Users' Access (Continued)

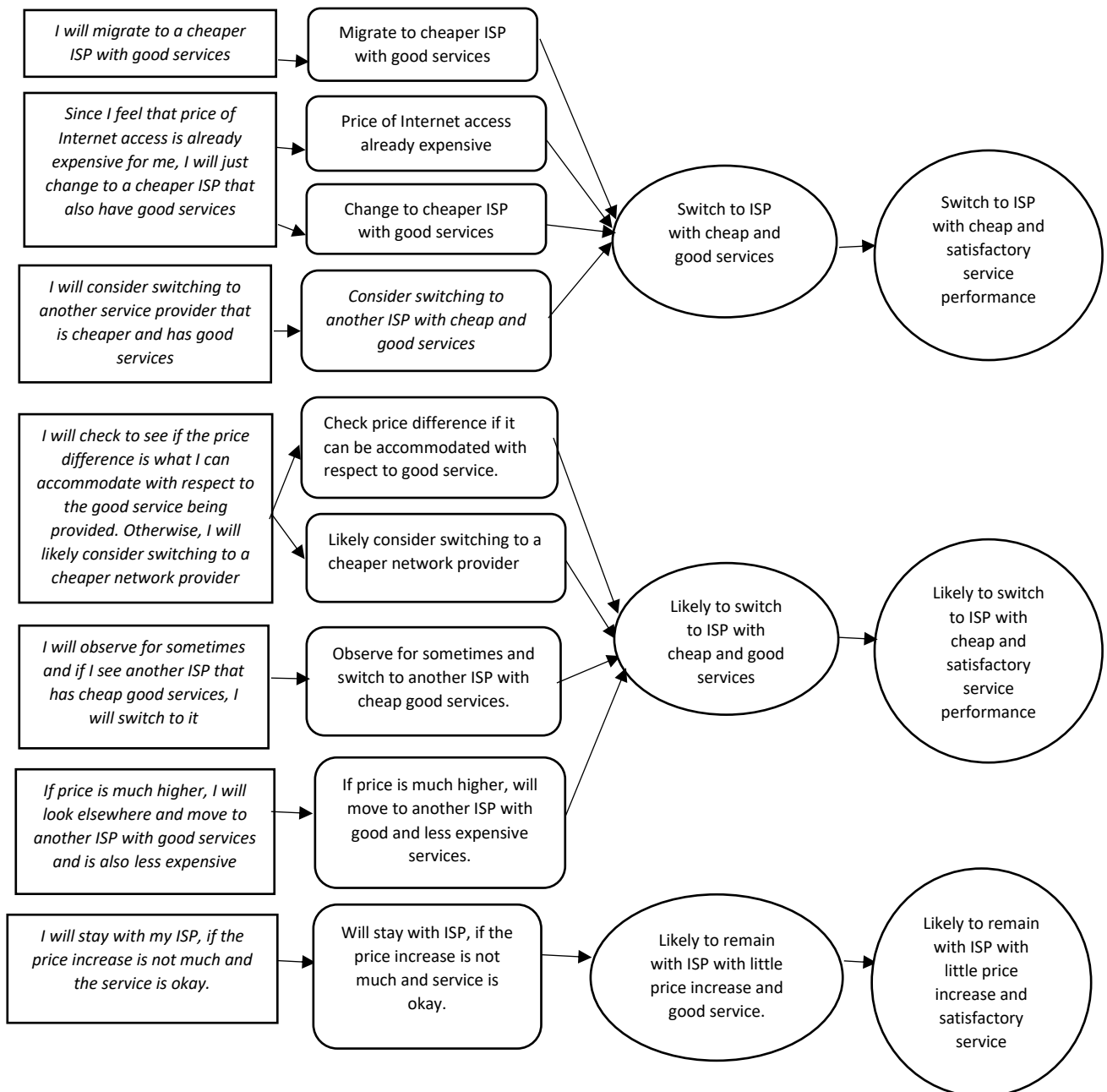


Figure 5.14 :Thematic Map for Analysis of Semi-Structured Interviews relating to Prices of Internet Users' Access (Continued)

The opinions of participants were obtained to describe how they feel about the prices or tariffs for Internet users' access offered by their ISPs. Data were collated with the main theme/category that include: price of Internet users' access is expensive; price of Internet users' access is moderate; tariff of Internet users' access is expensive. The data were also collated along with the following themes that include: tariff of Internet users' access is expensive; tariff of Internet users' access is moderate; tariff of Internet users' access is okay.

The participants (14) i.e., **Participants IR1, IR5, IR6, IR8, IR9, IR10, IR11, IR17, IR19, IR20, IR21, IR22, IR24 & IR25** indicate negatively by saying that the prices for Internet users' access offered by their ISPs are expensive. Some participants (8) i.e., **Participants IR2, IR4, IR7, IR12, IR15, IR16, IR18 & IR23** have positive opinions that the prices for Internet users' access offered by their ISPs are okay while other participants (3) i.e., **Participants IR3, IR13 & IR14** have neutral views that the prices are moderate. The specific opinions by participants that the prices for Internet users' access offered by their ISPs are expensive are stated below:

"The tariff is expensive to access the Internet service" (Participant IR9).

"I feel much is needed for them to do in forms of quality of service in order to justify the prices and tariffs they charge users. However, their prices seem expensive" (Participant IR11).

"Very challenging and so high, there is need for reduction" (Participant 21).

"It is very high, when I compare it with other countries" (Participant 22).

As regards describing flexibility of the prices for Internet users' access offer by ISPs, data were collated with the main theme/category, price of Internet users' access is flexible and with theme prices are flexible. The participants (14) i.e., **Participants IR6, IR7, IR10, IR11, IR12, IR14, IR15, IR16, IR18, IR19, IR21, IR23, IR24 & IR25** do have positive views that prices for Internet users' access offered by their ISPs are flexible. Some of the participants (3) i.e., **Participants IR1, IR3 & IR22** are of negative views that the prices are not flexible while the other participants (8) i.e., **Participants IR2, IR4, IR5, IR8, IR9, IR13, IR17 & IR20** are of neutral opinions.

Some specific views by participants are stated below:

"Options makes it more flexible" (Participant IR6).

"The price flexibility is quite commendable, giving room to various classes of subscribers" (Participant IR11).

“They range from different prices and packages so you’ll get what you’re able to”
(Participant IR12).

“The prices are flexible” **(Participants IR14 & IR15).**

“It is very flexible” **(Participants IR16, IR18, IR19 & IR21).**

“It is reasonably flexible” **(Participant IR23 & IR25).**

“Flexible in the sense that different bandwidths with their costs are being provided”
(Participant IR24).

With respect to examining the reactions of participants, if they notice that their ISP prices for services are now higher than other service providers, data were collated with the main themes/categories that include switch to ISP with cheap and satisfactory service performance; likely to switch to ISP with cheap and satisfactory service performance; likely to remain with ISP with little price increase and satisfactory service performance. These were also collated with the themes that include: switch to ISP with cheap and good services; likely to switch to ISP with cheap and good services; likely to remain with ISP with little price increase and good service.

The participants (22) i.e., **Participants IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR11, IR12, IR13, IR14, IR15, IR16, IR17, IR18, IR19, IR20, IR21, IR22, IR23, IR24 & IR25** do have the negative views that they will react by switching or being likely to switch to another ISP with cheaper prices and good services, while the remaining participants (3) i.e., **Participants IR1, IR2 & IR3** state that they will likely remain with their ISPs, if the difference in prices compared to other ISPs are minimal and the ISP is still delivering good services.

Some specific views by participants having the opinions of reacting by switching or likely to switch to another ISP are stated below:

“I will migrate to a cheaper ISP with good services” **(Participant IR4).**

“Since I feel that price of Internet access is already expensive for me, I will just change to a cheaper ISP that also have good services” (**Participant IR5**).

“I will consider switching to another service provider that is cheaper and also has good services” (**Participant IR6**)

“I will check to see if the price difference is what I can accommodate with respect to the good service being provided. Otherwise, I will likely consider switching to a cheaper network provider” (**Participant IR7**).

“I will observe for sometimes and if I see another ISP that has cheap good services, I will switch to it” (**Participant IR12**).

“If price is much higher, I will look elsewhere and move to another ISP with good services and is also less expensive” (**Participant IR14**).

One of the participants who stated that they will likely remain with their ISPs, provided it is a little price increase and good services, said thus “I will stay with my ISP, if the price increase is not much and the service is okay” (**Participant IR2**).

The summary of the participants’ opinions indicating the numbers of effects is presented in Table 5.48.

Table 5.488: Summary of Analysis of Semi-Structured Interviews relating to relating to the Prices of Internet Users’ Access

Initial code	Theme	Main theme/Category	Effects		
			+	-	Neutral View
Response to Question (i)			+	-	Neutral View
Tariff is expensive to access internet service.	Tariff of Internet users’ access is expensive.	Price of Internet users’ access is expensive.	8	14	3
Not good, based on the economy situation.	Tariff of Internet users’ access is expensive.				
Quality of service used to justify users access tariffs; however, prices seem expensive.	Tariff of Internet users’ access is expensive.				

Initial code	Theme	Main theme/Category	Effects		
Prices are challenging and so high, there is need for reduction.	Tariff of Internet users' access is expensive.				
It is very high compares with other countries	Tariff of Internet users' access is expensive				
Prices are moderate but needs down review.	Tariff of Internet users' access is moderate	Price of Internet users' access is moderate			
Prices seem okay	Tariff of Internet users' access is okay	Price of Internet users' access is affordable			
Response to Question (ii)					
More flexible	Prices are flexible	Price of Internet users' access is flexible.	14	3	8
Price flexibility gives room to various classes of subscribers	Prices are flexible				
Range from different prices and packages that allows flexibility	Prices are flexible				
Prices are flexible	Prices are flexible				
Very flexible	Prices are flexible				
Reasonably flexible	Prices are flexible				
Flexible in different bandwidths with costs	Prices are flexible				
Prices are fairly flexible	Prices are fairly flexible	Price of Internet users' access is fairly flexible			
Price offers are not flexible	Prices are not flexible	Price of Internet users' access is not flexible			
Response to Question (iii)					
Migrate to cheaper ISP with good services	Switch to ISP with cheap and good services	Switch to ISP with cheap and satisfactory service performance.	3	22	0
Price of Internet access already expensive	Switch to ISP with cheap and good services				
Change to cheaper ISP with good services					
Consider switching to another ISP with	Switch to ISP with cheap				

Initial code	Theme	Main theme/Category	Effects		
cheap and good services	and good services				
Check price difference if it can be accommodated with respect to good service. Likely consider switching to a cheaper network provider	Likely to switch to ISP with cheap and good services	Likely to switch to ISP with cheap and satisfactory service performance.			
Observe for sometimes and switch to another ISP with cheap good services.	Likely to switch to ISP with cheap and good services.				
If price is much higher, will move to another ISP with good and less expensive services.	Likely to switch to ISP with cheap and good services.				
Will stay with ISP, if the price increase is not much and service is okay.	Likely to remain with ISP with little price increase and good service.				

The findings from the opinions of participants during the interviews indicate the significance of prices of Internet users' access as a moderator that could influence customers' perceptions. The findings show that even though customers are looking for better quality Internet services, they are still mindful of the price by which the services are delivered by the ISPs to them. This implies that even though the ISPs' service performance is perceived to be satisfactory by customers, which in turn could lead to behavioural intention towards more Internet service uptake, the ISPs should still be mindful of the prices by which these services, at a good quality rate, are delivered to their customers. The ISP should ensure that these services are not just of good quality only but they should be made affordable for customers. This will help to enhance Internet uptake by customers and to obtain quality services at an affordable rate.

CHAPTER SIX

6.0 FINDINGS DISCUSSION, CONCLUSION AND RECOMMENDATION

6.1 INTRODUCTION

This chapter presents the report of the findings in relation to the objectives of the research. The cross examination of the literature and the analysis of both qualitative and quantitative data, which provide answers to the research questions, are discussed. It also presents the research conclusion, limitation of study and recommendation for future research.

6.2 ISPS' SERVICE PERFORMANCE RELATIONSHIP WITH CUSTOMER SATISFACTION

Focus: The extent to which ISPs' service performance relates to customers' satisfaction in FCT Abuja, Nigeria.

As indicated in the first research question with reference to objective (i) which set out to "investigate the extent to which ISPs' service performance relates to customer satisfaction", the research attempted to discover the extent to which ISPs' service performance relates to customer satisfaction. The theory of service management is significant, to know the needs and wants of customers, what they appraise and are actually looking for (Kotler and Armstrong, 2007). Therefore, the need to examine what customers really want in a particular service sector such as telecom/ISP sector is very important.

Section 2.3, identified the dimensions to measure ISPs' service performance in this research. The dimensions include network quality, customer service and technical support, information quality, security and privacy. These are dimensions, which customers expect to see when evaluating ISPs' service performance as revealed by Thaichon *et al.*, (2014) and Quach *et.al* (2016).

According to studies by Brady and Cronin (2001); Kotler and Armstrong (2007); and Ghotbabadi *et al.* (2015), the important factor of business performance is that the satisfaction of customers leads to loyalty, repurchase intention and willingness to

recommend to others (word of mouth). This is supported by Wiele *et al.* (2002) who states that there is a significant relationship among customer satisfaction, ISPs' service performance and the changing behaviour of customers. This was further supported by Buhajoti (2019) that customer satisfaction is highly influenced by the quality of service and is the most important determinant that enhances customer satisfaction. This shows that ISPs' service performance is related to customer satisfaction (Abdul *et al.*, 2014).

The above-mentioned ISPs' service performance dimensions are analysed through both quantitative and qualitative methods for purpose of substantiating to enable the research to provide a relevant and accurate outcome.

The Cronbach alpha test was applied for the reliability analysis of the research, which investigates the extent of the test results' consistency. Section 5.2.1, Table 5.1 shows that the internal consistency of the sub-construct ranges from 0.8675 to 0.9547; inter-item correlation, which has relatively high values from 0.6111 to 0.8281; overall internal consistency of the instruments with reliability coefficient value of 0.9812; and the internal consistency for each component is high (>0.7). This is acceptable and indicates that each item has good correlation with other items, has a unique contribution to the conceptual framework and statistically the variables can explain the conceptual framework.

This research employs the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity to examine this study's conceptual framework. Section 5.2.1, Table 5.2, shows that the value of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy is $0.781 > 0.5$, at $p < 0.05$, indicating that the sample chosen is appropriate and adequate enough for the research.

The study outcomes from the correlation matrix of ISPs' service performance and customer satisfactions presented in Section 5.2.3, Table 5.9 shows that there are correlations of ISPs' service performance dimensions with customer satisfaction.

This research confirms via quantitative analysis in Section 5.2.4.1, Table 5.11 that the ISPs' service performance could explain 78.57% variations in customer satisfaction and

this degree of variation was statistically significant (f-statistic=455.54, $p < 0.05$). Thus, ISPs' service performance can predict and increase satisfaction among the Internet users in FCT Abuja, Nigeria.

This was substantiated by the qualitative analysis of interviews with regard to participants' perceptions on satisfaction of quality Internet service provision based on the ISPs' service performance. This is expressed with the main themes/category that "choice of ISP is because ISPs' service performance is satisfactory" (see Section 5.3.3, Figure 5.2, Appendix IX Table 3 & Table 5.45)

Consequently, the testing Hypothesis H1 and its sub-hypotheses H1_a – H1_d, in this research indicate that network quality, information quality, security and privacy are significantly related to customer satisfaction, except customer service and technical support that *is not* significantly related to customer satisfaction. However, it shows that the Hypothesis H1 - Overall ISPs' service performance is significantly related to customer satisfaction (see Tables 5.16 and 5.17 in Item (i) of Section 5.2.4.6).

The sub-hypothesis H1_b that shows that customer service and technical support does not significantly influence customer satisfaction supports the study of Kim *et al.* (2007) that laid emphasis only on network performance and ignored customer service performance in their study's conceptual framework, when evaluating service performance of ISPs.

This sub-hypothesis H1_b also supported the study of Vlachos and Vrechopoulos (2008) as they regard network performance as one of the most important drivers of the overall ISPs' service quality and did not put much emphasis on customer service performance.

The outcome of this research shows a little variation to the study of Thaichon *et al.* (2014) that considered customer service and technical support as one of the key components when evaluating ISPs' service quality or ISPs' service performance. However, this current research reveals that the key components that predict customer satisfaction when evaluating ISPs' service performance are network quality; information quality; security

and privacy as, statistically, customer service and technical support does not significantly influence customer satisfaction.

6.3 THE INTERACTION OF ISPS' SERVICE PERFORMANCE AND MODERATORS (INTERNET BANDWIDTH AND PRICES OF INTERNET USERS' ACCESS) INFLUENCE ON CUSTOMER SATISFACTION

Focus: The extent to which Interaction of ISPs' Service Performance and Moderators Influence Customer Satisfaction in FCT Abuja, Nigeria.

This section relates to the second research question and objective (2), which is set to “examine the extent to which the interaction of ISPs' service performance and moderators influence customer satisfaction.

Sections 2.6.1 – 2.6.2 shows literature review of issues that moderate Internet service provision. Considering the enormous tasks that would be involved in testing the interactions of the five moderators with ISPs' service performance as they relate to customer satisfaction and behavioural intention of customers, this study considered the interactions of two of these moderators (i.e., Internet bandwidth and prices of Internet users' access) with ISPs' service performance.

From the focus group study, one of the key issues stated by participants is the price of Internet users' access. In line with this, Erevelles *et al.* (2003) opine that the price of what the consumer pays for access to Internet services from ISPs have influence on customer satisfaction. Literature also shows that an affordable cost has influence on customer satisfaction (Paulrajan and Rajkumar, 2011; Erevelles *et al.*, 2003, Joudeh *et al.*, 2018).

To corroborate the above discussions: the findings from quantitative descriptive analysis, as discussed in Section 5.2.2.4, Table 5.6 shows that the components of Internet bandwidth, especially the respondents' opinions on the statement whether “if they notice a shortfall in bandwidth delivered to them by their ISPs, they will leave their ISPs for another ISP”. Approximately equal numbers of respondents (42.9%) agreed and (42.3%) disagreed with the statement, which shows the likelihood of Internet bandwidth having

influence on ISPs' service performance, customer satisfaction and behavioural intention and as well, indicating that Internet bandwidth in FCT Abuja needs remedial intervention. Also, for the prices of Internet users' access in the quantitative descriptive analysis in Section 5.2.2.5, Table 5.7, the respondents' opinions on the component statements, especially on one of the components that says "If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP", most of the respondents (61.1%) agreed that if they notice that their ISPs' prices for services are now higher than other ISPs, they will consider switching to another ISP. However, slightly over a quarter of the respondents (26.6%) disagreed with the view. This analysis shows the likelihood of prices of Internet users' access interaction with ISPs' service performance having influence on customer satisfaction and behavioural intention. The above discussions are confirmed by the quantitative multiple regression analysis as presented in Section 5.2.4.2, Table 5.12 that shows that ISPs' service performance explains 78.5% variation of customer satisfaction. While the interaction of ISPs' service performance and moderators (Internet bandwidth and prices of Internet users' access) indicate 84.4% variation in customer satisfaction. This implies that the interaction of ISPs' service performance with moderators have a significant influence on customer satisfaction than does the influence of ISP's service performance directly on customer satisfaction.

Thus, statistically, there will be 84.4% improvement in customer satisfaction if the ISPs pay attention to service performance, Internet bandwidth and prices of Internet users' access among Internet users in FCT Abuja, Nigeria. However, network quality, information quality, security and privacy are the most statistically significant components of the interaction of ISPs' service performance to improve customer satisfaction. It also indicates clearly the need to always consider prices of Internet users' access along with

quality of service to enable affordability of quality service that would enhance Internet service uptake.

This was validated by the findings from qualitative analysis for Internet bandwidth as discussed in Section 5.3.5, Figures 5.6, 5.7, 5.8, 5.9, 5.10 & 5.11, Appendix X Table 5 and Table 5.47 that reveal Internet bandwidth is a factor that moderates ISPs' service performance as it makes customers take a decision of switching for better services. That is, it affects customer satisfaction and patronage.

In the same vein, for prices of Internet users' access, as also discussed in the qualitative analysis findings of Section 5.3.6, Figures 5.12, 5.13 & 5.14, Appendix X Table 6 and Table 5.48. they indicate that the significance of prices for Internet users' access as moderator could influence customers' perceptions or decisions. The findings also reveal that although customers are looking for better quality Internet services, they are also mindful of the price by which they obtain these services from ISPs. This implies that though customers might perceive ISPs service performance to be satisfactory, ISPs should also ensure that these services are not just of good quality but they should be made affordable for customers. This will help to enhance Internet uptake.

Thus, testing of the Hypotheses H2 and its sub-hypotheses H2_a - H2_d indicated in Tables 5.18 – 5.22 in Item (ii) and Tables 5.23 – 5.27 in item (iii) of Section 5.2.4.6, accept and support that the interaction of network quality; information quality; security and privacy; customer service and technical support with Internet bandwidth respectively, significantly influence customer satisfaction. The **H2** - The overall interaction of ISPs' service performance and Internet bandwidth significantly influences customer satisfaction.

Also, Hypotheses H3 and its sub-hypotheses H3_a – H3_d accept and support that the interaction of network quality; customer service and technical support; information quality; security and privacy with price of Internet users' access respectively, significantly

influence customer satisfaction. The **H3** - overall interaction of ISPs' service performance and price of Internet users' access significantly influence customer satisfaction.

6.4 THE RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND BEHAVIOURAL INTENTION

Focus: The extent of the relationship between customer satisfaction and behavioural intention in FCT Abuja, Nigeria.

This section relates to the third research question and objective (iii), which is set to “examine the extent of the relationship between customer satisfaction and behavioural intention of customers.” Literature reviewed shows there is a significant relationship between the Internet service quality, customer satisfaction and loyalty (Aasfour and Al-Haddad, 2014; Amin, 2016). When customer expectations are met, it leads to customer satisfaction, which will encourage repeat purchase of service, customer loyalty (Angelova and Zeqiri, 2011). Section 2.5 shows there is a direct relationship between customer satisfaction and behavioural intentions or customer loyalty (Ramseook-Munhurrun and Naidoo, 2011).

To support the above literature, the quantitative multiple regression analysis in Section 5.2.4.3, Table 5.13 shows that the model analysis indicates that customer satisfaction explains 79.8% significant variation in behavioural intention, which implies statistically that customer satisfaction has a positive relationship with behavioural intention of Internet users. That is, with the increase in customer satisfaction, behavioural intention of customers will be positive towards the services of ISPs, by demanding more of their services.

Likewise, the qualitative analysis as discussed in Section 5.3.4 shows that when customers are satisfied with Internet services delivered by their ISPs based on ISPs' service performance, this will lead to customer behavioural intention to continue to use the service or patronise that particular ISP that is providing a better-quality service.

Therefore, the testing Hypothesis H4 as indicated in Section 5.2.4.6, Tables 5.28, Item (iv), accepts and supports the Hypothesis **H4** – Customer satisfaction is significantly related to behavioural intention of customers.

6.5 THE RELATIONSHIP OF ISPs' SERVICE PERFORMANCE WITH BEHAVIOURAL INTENTION OF CUSTOMERS (CUSTOMER LOYALTY) VIA THE MEDIATION OF CUSTOMER SATISFACTION

Focus: The extent of the relationship between ISPs' service performance and behavioural intention of customers via the mediation of customer satisfaction in FCT Abuja, Nigeria.

This section relates to the fourth research question and objective (iv), which is set to “determine the extent of the relationship between ISPs' service performance and behavioural intention of customers via the mediation of customer satisfaction.”

A critical analysis of the literature review in Section 2.4.4 shows that ISPs' service quality or ISPs' service performance influences satisfaction, which consequently leads to behavioural intentions (Turk and Avcilar, 2009; Deona *et al.*, 2015). Section 2.5 also indicates that service quality has significant influence on customer satisfaction, which leads to customer loyalty or behavioural intention (Cheng *et al.*, 2008; Vlachos and Vrechopoulos, 2008; Loke *et al.*, 2011; Arokiasamy and Abdullah, 2013; Alabar *et al.*, 2014; Dhurup *et al.*, 2014; Quach *et al.*, 2016; Joudeh *et al.*, 2018); Akroush and Mahadin, 2019). This indicates the mediating effects of customer satisfaction on the relationship between Internet service quality (i.e., ISPs' service performance) and customer loyalty (behavioural intention) for customer retention and getting new patronage (Sarkindaji, *et al.*, 2015; Khan *et al.*, 2016).

To corroborate the above literature, quantitative analysis in Section 5.2.4.4, Table 5.14 reveals that the inclusion of customer satisfaction in the model increases the predictive power of the model from 75.4% to 82.9%, which shows the significant mediating power of customer satisfaction. It indicates that network quality, information quality, security and privacy are the key ISPs' service performance components that predict Internet user's

behavioural intention. Therefore, for the ISP's service performance to influence the behavioural intention of customers, there is the need to improve service performance in the areas of network quality, information quality, security and privacy. Consequently, if there is the need for ISPs' service performance to improve the behavioural intention of customers, focus and improvement should not only be on service performance but should also consider customer satisfaction in order to influence behavioural intention of customers positively in FCT Abuja, Nigeria.

To substantiate the above views, the qualitative findings show that when customers are satisfied with Internet services delivered by their ISPs based on ISPs' service performance dimensions, this leads to behavioural intention to continue to use the service or patronise that particular ISP that is providing a better-quality service. It was also observed from the participants' interviews that even though the ISPs' service performance dimensions are very significant in making their decisions, issue of affordable service is also very important as this is one of the reasons for the continuous use of their respective ISP as their best choice. This shows that apart from the significant influence of customers' perceptions of ISPs' service performance on customer satisfaction, which leads to behavioural intention, the issue of price of services can hinder usage or make customers switch from one particular ISP to another (Section 5.3.4).

Thus, the testing of Hypothesis H5 and its sub-hypotheses H5_a – H5_d, as indicated in Tables 5.29 – 5.33 in Item (v) of Section 5.2.4.6, accept and support that network quality; customer service and technical support; information quality; security and privacy respectively, are significantly related to behavioural intention via the mediation of customer satisfaction. **H5** – Overall ISPs' service performance is significantly related to behavioural intention via the mediation of customer satisfaction.

6.6 THE EXTENT TO WHICH CUSTOMER SATISFACTION MEDIATES THE MODERATED RELATIONSHIPS BETWEEN ISPS' SERVICE PERFORMANCE AND BEHAVIOURAL INTENTION OF CUSTOMERS

Focus: The Extent to which Customer Satisfaction Mediates the Moderated Relationships between ISPs' Service Performance and Behavioural Intention of customers in FCT, Abuja, Nigeria.

This section relates to the fifth research question and objective (v), which is set to “determine the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and behavioural intention of customers.

Further to the discussion in Section 6.3 of this Chapter, inadequate bandwidth has an effect on the quality of service that would affect network quality (Hecht, 2016). Customer attitudinal bonding is determined by customer satisfaction with respect to service performance (Gerpott, 2018). This implies that the mediation of customer satisfaction in the interaction of ISPs' service performance and Internet bandwidth influence the behavioural Intention of customers. Thus, sufficient Internet bandwidth will allow better service performance that improve customer satisfaction and lead to behavioural intention. To support the above discussion, quantitative analysis of Section 5.2.4.5, Table 5.15, indicates that the model statistics show that ISPs' service performance and moderators (Internet bandwidth and prices of internet users' access) accounted for 86.73% degree of variations of behavioural intention of customer. While the effect of ISPs' service performance and moderators via customers' satisfaction accounted for 88.1% degree of variation of behavioural intention of customers. Thus, this study found that the ISPs should ensure that service performance, Internet bandwidth, prices of Internet users' access and customer satisfaction are taken into account in order to benefit more from behavioural intention of Internet users in FCT Abuja, Nigeria.

Thus, the testing of the Hypothesis H6 and its sub-hypotheses H6_a -H6_d, and Hypothesis H7 and its sub-hypotheses H7_a -H7_d, as indicated in Tables 5.34 – 5.38 in Items (vi) & (vii) of Section 5.2.4.6, accept and support that:

The interaction of network quality, information quality, security and privacy, and customer service and technical support with Internet bandwidth respectively, significantly influences behavioural intention via mediation of customer satisfaction. The Hypothesis **H6** - the interaction of overall ISPs' service performance and Internet bandwidth significantly influence behavioural intention via mediation of customer satisfaction.

Likewise, the interaction of network quality, information quality, security and privacy, and customer service and technical support with price of Internet users' access respectively, significantly influences behavioural intention via mediation of customer satisfaction. The Hypothesis **H7** - The interaction of overall ISPs' service performance and price of Internet users' access significantly influence behavioural intention via mediation of customer satisfaction.

6.7 FRAMEWORK AFTER RESEARCH ANALYSIS/TESTING

Earlier as discussed in Section 2.5, literature review shows that studies have been conducted to examine the relationship among service performance, customer satisfaction, and customer loyalty in different service sectors that include tourism service (Baker & Crompton, 2000) and hotel service (Choi & Chu, 2001; Kim & Cha, 2002) and telecommunications service (Gerpott *et al.*, 2001; Kim *et al.*, 2004) among others. These studies have shown that there is a relationship among service performance, customer satisfaction and customer loyalty (see Section 2.5). These were also corroborated by studies carried out by Kim *et al.* (2007), Vlachos and Vrechopoulos (2008), Thaichon *et al.* (2014) and Quach *et al.* (2016) that identified that there is a relationship among ISP service performance, customer satisfaction and customer loyalty (behavioural intention) in an Internet service delivery context (see Section 2.3). An adapted framework or model was developed by this research from literature review showing interrelationship among ISPs' Service Performance, Customer Satisfaction & Behavioural Intention and this was illustrated in Figure 2.5, Section 2.5 (see Section 2.5).

Also, based on literature review, this research identified some issues that can moderate Internet service delivery which serve as moderators which were not considered in previous studies (see Section 2.6). The limitations of existing studies are that some only focused on the network performance or network quality and did not consider other dimensions such as the customer care service. While the study that considered both network performance and customer care service, did not consider issues like moderators (such as Internet bandwidth and price of Internet service users' access) as the interactions of these moderators with ISPs' service performance can influence customer satisfaction and behavioural intention. Hence, there exists a knowledge gap in the published literature in relation to evaluating the extent to which customer perceptions of quality Internet services influence users Internet service uptake (see Section 2.10).

Consequently, in terms of customers' perceptions of ISP service performance, this research developed a conceptual framework to be tested (as discussed in Section 2.8 and illustrated in Figure 2.6).

The conceptual framework developed shows relationship among ISPs' service performance, the interaction of ISPs' service performance and moderators, customer satisfaction and behavioural intention. The demographics variables that include age, gender, educational background, profession and income are considered as control or constant variables by the researcher (see Section 2.8).

This conceptual framework indicates the dimensions of the ISPs' service performance as the independent variables that can influence customer satisfaction and behavioural intention as Network Quality, Customer Service and Technical Support, Information Quality, Security and Privacy, which were adapted from previous studies by Thaichon *et al.* (2014) and Quach *et al.* (2016) (see Section 2.3). Also, the literature review shows the importance of the Internet bandwidth as there are rapid growth in global traffic and further demand for bandwidth to meet the expectations of customers (Hecht, 2016). Customers'

demands for more Internet bandwidth are increasing (Alton, 2017). It shows the issue of price of Internet service users' access as equally important in this research as price of services is usually considered by customers as a yardstick to evaluate whether the service meets expectations or not and that price logically corresponds to the quality of service (Hessalmaldin, 2007). Out of the five moderators mentioned in this research, only two, which are "Internet bandwidth" and "price of Internet users' access", are identified as moderators to be tested in this research. These two moderators considered in this research are prioritised because of demands from customers for more Internet bandwidth (Alton, 2017) and the price for Internet users' access that influences customer perception and is a driver of customer satisfaction (Erevelles *et al.*, 2003). The other three moderators are recommended for future research (see Section 2.6). Consequently, to guide the process of analysing and testing the conceptual framework, hypotheses as they relate to the research objectives were developed.

Subsequently, focus groups were conducted and the purpose of the focus group study was to ascertain if the findings from it will correspond with the literature review and to see the need for extensive research. It was discovered that the findings from the focus group study bring out issues of concern that corroborate the literature review, which necessitates the need for further examination through sampling a larger population via survey questionnaires for wider opinions (see Sections 3.11 & 4.3).

Consequently, the questionnaire was developed, which was informed by previous researches on ISPs' service performance, customer satisfaction, behavioural intention, Internet bandwidth and prices of Internet users' access, as well as the findings from focus group study. This was administered to carry out a pilot test and ensure that the questionnaire was adequate to obtain the relevant information that is required. The appropriate questionnaire was administered to obtain quantitative data for analysis using statistical tests that involve descriptive and inferential statistical methods (Regression

Analysis) for testing of hypothesis. The regression models were used to analyse the hypotheses and objectives of this study (see Sections 3.11, 5.2.1 & 5.2.2).

To substantiate the survey questionnaires conducted, a qualitative method using semi-structured interviews was conducted and analysed using the thematic analysis. The qualitative analysis outcome from these interviews was used to validate the outcome from the quantitative analysis to ensure this research provides relevant and accurate results (see Sections 3.11 & 5.3).

After the analysis or testing of the conceptual framework, the findings revealed that the dimensions of ISPs' service performance that are significantly related to customer satisfaction, are network quality, information quality, security and privacy, while customer service and technical support **are not** significantly related to customer satisfaction (see Tables 5.16 in Item (i) of Section 5.2.4.6).

The outcome of analysis or testing shows a little variation from the conceptual framework that shows customer service and technical support as one of the key components when evaluating ISPs' service performance. However, this current research reveals that the key components that predict customer satisfaction when evaluating ISPs' service performance are network quality; information quality; security and privacy as customer service and technical support does not significantly influence customer satisfaction. Thus, the Revised Framework, which does not include customer service and technical support is shown in Figure 6.1.

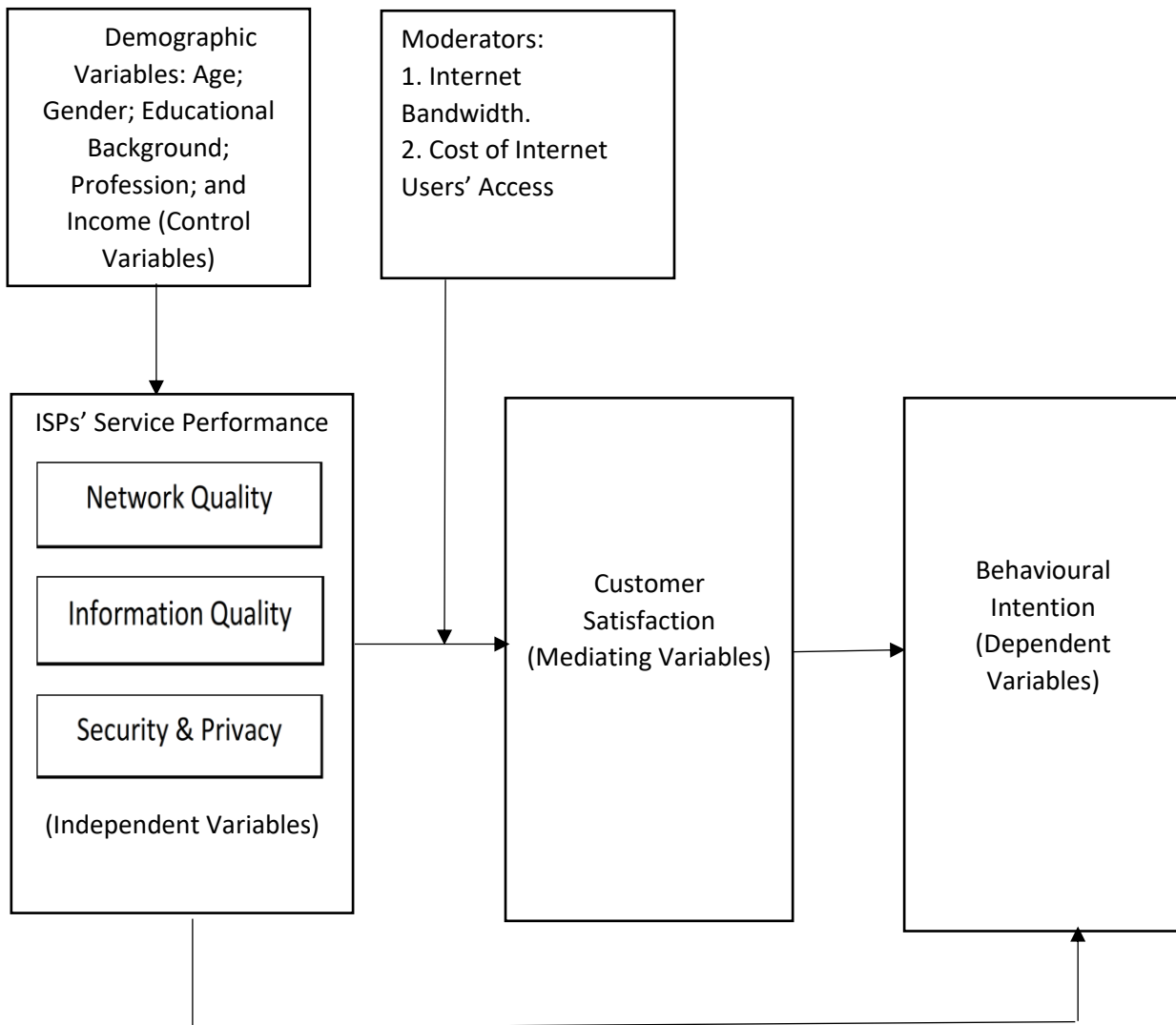


Figure 6. 1: Framework for Evaluation of the Extent to which Users' Internet Service Uptake is influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria

6.8 CONTRIBUTION TO KNOWLEDGE

These research findings offer potential contributions to knowledge in the field by providing a framework and methodology for evaluating the extent to which users' Internet service uptake is influenced by customer perceptions of quality Internet services. It helps to show the extent to which customer perception of ISPs' service performance relates to customer satisfaction and behavioural intention within the ISP Sector. This will allow the projection of anticipated future needs and actual satisfaction of customers that could lead to behavioural intention.

It also confirms that the dimensions adopted to measure ISPs' service performance and the relationships amongst the variables tested, based on the research objectives of this study as being relevant and appropriate. But it reveals key components of ISPs' service performance that must be considered when evaluating, such as network quality, information quality, security and privacy. It reveals that customer service and technical support does not significantly influence customer satisfaction. It supports previous similar studies such as Kim *et al.* (2007) and Vlachos and Vrechopoulos (2008) and shows a little variation with the study of Thaichon *et al.* (2014), whose dimensions were adopted for evaluating ISPs' service performance in this research. However, it provides a robust framework that fills the knowledge gap of considering the interaction of moderators and ISPs' service performance that was not considered in previous similar studies, when evaluating customer perceptions of ISPs' service performance as it relates to customer satisfaction and behavioural intention (customer loyalty).

The findings further show that for ISPs to conduct a reliable performance evaluation of quality Internet service provision, adequate considerations must be given to functional and technical qualities in consonance with the quality dimensions so that ISPs can make provision for remedial intervention.

6.9 IMPLICATIONS

The research findings shed light on significant issues that ISPs must consider in terms of service performance to enhance customer satisfaction and behavioural intention. It indicates that as ISPs are trying to improve their service performance to meet with customer satisfaction and behavioural intention, they should always take into consideration that even though they enhance their service performance, their services should be affordable. Most customers still patronise their ISPs because of the satisfactory and affordable services they obtain from them.

Research outputs can be accessed and adopted by stakeholders (such as the Governments, Regulatory/Policy Agencies, Service Providers, amongst others) and may be used as a model for business operators to improve service performance.

6.9.1 POLICY MAKERS/IMPLEMENTERS

The research conducted a structured fieldwork and data collection that show a study of developing nation of FCT Abuja in Nigeria that will guide policy makers/implementers to enhance Internet infrastructure, ISPs' service performance and provide affordable services.

6.9.2 ACADEMICS AND RESEARCHERS

For academics and researchers, this research study will contribute methodologically by demonstrating how mixed method research can be used to obtain a fuller understanding of the relationship between ISPs' service performance, customer satisfaction and customer loyalty. This offers an approach that can be adapted as a template to be used periodically to assess customers' opinion with respect to the delivery of quality Internet services in developing countries like Nigeria.

6.9.3 CIVIL SOCIETY AND OTHER STAKEHOLDERS

For civil society and other stakeholders, this research study will provide an approach that objectively assesses the performance of Internet service delivery through customer perceptions of quality Internet services. This approach will proffer a medium for civil society and other stakeholders to periodically monitor and assess the delivery of quality Internet services in developing nations like Nigeria. This will enable them to discover the appropriate gaps and mount pressure on the ISPs, and the Regulator for possible remedial actions.

6.9.4 SERVICE ORGANISATIONS/SERVICE MANAGERS

Knowing how consumers perceive service performance and being able to measure it can benefit management of service organisations (Adil *et al.*, 2013). Reliable data that would assist the service organisations within the ISP sector to periodically check and maintain improved quality of service can be provided (Umesh, 2014). This will help to identify ISPs' service performance gaps for appropriate remedial actions.

6.10 REFLEXIVITY ON THE ROLE OF THE RESEARCHER

At the initial stage of the study, the researcher was under the assumption that ISPs' service performance in Nigeria was very poor and as a result, people are frustrated using the Internet service and this has hindered Internet service uptake. Thus, this suggested the need to improve the quality of Internet services. Consequently, a visit was made to policy and regulatory agencies on telecommunications and ICT in FCT, Abuja. The interaction with them reveals that there was no robust mechanism put in place to assess the ISPs' service performance and their focus then was mainly on the quality of voice call services. Hence, this suggested the need for a robust ISPs' service performance model that would guide the provision of quality Internet service.

In view of this, the researcher embarked on a literature review on Internet service quality. During the literature review, it was discovered that in this type of study, it would be better to use different approaches in order to obtain relevant and accurate results. Thus, the researcher employs the mixed methods approach in this research using both qualitative and quantitative methods. Therefore, an exploratory study via focus group study was conducted and coordinated by the researcher. Additionally, the researcher appointed some people to serve as moderators in the focus group discussions.

Further extensive research using survey questionnaires was carried out to obtain quantitative data through an online link made available through google forms by email and WhatsApp platforms. Also, the researcher conducted semi-structured interviews to

collect qualitative data. Data collected are analysed and substantiated with the findings from the data collected through questionnaire administration.

The use of research assistants was very minimal as the researcher adopted a self-administered approach on the quantitative aspect of the research which was an extensive one. This helps to reduce induced bias circumstances in the completion of the questionnaires by respondents, therefore maintaining reasonable data collection integrity. The researcher majorly carried out the data analysis of the research, especially the qualitative aspect, using thematic analysis technique and Statistical Package for Social Science (SPSS) but he also sought the expert advice of a statistician. The documentation of report (i.e., writing / typing of the report) was solely done by the researcher.

The assumption of the researcher was that one of the key components of ISPs' service performance, which should have influenced customer satisfaction, is "customer service and technical support" but from the findings of this research, it was revealed that statistically, it does not significantly influence customer satisfaction. The key components of ISPs' service performance that predict customer satisfaction are Network Quality; Information Quality; Security and Privacy.

6.11 LIMITATION

The limitations associated with this study centre on the issue of customer perceptions that could be questioned because the sample size consisted only of respondents in FCT Abuja while customers could still expect more from ISPs in other regions of the country where perceptions regarding Internet usage may differ. However, the study presents a framework and methodology for evaluating the extent to which Internet service uptake is influenced by customers' perceptions of quality.

Also, it will important to acknowledge that this research has spanned a fairly significant period of time and therefore changes in technology, infrastructure, and the impact of the Covid-19 pandemic might have implications for contribution to knowledge.

However, this study recognised that in Nigeria the number of Internet subscribers decline by 8% between December 2020 to December 2021 (NCC Report 2021). It was attributed by the ISPs that *“the decline was majorly due to the Federal Government’s directive to suspend the Sale, Registration and Activation of new Internet lines”* (NCC Report, 2021). This study also recognised that even though there was a decline in Internet subscribers between the year 2020 and 2021, there was an increase in Internet Usage as at December 2021 when compared with the December 2020 (NCC Report, 2021). It shows that Internet usage by subscribers increased by 68.2% between December 2020 and December 2021 (NCC Report, 2021). This may likely be attributed to Covid-19 pandemic lockdown when most of the activities were carried out online via Internet services as NCC Report (2021) shows that *“as at December, 2021, the following was recorded for Internet use: Residential/Individual – 79.01%; Private Business – 10.4%; Schools & Research Institutions - 8.26%; Others – 0.99%, Cybercafés – 0.38%; Government - 0.33%; NGO - 0.20%; Hospitals & Medical Research – 0.18%; Multinational - 0.14%; Military – 0.08%; Public Security- 0.01% and Public Libraries – 0.01%”*. This record implies that most of the individuals were working from their homes and some private businesses (which may include the ISPs), schools and research institutions were providing essential services using the Internet during the covid – 19 pandemic lockdowns.

Since most of the activities during Covid -19 pandemic were done online and there was an increase in Internet usage, NCC Report (2021) indicated that there was telecom infrastructure deployment in Nigeria between the year 2020 and 2021 and the following were recorded: Base Stations for Mobile - an increase of 3.04%; Fibre Optics on land in (Km): 6.85% increasement; Submarine Fibre Optics in (Km) - an increase of 10.7%; Microwave Radio in (Km) - an increment of 0.41%. This explains the need to enhance ISPs’ service performance in order to meet up with customer expectation and improve customer satisfaction.

6.12 SUMMARY OF FINDINGS

This study was an evaluation of the extent to which users' Internet service uptake is influenced by customer perceptions of quality Internet services. Considering that customers are more critical and looking for better support, and all-encompassing quality of service (De Nederlandsche Bank, 2016), considerable researches on service quality were conducted by various researchers, especially in banking, hospitality, shopping and travel services, amongst others (Narayan, 2012; Campos and Marodin, 2012; Dixit, 2013; Phiri and Mcwabe, 2013; Dhurup *et al.*, 2014; Kariru and Aloo, 2014, Debasish and Dey, 2015; Aljasser and Sasidhar, 2016). But there exists a knowledge gap in the published literature in relation to evaluating the extent to which customer perceptions of quality Internet services influence users' Internet uptake. Hence, this study was carried out for the purpose of suggesting an appropriate ISPs' service model for evaluating objectively the extent to which users' Internet service uptake is influenced by customer perceptions of quality Internet services, which though it was aimed to be of global relevance, the primary scope of the research is for Internet service uptake in developing countries as characterised by the study made for the FCT, Abuja, Nigeria.

At the early stage of the research, there was an exploratory study via focus group to provide key issues of concern that are significant to the research (Section 4.4).

The study focused on the importance of Internet service provision as a vehicle for social and economic development. It aimed at applying an adapted service quality/service performance model to assess users' perception of quality Internet services and how this perception influences their satisfaction and behavioural intention. Therefore, the research assesses the specific research objectives as they relate to ISPs' service performance, customer satisfaction and behavioural intention.

The study, also through literature, established the relationships among ISPs' service performance, customer satisfaction and behavioural intention (customer loyalty) and indicates that there is a relationship between ISPs' service performance and customer

satisfaction; a relationship between ISPs' service performance and behavioural intention via the mediation of customer satisfaction (Section 2.5). Further to this, moderators were identified (Sections 2.6, 2.6.1 – 2.6.2) which help to assess their interactions with ISPs' service performance and how they affect customer satisfaction and behavioural intention. From the foregoing, a conceptual framework was developed to guide the study analysis (Section 2.8). Therefore, to guide the process of analysing the conceptual framework, hypotheses based on literature review as they relate to the research objectives were developed (Section 2.9).

The hypotheses formulated were tested and the test accepted and supported almost all the hypotheses except Hypothesis **H1_b** that shows customer service and technical support is not significantly related to customer satisfaction. The testing of the hypotheses also helps to provide answers to the research questions.

Further analyses that also provide answers to the research questions were carried out.

Findings from these analyses are as follow:

- (i) It shows that ISPs' service performance is significantly related to customer satisfaction i.e., enhancement in ISPs' service performance will improve customer satisfaction to 78.57% (Section 5.2.4.1, Table 5.11).
- (ii) It reveals that the interaction of ISPs' service performance and moderators (Internet bandwidth and prices of Internet users' access) indicate the improvement in customer satisfaction to 84.4%. This implies that the interaction of ISPs' service performance with moderators have a stronger significant influence on customer satisfaction than the influence of ISP's service performance directly on customer satisfaction. Also, the dimensions, network quality, information quality, security and privacy are seen as the most significant components of the interaction of ISPs' service performance to

improve customer satisfaction. Increase in any of these components will lead to increase in customer satisfaction (Section 5.2.4.2, Table 5.12).

- (iii) It indicates the need for ISPs to always consider developing Internet bandwidth and regulate prices of Internet users' access as part of their strategies when improving service performance with respect to enhancing customer satisfaction (Section 5.2.4.2, Table 5.12).
- (iv) It reveals that customer satisfaction has a positive relationship with behavioural intention of Internet users as customer satisfaction could improve behavioural intention positively to 79.88%. This indicates that the increase in customer satisfaction will result in an increase in behavioural intention, which will result in customers demanding more for ISPs services. (Section 5.2.4.3, Table 5.13).
- (v) It shows that when assessing the relationship between ISPs' service performance and behavioural intention via the mediation of customer satisfaction; network quality, information quality, security and privacy are the key components of ISPs' service performance that predict Internet user's behavioural intention. Thus, if the ISPs want to influence the behavioural intention of customers, they will need to improve their performance in the above-mentioned components (Section 5.2.4.4, Table 5.14).
- (vi) It shows that focusing directly on above-mentioned components in item (v), ISPs' service performance improves behavioural intention of customers positively to 75.41%. But with the inclusion of customers' satisfaction as mediator, ISP's service performance improves behavioural intention positively to 82.90% (Section 5.2.4.4, Table 5.14).
- (vii) It shows that the ISPs' service performance components of information quality, security and privacy, and their interaction with moderators that include Internet bandwidth and prices of Internet user's access, are key in improving

behavioural intention of Internet users to 86.73% positively. That is, if any of the components is weak, there will be a decline in demand for services, amounting to negative behavioural intention from the Internet users. The inclusion of customer satisfaction, improves behavioural intention of Internet users to 88.10%. Thus, it implies that the ISPs should ensure that service performance, Internet bandwidth, prices of Internet users' access and customer satisfaction are taken into account in order to benefit more from behavioural intention of Internet users in Abuja (Section 5.2.4.5, Table 5.15).

- (viii) It was discovered that apart from the significant influence of customers' perceptions of ISPs' service performance on customer satisfaction, which leads to behavioural intention, the issue of prices of services can also hinder users' Internet service uptake (usage) or make customers switch from one particular ISP to another. So, ISPs should ensure that their services are not just of good quality only, but they should also be made affordable for customers. This will help to enhance users' Internet uptake, obtaining quality services at an affordable rate (Section 5.3.6).
- (ix) After the analysis or testing of the conceptual framework, a revised Framework for Evaluating the Extent to which Users' Internet Service Uptake is influenced by Customer Perceptions of Quality Internet Services was provided and is indicated in Figure 6.1 of Section 6.7.

6.13 CONCLUSION

From the findings, it was clear that the service models considered in this study are good instruments to measure service performance within the context of the ISP sector. By evaluating the perceptions of customers, ISPs' service performance has a positive relationship with customer satisfaction (Umer, 2016) as well as users' Internet service uptake. Evidence from the study shows that ISPs must improve service performance on

the key dimensions indicated in this research in order to increase customer satisfaction and behavioural intention, since customers expect more, irrespective of what they have been getting. This will enable ISPs to maintain a high level of competitiveness.

6.14 RECOMMENDATION FOR FUTURE RESEARCH

A similar study be conducted in other regions and countries especially in developed countries to compare the application of the different models considered in this research. The review of literature in Section 2.6 identified issues that limit Internet service provision, which can serve as moderators. These include Internet bandwidth; price of Internet users' access; Internet backbone connectivity infrastructure; policy, legal and regulation; and digital skills/literacy. This research has tested the interactions of two of these moderators with ISPs' service performance. The two are "Internet bandwidth" and "prices of Internet users' access". The remaining other moderators are recommended for future research study. That is:

- (i) Examine the extent to which the interaction of ISPs' service performance and moderators (i.e., Internet backbone connectivity infrastructure; policy, legal and regulation; and digital skills/literacy) influence customer satisfaction.
- (ii) Determine the extent to which customer satisfaction mediates the moderated relationships between ISPs' service performance and behavioural intention of customers, considering the above moderators.

Also, how customers' demographic influences Internet service uptake in terms of quality Internet services can be considered for future study.

REFERENCES

- Aaker, D. A. & Jacobson, R. (1994). Study shows brand-building pays off for stockholders. *Advertising Age*. 65(30): 18-20.
- Abdul, F. A., Salman, A. & Olota, O. O. (2014). Impact of Customer Satisfaction on Mobile Telecommunication Service Provider. *JORIND*. 12(2): 1596-8308.
- Abdul-Hameed, T. A. (2014). A Study on the Management of Internet Bandwidth in Selected Universities in South Western Nigeria.
- Abrahams, N. and Lennon, J. (2018): Australia: Data breaches and privacy issues on the rise.
- Abdolvand, N., Charkari, M. and Mohammadi, R. (2006). Technical model for improving customer loyalty with m-commerce: mobile service providers. *International Journal on Computer Science*
- Abuja Facts (2015). Top 5 Cities to Do Business in Nigeria. ABUJA is 2nd.
- Adekeye, F. (2008). Motion Without Movements Tell. 29(1): 24-25.
- Adekoya, J., Kehinde-Phillips, O. and Odukoya, A. M. (2011). Geological Distribution of Mineral Resources in Southwestern in Nigeria. *Journal of Mining and Geology* 47: 1–13.
- Adekunmisi, S. R., Ajala, E. B. and Iyoro A. O. (2013) Internet Access and Usage by Undergraduate Students: A Case Study of Olabisi Onabanjo University, Nigeria. *Library Philosophy and Practice*<http://digitalcommons.unl.edu/libphilprac/ISSN1522-0222>.
- Adepetun, A. (2017). *The Guardian Newspaper*. Five states record least Internet users in Nigeria.
- Adewale G. A., Joshua O. I. and Comfort A. A. (2021). Materials-to-product potentials for sustainable development in Nigeria, *International Journal of Sustainable Engineering*, 14:4, 664-671, DOI: 10.1080/19397038.2021.1896591
- Adeyemi, O. A, Ola, O. S and Oyewole, F. A (2014). Internet Banking Functionality in Nigeria and Outcomes of Customer Satisfaction: An Empirical Investigation. *International Journal of Academic Research in Business and Social Sciences* August 2014, Vol. 4, No. 8 ISSN: 2222-6990. DOI:10.6007/IJARBSS/v4-i8/1084 URL:<http://dx.doi.org/10.6007/IJARBSS/v4-i8/1084>
- Adeyeri O. E, Akinsanola A.A and Ishola K. A (2017b). Investigating surface urban heat island characteristics over Abuja, Nigeria: Relationship between Land Surface Temperature and Multiple Vegetation Indices. *Remote Sensing Applications: Society and Environment* 7 (2017) 57.
- Adeyeri, O. E., Okogbue, E.C., Akinluyi, F.O. and Ishola, K.A. (2017a). Spatio-Temporal Trend of vegetation Cover over Abuja Using Landsat Datasets. *Int. J. Agric. Environ. Res.*, Volume: 03 (Issue: 03) (May-June 2017).

- Adil, M., Al Ghaswyneh O. F. M. and Albkour A. M. (2013). SERVQUAL and SERVPERF: A Review of Measures in Services Marketing Research. *Global Journal of Management and Business Research Marketing*, Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA). 13(6): 2249-4588.
- Adomi, E.E. and Kpangban E. (2010) Application of ICTs in Nigerian Secondary Schools. Head, Department of Library and Information Science and Department of Science Education Delta State University, Abraka, Nigeria. *Library Philosophy and Practice* 2010 ISSN 1522-0222.
- African Economic Outlook (2012): Technology Infrastructure Services in Africa (Connecting Africa to the World).
- Africa Policy Review (2018). Connecting the next billion: benefits, challenges and policies of expanding affordable internet access in Africa. A4AI ANALYSISICT.
- Agbetuyi, P. A. and Oluwatayo, J. A. (2012). Information and Communication Technology (ICT) in Nigerian Educational System Faculty of Education, Ekiti State University, Ado-Ekiti, Nigeria. *Mediterranean Journal of Social Sciences*. 3(3):1-10.
- Agyapong G. K. Q (2011). _The Effect of Service Quality on Customer Satisfaction in the Utility Industry—A Case of Vodafone (Ghana). DOI: 10.5539/ijbm.v6n5p203
- Airtel Nigeria (2017). Data Tariff Plans.
- Ajuwon, G. A. (2011). Internet Accessibility, Demographic and Motivational Factors Influencing Utilization of Internet Health Information Resources Among Resident Doctors in Tertiary Health Institutions in South Western Nigeria. A PhD Pre-Field Seminar Presented to the Department of Library, Archival and Information Studies, University of Ibadan, Ibadan.
- Ajzen, I. (1985). From intentions to action: A Theory of Planned Behaviour. In J. Huhl, & J. Beckman (Eds.), *Will; Performance; Control (Psychology); Motivation (Psychology)* (pp. 11-39). Berlin and New York: Springer-Verlag.
- Ajzen, I. (1988). *Attitudes, Personality, and Behaviour*. Chicago: Dorsey Press.
- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes*, 50(2): 179-211.
- Akamai (2017). State of the Internet. Q1 [2017 Report]. Available at: [Error! Hyperlink reference not valid.](#) Accessed 28 February 2018]
- Akinsola O.S., Herselman M. E. and Jacobs S. J. (2005): ICT provision to disadvantaged urban communities. A study in South Africa and Nigeria *International Journal of Education and Development using Information and Communication Technology, (IJEDICT)*, 2005, Vol. 1, Issue 3, pp. 19-41, Tshwane University of Technology, South Africa.

- Akroush, M.N. and Mahadin, B.K. (2019). An intervariable approach to customer satisfaction and loyalty in the internet service market. *Internet Research*, Vol. 29 No. 4, pp. 772-798. <https://doi.org/10.1108/IntR-12-2017-0514>.
- Akunyili, D. (2010). *ICT and e-Government in Nigeria: Opportunities and Challenges*. An address delivered at World Congress on Information and Technology, Amsterdam, Netherlands.
- Akwaja, C. (2017). Poor ICT Infrastructure in Abuja Worries FCT Minister, NCC Boss. *Leadership Newspaper*. Available at: <http://leadership.ng/2017/08/29/poor-ict-infrastructure-abuja-worries-fct-minister-ncc-boss/> [Accessed 20 October 2018]
- Alabar, T. T., Egena, O. and Gbande, R. I. (2014). Service Quality and Customer Satisfaction in Nigerian Mobile Telephony. *2014 3rd International Conference on Business, Management and Governance IPEDR* 82(10): 77-83.
- Alabi, S. (2017). President Buhari's Secret War on Free Speech by Sodiq Alabi. *Paradigm Initiative*. Available at: <https://paradigmhq.org/president-buharis-secret-war-on-free-speech/> [Accessed 18 October 2018]
- Al-Fadhli, S. (2011). Critical success factors influencing e-commerce in Kuwait. *Journal of Internet Banking and Commerce*, 16(1). 1-7.
- Al-Hashedi, A. H. and Abkar, S. A. (2017). The Impact of Service Quality Dimensions on Customer Satisfaction in Telecom Mobile Companies in Yemn. *American Journal of Economics*, 7(4): 186-193.
- Ali N. I., Samsuri S., Sadry M., Brohi I. A, and Shah A. (2016). Online Shopping Satisfaction in Malaysia: A Framework for Security, Trust and Cybercrime. *2016 6th International Conference on Information and Communication Technology for the Muslim World (ICT4M)*.
- Ali, R., Leifu, G., YasirRafiq, M. and Hassan, M. (2015). Role of Perceived Value, Customer Expectation, Corporate Image and Perceived Service Quality on the Customer Satisfaction. *The Journal of Applied Business Research* 31(4): 100-124.
- Alimi I. A. and Popoola J. J. (2015). The Growth and Impact of Information and Communication Technologies in Africa. *International Journal of Electronics and Electrical Engineering* 3(1): 1-10.
- Alison-Madueke, D. 2009. *Opportunities in Nigeria's Minerals Sector Ministry of Mines and Steel Development*. Nigeria: Abuja.
- Aljasser, I. A. and Sasidhar, B. (2016). Bank Customers' Perception of Service Quality and Customer Satisfaction in Saudi Arabia. *European Journal of Business and Social Sciences*, 4(11): 130-141.
- Allen, M. (2017). *The sage encyclopedia of communication research methods* (Vols. 1-4). Thousand Oaks, CA: SAGE Publications, Inc doi: 10.4135/9781483381411

- Alliance for Affordable Internet - A4AI (2014). A global coalition to make broadband affordable for all. Available at: <http://a4ai.org/affordability-report/>
- Alliance for Affordable Internet - A4AI (2017). 2017 Affordability Report A global coalition working to make broadband affordable for all- A global coalition working to make broadband affordable for all. Available at: <http://1e8q3q16vyc81g8l3h3md6q5f5e.wpengine.netdna-cdn.com/wp-content/uploads/2017/02/A4AI-2017-Affordability-Report.pdf> [Accessed 15 November 2018]
- Alliance for Affordable Internet - A4AI (2018). 2018 Affordability Report. Available at: <https://a4ai.org/affordability-report/report/2018/> [Accessed 16 March 2019]
- Almhana, J. and Liu, Zikuan. (2012). P2P streaming; Impact of bandwidth throttling on QoS. 10.1109/ICCNC.2012.6167539.
- Alton, L. (2017). The 6 Biggest Internet Problems We Need to Solve. June 1, 2017.
- American Heritage (2005) New Dictionary of Cultural Literacy, Third Edition, 2005 by Houghton Mifflin Company. Published by Houghton Mifflin Company.
- Amin M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. International Journal of Bank Marketing. ISSN: 0265-2323
- Aminu, S. A. (2013). Challenges Militating against Adoption of Online Shopping in Retail Industry in Nigeria. Doctoral Research Student Department of Marketing Lagos State Polytechnic, Isolo Campus, Lagos State. Journal of Marketing Management 1(1): 23-33. American Research Institute for Policy Development, www.aripd.org/jmm.
- Anastas, J. W. and MacDonald, M. L. (1994). Research design for the social work and the human services. New York, Lexington.
- Andaleeb, S. S. and Basu, A K (1994). Technical Complexity and Consumer Knowledge as Moderators of Service Quality Evaluation in the Automobile Service Industry. Journal of Retailing, 70(4), 367-81.
- Andreassen, T.W. and Lindestad, B. (1998). The Impact of Corporate Image in the Formation of Customer Loyalty. Journal of Service Research, 1(1): 1-10
- Anderson, R.E. (1973). Consumer dissatisfaction: The effect of disconfirmed expectancy on Perceived Product Performance. Journal of Marketing Research, 10(1): 38-44.
- Anderson, E. W., and Sullivan, M. W. (1993). The Antecedents and Consequences of Customer Satisfaction for Firms. Marketing Science, 12(2), 125-143.
- Anderson, E. W, Fornell, C. and Lehmann, D. R. (1994). Customer Satisfaction, Market Share, and Profitability: Findings from Sweden, Journal of Marketing, 58(3): 53-66.
- Anderson R. E. and Srinivasan S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. First published: 17 January 2003. <https://doi.org/10.1002/mar.10063>

- Anderson, K. (2009). *Ethnographic Research: A Key to Strategy*. Harvard Business Review from the March 2009 Issue.
- Andrews, J. (2016). FCT Minister Harps on Development of Satellite Towns. <http://www.thisdaylive.com/index.php/2016/03/29/>
- Andrianaivo, M. and Kpodarl, K. (2011). IMF Working Paper AFR - ICT, Financial Inclusion, and Growth: Evidence from African Countries:
- Ang, P. H. and Nadarajan, B. (n.d). Issues in the Regulation of Internet Quality of Service. Available at: <https://www.isoc.org/inet97/proceedings/B1/B11.HTM> [Accessed 14 September 2018]
- Angelova B. and Zeqiri, J. (2011). Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI Model). *International Journal of Academic Research in Business and Social Sciences*, 1(3): 232-250.
- Ani, O. E. (2005). Evolution of virtual libraries in Nigeria. A myth or reality? *Journal of Information Science*, 31(1):66-69.
- Anie, S. O. (2011). The Economic and Social Benefits of ICT Policies in Nigeria. 1522-1522. *Library Philosophy and Practice* 2011.
- Anindya G. and Vilma T. (2016). Toward A Digital Attribution Model: Measuring the Impact of Display Advertising on Online Consumer Behaviour 1 *MIS Quarterly* Vol. 40 No. 4, pp. 1-XX/December 2016.
- ANRT (2016). Survey on ICT access and usage by households and individuals in Morocco, 2015 (12th Edition), April 2016. <https://www.anrt.ma/sites/default/files/publications/enquetetic2015en0.pdf>.
- Anunobi, C. V. and Mbagwu F. C. (2009) Research Paper on Determinants of Internet use in Imo State, Nigeria *Educational Research and Review* Vol. 4 (9), pp. 436-442, September, 2009.
- Apăvăloaie E. (2014). The Impact of the Internet on the Business Environment. *Procedia Economics and Finance* 15. DOI: 10.1016/S2212-5671(14)00654-6.
- Armitage, C. J. (2007). Effects of an implementation intention-based intervention on fruit consumption. *Psychology & Health*, 22, 917-928.
- Arokiasamy, A. A. and Abdullah, A. G. (2013). Service Quality and Customer Satisfaction in the Cellular Telecommunication Service Provider in Malaysia. *Journal of Arts, Science & Commerce*. 2231-4172. *International Refereed Research Journal*, 4(1): 1-10.
- Asfour H. K. and AL-Haddad S. I. (2014). The Impact of Mobile Banking on Enhancing Customers' E-Satisfaction: An Empirical Study on Commercial Banks in Jordan *International Business Research* 7(10):145-169 ·DOI: 10.5539/ibr.v7n10p145

- Asmussen, B., Harridge-March, S., Occhiocupo, N. and Farquhar, J. (2013). The multi-layered nature of the internet-based democratization of brand management. *J. Bus.Res.*66,1473–1483.
- Association of Licensed Telecommunications Operators of Nigeria (2010). Paperwork by Association of Licensed Telecommunications Operators of Nigeria (ALTON) on submissions to the Draft National Environmental (Standards for Telecommunications Facilities) Regulations 2010.
- Asubonteng, P., McCleary, K. J. and Swan, J. E. (1996). SERVQUAL revisited: a critical review of service quality, *Journal of Services Marketing*. 10(6): 62-81.
- Athanassopoulos, A. D. (2000). Customer Satisfaction Cues to Support Market Segmentation and Explain Switching Behaviour. 191-207.
- Atkinson, R. D. (2009). The Role of Competition in a National Broadband Policy.
- Au-Yeung, J., Vallejo Gomez, I. and Howell, P. (2003). Exchange of dis-fluency from function words to content words with age in Spanish speakers who stutter. *Journal of Speech, Language and Hearing Research*, 46, 754-765. 45-65.
- Awoke H. M. (2015). Service Quality and Customer Satisfaction: Empirical Evidence from Saving Account Customers of Banking Industry. *European Journal of Business and Management*. www.iiste.org ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.7, No.1, 2015
- Aydin, S. and Özer, G. (2005). The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication market. *Eur. J. Marketing* 39(7/8), 910–925.
- Ayyash, M. M. (2021). Identifying Information Quality Dimensions That Affect Customers Satisfaction of E-Banking Services. Available at : https://www.researchgate.net/publication/288436876_Identifying_information_quality_dimensions_that_affect_customer_s_satisfaction_of_e-banking_services [Accessed 24 Feb 2021].
- Babakus, E. & Boller, G. W. (1992). An empirical assessment of the SERVQUAL Scale. *Journal of Business Research*, 24(2): 253-68.
- Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behaviour, *Social Psychology Quarterly*, 55(2): 178-204.
- Bahrini R. and Qaffas A. A. (2019). Impact of Information and Communication Technology on Economic Growth: Evidence from Developing Countries. *Economies* 2019, 7(1), 21; <https://doi.org/10.3390/economies7010021>.
- Bajpai, N. (2011). *Business Research Methods*. Pearson Education India.
- Baker, D. A., and Crompton, J. L. (2000). Quality, satisfaction and behavioural intentions. *Annals of Tourism Research*, 27(3), 785–804.

- Baker S. E. and Edwards R. (2012). How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research. National Centre for Research Methods Review Paper.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice Hall.
- Bayo, I. Eyitope, O. and Idowu, B. (2003). Information and Communication Technology in Nigeria, the Health Sector Experience. Journal of Information Technology Impact Vol. 3, No. 2, pp. 69-76, 2003. Obafemi Awolowo University Nigeria.
- Bebli R. S. (2013). The Impact of Internet banking service quality on customer satisfaction in the banking sector of Ghana. Thesis for the Master's degree in Business Administration. School of Management Blekinge Institute of Technology.
- Ben-Avie, J. (2017). Barriers to Internet access in Africa revealed. Biz Community- IT, Telecommunications and Internet – Internet news dated 2 Aug 2017 – By Senior Global Policy Manager at Mozilla.
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis, Nursing Plus Open, Volume 2, 2016, Pages 8-14, ISSN 2352-9008, **Error! Hyperlink reference not valid.**10.1016/j.npls.2016.01.001.
- Bentley W. (1999 – 2015) Bentley Evolution C-band Satellite Internet Service. Bentley Walker Ltd. | Elm Grove, Hayling Island, Hampshire, PO11 9EW, UK. Available at: <http://www.bentley-walker.com/products/w2acbandevolution>. [Accessed 22 April 2015]
- Bernard, A. and Addison, W. (1993). By Vinton Cerf, as told to Bernard Aboba. This article appears in The Online User's Encyclopedia, by Bernard Aboba, Addison-Wesley.
- Berg, B.L. (2001). Qualitative research methods for the social sciences Allyn and Bacon, Boston (2001)
- Berne, C. (1997). Modelizacion de la Poscompra: Satisfacciony Lealtad. In J. M. Mugica Grijalva and S. Ruiz de Maya (Eds), El Comportamiento del Consumidor, Cap. 5, Ariel Economia, Barcelona, 163-180.
- Bhutan, T. (2009) Consultation Paper on ICT Infrastructure Sharing. Info Comm and Media Authority Royal Government of Bhutan Thimphu: Bhutan September 2009.
- Biztech (2012) Nigerian Telecoms Slam Multiple Taxes by Biztech Africa March 16, 2012.
- Blem, N (1995). Service Please South Africa, South Africa: Creda Press (PTY) LTD.
- Bolton, R. N. & Drew, J. H. (1991). A Multistage Model of Customers' Assessments of Service Quality and Value. Journal of Consumer Research, 17(4): 375-384.
- Bolton, R.N. (1998). A Dynamic Model of the Duration of the Customer's Relationship with a Continuous Service Provider: The Role of Satisfaction. Marketing Science, Vol. 17 No 1, pp.

- Bloemer, J., Ruyter, K. and Peeters, P. (1998), Investigating drivers of bank loyalty: The complex relationship between image, service quality and satisfaction. *International Journal of Bank Marketing*, Vol. 16, No.6 & 7, pp. 276-86.
- Bola and Ogunlade (2012). *International Journal of Humanities and Social Science* Vol. 2 No. 17; September 2012 254; Accessibility and Utilization of Internet Service by Graduate Students in University of Lagos, Nigeria; Department of Science Education University of Ilorin, Nigeria.
- Boulding, W., Kalra, A., Staelin, R. and Zeithaml, V. (1993). A dynamic process model of service quality: from expectations to behavioural intentions. *Journal of Marketing Research*, Vol. 30, pp. 7-27.
- Boyd, B. (2017). Urbanization and the Mass Movement of People to Cities posted by Bret Boyd [January 17, 2017]. Grayline Capital LCC, Copyright 2011 – 2017. Available at: <https://graylinegroup.com/urbanization-catalyst-overview/> [Accessed: 18 December 2017].
- Boyatzis, Richard (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Brady, M K, Cronin, J and Brand, R. R. (2002). Performance Only Measurement of Service Quality: A Replication and Extension. *Journal of Business Research*,55(1), 17-31.
- Brady, M. K., and Cronin, J. J. (2001). Customer Orientation: Effects on Customer Service Perceptions and Outcome Behaviours. *Journal of Service Research*, 3(3), 241-251. doi:10.1177/109467050133005.
- Braun, V. and Clarke, V. (2006). "Using thematic analysis in psychology". *Qualitative Research in Psychology*. 3 (2): 77–101. DOI:10.1191/1478088706qp063oa.S2CID10075179.
- Braun, Virginia; Clarke, Victoria (2019). "Thematic analysis". *Handbook of Research Methods in Health Social Sciences*. Hoboken, New Jersey: Springer: 843–860. DOI: 10.1007/978-981-10-5251-4_103. ISBN 978-981-10-5250-7.
- Brian B. (1995-2000): *Data Communications, Part 1: Introduction to Communications*. Available at: http://uva.ulb.ac.be/clt_courseware/datacomm/dc_001.htm, [Accessed 27 May, 2014].
- Broadband Commission. (2014). *The State of Broadband 2014: Broadband for all*. Geneva.
- Brown, S.W. & Bitner, M.J. (2007). Mandating a service revolution for marketing. in Lush, R.F. & Vargo, S.L. (Eds). *The Service-Dominant Logic of Marketing: Dialog, Debate and Directions* (pp. 393-405). Armonk, NY: M.E. Sharp.
- Brown, I., Letsididi, B. and Nazeer, M. (2009). Internet Access in South African Homes: A Preliminary Study on Factors Influencing Consumer Choice. *The Electronic Journal on Information Systems in Developing Countries* 38(2) 1 – 13.

- Bryman, (2004). *Quantity and Quality in Social Research*. London: Routledge, 2nd Edition.
- Bryson, A. and Curry, A. (2001). Service improvements in public services using SERVQUAL, *Managing Service Quality*. 11(6): 389-401.
- Bryman, A. and Bell, E. (2007) *Business research methods*. Oxford: Oxford university press.
- Bughin, J., Corb, L., Manyika, J., Nottebohm O., Chui M. Barbat B. McKinsey and Said R. (2011). *The impact of Internet technologies: Search*. Mckinsey & Company, July 2011.
- Buhaljoti, A. (2019). Customer Satisfaction on Internet Service Providers in Albania. *European Scientific Journal, ESJ*, 15(28), 235. <https://doi.org/10.19044/esj.2019.v15n28p235>
- Buntz, B. (2016). Top 10 Reasons People Aren't Embracing the IoT. Internet of Things Institute, April 20, 2016. Available at: <http://www.ioti.com/security/top-10-reasons-people-aren-t-embracing-iot> [Accessed 20 December 2017].
- Burke S. J. (2011) Competitive positioning strength: market measurement, *Journal of Strategic Marketing*, 19:5, 421-428, DOI: [10.1080/0965254X.2011.581385](https://doi.org/10.1080/0965254X.2011.581385)
- Business and Finance (2012): [on-line]. Available at: <http://www.thenigerianvoice.com/news/84025/22/airtel-nigeria-deepens-coverage-with-launch-of-375.html> [Accessed 4 April 2015].
- Business Insider (2014). Available at: <http://www.businessinsider.com/internet-speeds-in-The-us-and-around-the-world-2014-5#ixzz3aFRV4E1S> [Accessed 7 May 2015].
- Business List (2009-2017). Organisations in Abuja, Nigeria. Available at: <https://www.businesslist.com.ng/category/organizations/22/city:abuja> [Accessed 14 November 2017].
- Buttle, F. (1996). SERVQUAL: Review, critique, research agenda, *European Journal of Marketing*.
- Calandrelli, E. (2015). The Corporate Battle for Global Internet Connectivity. Available at: <https://Techcrunch.Com/2015/09/18/The-Corporate-Battle-For-Global-Internet-Connectivity/> [Accessed 22 December 2017]
- Campos, D. F. and Marodin, T. G. (2012). Perceptions of Quality and Expectations of Hotel Services, *Journal of Operations and Supply Chain Management*, 5(1): 82-99.
- Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing*, Vol. 66, No.1, pp. 33-55.
- Carr, V. H. Jr. (2007). *Technology Adoption and Diffusion*. Available at: <http://www.au.af.mil/au/awc/awcgate/innovation/adoptiondiffusion.htm> [Accessed 16 April 2015].

- Carter, N. (1991), Learning to Measure Performance: The Use of Indicators in Organizations, *Public Administration*, Vol. 69, pp. 85–101.
- Central Bank of Nigeria (2015). Available at: <http://www.tradingeconomics.com/nigeria/gdp-growth-annual> [Accessed 17 March 2015].
- Chakrapani, C. (2001). *How to Measure Service Quality and Customer Satisfaction: The Informal Guide to Tools and Techniques*, Illinois: South – Western.
- Chalita, S. (2012): Thesis for the Degree of Doctor of Philosophy, Understanding the digital divide: Empirical studies of Thailand. Department of Technology Management and Economics, Division of Technology and Society, Chalmers University of Technology, Göteborg, Sweden. Charter Institute for IT (2009). What future for internet service providers?
- Chang, C and Chiang, L. (2006) Social Security Expenditure and Economic Growth: A heterogeneous panel application. *Journal of Economic Studies*, Emerald Group Publishing, Vol.33 (5).
- Chatzigeorgiou, C. Christou, E. and Simeli, I. (2017): Delegate satisfaction from conference service quality and its impact on future behavioural intentions, In: Sarmaniotis, C. Wright, G. (Ed.): *Proceedings of ICCMI 2017*, Thessaloniki, Greece, 21-23 June 2017, ISBN 978-960-287-156-0, Alexander Technological Institute of Thessaloniki, Thessaloniki, pp. 532-544, <http://dx.doi.org/10.5281/zenodo.3756061>.
- Chawla, D. and Joshi, H. (2018). The Moderating Effect of Demographic Variables on Mobile Banking Adoption: An Empirical Investigation, *Global Business Review*, International Management Institute, Vol. 19(3_suppl), pages 90-113, June.
- Chen Yuan-Ze, J.S and Ching R. K.H. (2007). The Effects of Mobile Customer Relationship Management on Customer Loyalty: Brand Image Does Matter. *Proceedings of the 40th Hawaii International Conference on System Sciences – 2007*.
- Cheng, T.C.E., Lai, L.C.F. and Yeung, A.C.L. (2008). The Driving Forces of Customer Loyalty: A Study of Internet Service Providers in Hong Kong. *International Journal of E-Business Research* Vol. 4, No. 4.
- Cherry, K. (2017). What is a Sample, updated May 18, 2017. Available at: <https://www.verywell.com/what-is-a-sample-2795877> [Accessed 25 November 2017]
- Cherryholmes, C. H. (1992, August–September). Notes on pragmatism and scientific realism. *Educational Researcher*, 14, 13–17.
- Chien M. C., Hong T. L, Sheu H. C. and Tsun H. H.(2010). Tourist behavioural intentions in relation to service quality and customer satisfaction in Kinmen National Park, Taiwan <https://doi.org/10.1002/jtr.810>
- Chigbu, E. D. and Dim C.L (2012). Connectivity and Accessibility in Nigerian University Libraries: A Survey of Access, Usage, and Problems in the University of Nigeria,

- Chinwuba, M. S. and Egene O. (2013). Evaluating Customer-Perceived Service Quality and Customer Satisfaction in the Nigerian Banking Industry. *Far East Journal of Psychology and Business* Vol. 11 No. 3 June 2013.
- Choi, T. Y., and Chu, R. (2001). Determinants of hotel guests' satisfaction and repeat patronage in the Hong Kong hotel industry. *Hospitality management*, 20, 277–297.
- Christian, C. (2005). Telkom's ADSL Now Officially Over 1000% More Expensive than Other Countries.
- Chris, O. A. (1998). The Role of Internet Connectivity in Nigeria, *CWL Newsletter*, July – Sept., 98. Pg 3.
- Chris R. (2010). Internet Capacity, Network Traffic and Net Neutrality. *International Journal of Management & Information Systems – Fourth Quarter 2010 Volume 14, Number 59*.
- Chu, W., Song, M. and Choi, B. (2013). Post-purchase disadvantages of a less preferred and how they can be overcome: An examination of regret and attribution. *Journal of Applied Social Psychology*. 43. 10.1111/jasp.12014.
- Churchill, G. A. Jr. & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*. 19, 491-504.
- Chukwu, B. I., & Uzoma, I. C. (2014). Impact of Social Media Networks on Consumer Patronage in Nigeria: A Study of Jumia and Konga Nigeria Limited. *European Journal of Business and Management*, 6(30).
- Ciboh R. (2007). "Mass Media in Nigeria: Perspective on Growth and Development", Makurdi Aboki Publishers.
- City Population (2017). Available at: <http://www.citypopulation.de/php/nigeria-admin.php?adm1id=NGA015> [Accessed 30 July 2017].
- Clarke, G. R. G., and Wallsten, S. (2006). Has the Internet Increased Trade? Developed and Developing Countries Evidence. *Economic Enquiry*, 44(3), 465-484.
- Cloud flare (2016). The Relative Cost of Bandwidth around the world. Available at: blog.cloudflare.com/therelative-cost-of-bandwidth-around-the-world [Accessed 12 September 2016].
- CNS (2014). Importance of the Internet for Businesses, 11th October, 2014. Available at: <https://www.cns-it.co.uk/importance-internet-businesses/> [Accessed 20 December 2017].
- Cohen, L., Manion, L. and Morrison, K. (2007). *Research methods in education*. 6th ed. London: Routledge.

- Collins English Dictionary (1998 – 2012) Complete & Unabridged 2012 Digital Edition
© William Collins Sons & Co. Ltd. 1979, 1986 © HarperCollins. Publishers 1998, 2000, 2003, 2005, 2006, 2007, 2009, 2012.
- Collins, H. (2010). *Creative Research: The Theory and Practice of Research for the Creative Industries* AVA Publications, p.38.
- Collis, J. & Hussey, R. (2003). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*, Palgrave Macmillan, Basingstoke.
- Communication Services Tax Bill (2015). Available at: <http://bit.ly/29HIOth> [Accessed 29 January 2019].
- Compeau, D. R and Higgins, CA (1991). A Social Cognitive Theory perspective on Individual reactions to computing technology.' paper presented to Proceedings of the 12th International Conference on Information Systems, New York, NY.
- CompuWorld (2014). Available from <http://www.compuworld.com.ng/>. [Accessed: 12 May 2015]
- Cox, A. and Campbell, M. (1999). Multi-User Dungeon. Available from <http://mud.co.uk/richard/ifan294.htm> [Accessed: 25March 2016]
- Coyne, K. (1989). Beyond service fads- meaningful strategies for the real world, *Sloan Management Review*, Vol. 30, Summer, pp. 69-76.
- Cook, D. A., and Beckman, T. J. (2006). Current Concepts in Validity and Reliability for Psychometric Instruments: Theory and Application. *The American Journal of Medicine*, 119, 166.e7-166.e16.
- Coste, A. and Tudor, A. T. (2013). Service Performance - Between Measurement and Information in the Public Sector. *Procedia - Social and Behavioural Sciences* 92 (2013) 215 – 219.
- Creswell, J. W. (2003). *Research design: Qualitative and quantitative approaches* (2nd Ed.). London: SAGE Publication.
- Creswell, J.W., Plano Clarke, V. L., Gutmann, M.L. and Hanson, W.E. (2003). *Advance Mixed Methods Research designs*. Thousand Oak: Sage.
- Creswell, J.W. and Plano Clarke, V.L. (2007). *Designing and Conducting Mixed Methods Research*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative and quantitative approaches* (3rd Edition). London: SAGE Publications Inc.
- Creswell, J. W. (2014). *Research design: Qualitative and quantitative approaches* (4th Edition). London: 2014 SAGE Publications Inc.
- Creswell, J. W. and Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). London: SAGE Publication.

- Cronin, J. and Taylor, S A. (1992). Measuring Service Quality: A Re-examination and Extension, *Journal of Marketing*, 56 (July), 55-67.
- Cronin, Jr. J. Joseph and Taylor, Steven A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, Vol. 58, pp. 125–31.
- Cronin, J, Brady, M. K. and Hult, T. M. (2000). Assessing the Effects of Quality, Value and Customer Satisfaction on Consumer Behavioural Intentions in Service Environments, *Journal of Retailing*, 76(2), 193-218.
- Crossan, F. (2003). Research philosophy: towards an understanding. *Nurse Res.* 2003; 11(1):46-55. Review. PMID: 14533474.
- Crotty, M. (1998). *The foundations of Social Research* London: Sage.
- Culiberg, B and Rojšek, I. (2010). Identifying service quality dimensions as antecedents to customer satisfaction in retail banking, *Economic and Business Review*, 12(3), 151–166.
- Dabholkar, P A, Shepherd, D C and Thorpe, D I (2000). A Comprehensive Framework for Service Quality: An Investigation of Critical, Conceptual and Measurement Issues through a Longitudinal Study. *Journal of Retailing*, 76(2), 139-73.
- Dalberg, (2013). Impact of the Internet in Africa. Establishing conditions for success and catalysing inclusive growth. Available at: http://www.impactoftheinternet.com/pdf/Dalberg_Impact_of_Internet_Africa_Full_Report_April2013_vENG_Final.pdf. [Accessed: 28 November 2017].
- Daly, J., Kellehear, A. and Gliksman, M. (1997). *The public health researcher: A methodological approach*. Melbourne, Australia: Oxford University Press. pp. 611–618. ISBN 978-01955407 58.
- Daniel, C.N. and Berinyuy, L.P. (2010). Using the SERVQUAL Model to assess Service Quality and Customer Satisfaction. Umea School of Business. Available at: <http://umu.diva-portal.org/smash/get/diva2:327600/FULLTEXT01.pdf> [Accessed 24 April 2016]
- Daniel L. (2002). Are Antecedents of Consumer Dissatisfaction and Consumer Attributions For Product Failures Universal?", in *NA - Advances in Consumer Research* Volume 29, eds. Susan M. Broniarczyk and Kent Nakamoto, Valdosta, GA: Association for Consumer Research, Pages: 312-317.
- Darlington, Y. & Scott, D. (2002). *Qualitative research in practice: Stories from the field*. Open University Press, Buckingham.
- Davis, C. H and Michelle, C. (2011). Q Methodology in Audience Research: Bridging the Qualitative/Quantitative 'Divide'? *Participations: Journal of Audience & Reception Studies* 8 (2), 559-593.

- Davis, F. D (1986): Technology Acceptance Model for Empirically Testing New End User Information Systems: Theory and Results. Doctoral Dissertation thesis, Massachusetts Institute of Technology. 1989, 'Perceived usefulness, perceived ease of use and user acceptance of information technology', MIS Quarterly, Vol. 13, no. 3, pp. 319-40.
- Davis, F. D, Bagozzi, R. P. and Warshaw, P. R (1989). User acceptance of computer technology: a comparison of two theoretical models, Management Science, Vol. 35, No.8, pp.982-1003.
- Davis, F. D (1993): 'User acceptance of information technology - system characteristics, user perceptions and behavioural impacts', International Journal of Man-Machine Studies, vol. 38, no. 3, pp. 475-87, viewed 12 March 2005, <<Go to ISI>://A1993KU59900007>.2004, CV-Fred Davis, 19 June 2004<http://www.instituteforstrategicclarity.org/member_info/CV_FredDavis.htm>.
- Debasish, S. S. and Dey, S. (2015). Customer Perceptions of Service Quality towards Luxury Hotels in Odisha Using SERVQUAL Model. International Journal of Research in Business Studies and Management Volume 2, Issue 9, September 2015, PP 1-9 ISSN 2394-5923 (Print) & ISSN 2394-5931 (Online).
- Demirguc-Kunt, A., and Klapper, L. (2012). Measuring Financial Inclusion. The Global Findex Database. Policy Research Working Paper.
- De Nederlandsche Bank (2016). Vision for the future of the Dutch insurance sector.
- Denscombe, M. (2007). The good research guide: for small-scale social research projects, 3rd Edition. The McGraw Hills, 2007.
- De Oña, R., Machado, J. L., De Oña, J. (2015). Perceived Service Quality, Customer Satisfaction and Behavioural Intentions: A Structural Equation Model for the Metro of Seville, Spain. Transportation Research Record Journal of the Transportation Research Board. 2538. 10.3141/2538-09.
- DePoy E. and Gitlin L. N. (2016) Introduction to Research - Understanding and Applying Multiple Strategies (Fifth Edition).
- DeVellis, R.F. (2012). Scale development: Theory and applications. Los Angeles: Sage.
- Devi, S. K. and Revathy B. (2011). Customers' Satisfaction with Service Quality of Internet Banking. International Journal of Business Policy and Economics Vol. 4, No. 1, (2011): 161-176.
- Dhurup, M., Surujlal J. and Redda E. (2014). Customer Perceptions of Online Banking Service Quality. Mediterranean Journal of Social Sciences MCSER Publishing, Rome-Italy Vol. 5 No 2 January 2014. DOI:10.5901/mjss.2014.v5n2p587.
- Dinu, G., (2005). Marketing pe Internet, www.internetworldstats.com/stats.htm.

- Dixit, S. K. (2013). A Study of Guest's Expectation and Perception of Hotel Service Quality: Case of Khajuraho, India. *Enlightening Tourism. A Path making Journal* 3 (2), 125-141.
- Donath, C. Winkler, A. Graessel, E. Luttenberger K. (2011). Day care for dementia patients from a family caregiver's point of view: a questionnaire study on expected quality and predictors of utilisation – Part II *BMC Health Services Research*, 2011 (11) (2011), pp. 1-7
- Dudovskiy, J. (2017). *Ultimate Guide to Writing a Dissertation in Business Studies Step by Step Assistance. Research Methodology*. Available at: <https://research-methodology.net/research-philosophy/epistemology/constructivism/> [Accessed 10 July 2017].
- Durodolu, O. O. (2016). Technology Acceptance Model as a predictor of using information system' to acquire information literacy skills. *Digital Commons@University of Nebraska – Lincoln Library Philosophy and Practice (e-journal) Libraries at University of Nebraska-Lincoln* November 2016.
- Durrance, J., Fisher, K. and Hinton, M. (2005). *How libraries and librarians help*. Chicago: American Library Association.
- Easton, V.J. and McColl, J. H. (1997). *Statistics Glossary V1.1*. Publisher's URL: <http://www.stats.gla.ac.uk/steps/glossary/>.
- Edgett, S. and Parkinson, S. (1993). *Marketing for Service Industries – A Review*. *The Service Industries Journal*, 13(3), 19-39.
- Eisingerich, A.B., Bell, S. J. (2008). Perceived service quality and customer trust does enhancing customers' service knowledge matter? *J. Serv. Res.* 10(3), 256–268.
- Elkind, D. (2005). *Response to Objectivism and Education*. *The Educational Forum* Vol. 69 ISS. 4, 2005.
- Eriksson K. L. and Vaghult A. L. (2000). *Customer Retention. Purchasing Behaviour Relationship Substance in Professional Services*. Available at: https://www.researchgate.net/publication/222532096_Customer_Retention_Purchasing_Behavior_and_Relationship_Substance_in_Professional_Services [Accessed 26 April 2016].
- Emwanta, M. and Nwalo K. I.N (2013) Full Length Research Paper Influence of computer literacy and subject background on use of electronic resources by undergraduate students in universities in South-Western Nigeria *International Journal of Library and Information Science* Vol. 5(2), pp. 29-42, February 2013.
- Erevelles, S., Srinivasan, S. and Rangel, S. (2003). *Consumer Satisfaction for Internet Service Providers: An Analysis of Underlying Processes*. *Information Technology and Management*. 4. 69-89. 10.1023/A: 1021828517151.

- Etikan, I., Musa S. A. and Alkassim R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics* 5(1):1, January 2016. DOI: 10.11648/j.ajtas.20160501.11
- Etisalat Nigeria (2017). Internet Data Plan. Available at: <http://www.etisalat.com.ng>. [Accessed 28 March 2017].
- Elliot, S., Li, G. and Choi, C. (2013). Understanding service quality in a virtual travel community environment. *J. Bus. Res.* 66, 1153–1160.
- Euromonitor (2010). World's Fastest Growing Cities are in Asia and Africa. Archived from the original on October 2015.
- European commission (2014). Available at: http://europa.eu/rapid/press-releaseMEMO-14-136_en.htm [Accessed 21 February 2018].
- European commission (2015a). Have your say on speed and quality: the European Commission launches a 360-degree review of telecom rules, Digital Single Market, Digi byte 11 September 2015. Available at: <https://ec.europa.eu/digital-single-market/en/news/have-your-say-internet-speed-quality-european-commission-launches-360deg-review-telecoms-rules> [Accessed 21 February 2018].
- European commission (2015b). Socio–Economic Benefits of High-Speed Broadband, EU Broadband Vision. EUROPEAN COMMISSION Directorate-General for Communications Networks, Content and Technology. Electronic Communications Networks and Services Broadband Brussels, B5/FM/IO. Brussels, 28/04/2015 DG CONNECT Unit B5 Broadband Authors: Ivette Oomens, Filippo Munisteri Contact: Amalia Lebu, tel. 032(2)2957971. Available at: <http://europedirectpuglia.eu/files/socio-economic-benefits-of-High-Speed-Broadband.pdf> [Accessed 21 February 2018].
- European Commission (2017). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. On the Mid-Term Review on the implementation of the Digital Single Market Strategy. A Connected Digital Single Market for All. {SWD (2017) 155 final} Brussels, 10.5.2017 COM (2017) 228 final. Available at: <https://ec.europa.eu/transparency/regdoc/rep/1/2017/EN/COM-2017-228-F1-EN-MAIN-PART-1.PDF> [Accessed 2 February 2019]
- Evbuomwan, G. O. (2016). Diversification of the Nigerian Economy: Agriculture and Solid Minerals as Panacea Bullion Publication. *Central Bank of Nigeria* 1: 50–69.
- Explorable.com (2009). Research Population. Nov 15, 2009 Explorable.com. Available at: <https://explorable.com/research-population> [Accessed 02 November 2017]
- Eze, T. C., Okpala, C. S. and Ogbodo, J. C. (2014). Patterns of Inequality in Human Development Across Nigeria's Six Geopolitical Zones. *Developing Country Studies* www.iiste.org ISSN 2224-607X (Paper) ISSN 2225-0565 (Online) Vol.4, No.8, 2014 97.

- Farrell, G. and Shafika, I. (2007). Survey of ICT and education in Africa: A summary report, based on 53 country surveys, Washington, DC: Info Dev/World Bank, 2007. Available at: <https://www.ghanaweb.com/GhanaHomePage/features/Improving-Internet-Accessibility-In-Rural-Communities-211533> [Accessed 02 February 2018].
- Fasae, J.K and Aladeniyi, F.S (2012) Internet Use by Students of Faculty of Science in Two Nigerian Universities. *Library Philosophy and Practice* 2012 ISSN 1522-0222.
- Fastmetrics (2017). Internet Speeds by Country/Region (Mbps). Available at: <https://www.fastmetrics.com/internet-connection-speed-by-country.php> [Accessed 28 December 2017].
- Federal Communications Commission, FCC (2019). Bridging the Digital Divide - News Archive. Available at: <https://www.fcc.gov/about-fcc/fcc-initiatives/bridging-digital-divide/bridging-digital-divide-news-archive> [Accessed 29 January 2019]
- Federal Government of Nigeria (2019). Federal Capital Territory (FCT). Available at: www.nigeria.gov.ng/index.php/2016-04-06-08-39-54/north-central/96-fct [Accessed 28 October 2019]
- Federal Networking Council (FNC) (1995). Available at: http://www.nitr.gov/fnc/Internet_res.aspx. [Accessed 20 May 2014].
- Federal Ministry of Communication Technology (2012). Available at: <http://commtech.gov.ng/index.php/the-ministry/about-the-ministry>. [Accessed 22 October 2014].
- Fen, Y. S. and Meillian, K. (2005). Service quality and customer satisfaction: Antecedents of customer's re-patronage, *Sunway Academic Journal*. Vol. 4, p.60-73.
- Field, A. (2005). *Discovering statistics using SPSS* (2nd edition). London: Sage Publications Ltd 2005, ISBN 0-7619-4452-4.
- FinIntell (2013). Telecoms: Customer Satisfaction Survey Springs up Surprises. Available at: <http://www.myfinancialintelligence.com/telecoms-and-it/telecoms-customer-satisfactionsurvey-springs-surprises/2013-02-05> [Accessed 14 November 2014].
- Firdous, S. and Farooqi, R. (2017). Impact of Internet Banking Service Quality on Customer Satisfaction. *Journal of Internet Banking and Commerce*, 22(1): 1-10.
- Fishbein, M and Ajzen I. (2010). *Predicting and Changing Behaviour*.
- Flickenger R., Belcher M., Canessa E. and Zennaro M. (2006). *How to Accelerate your Internet". Practical Guide, Bandwidth Management to Optimization Using Open-Source Software*. Publishers: INASP/ISBN 0-9778093-1-5. <http://bwmo.net/>.
- Fonseca-Hoeve, B., Marius, M., Osepa, S. Coffin, J. and Kende, M. (2017). *Unleashing the Internet in the Caribbean Removing Barriers to Connectivity and Stimulating Better Access in the Region* February 2017. Available at: <https://unctad.org/meetings/en/Contribution/dtleWeek2017c06-isocen.pdf> [Accessed 28 January 2019].

- Folkes, V. S. (1988). Recent Attribution Research in Consumer Behaviour: A Review and New Directions. *Journal of Consumer Research* Vol. 14, No. 4 (Mar., 1988), pp. 548-565.
- Folkes, V. (1984). Consumer Reactions to Product Failure: An Attributional Approach. *Journal of Consumer Research*. 10. 398-409.10.1086/208978.
- Fornell, C. (1992). A national customer satisfaction barometer: the Swedish experience. *J. Mark*, 56, 6-21.
- Freccia, D. M., Jacobsen, P. and Kilby, P. (2003). Exploring the Relationship between Price and Quality for the Case of Hand-Rolled Cigars. *The Volume*, 2003, Pages 169-189. [https://doi.org/10.1016/S1062-9769\(01\)00131-4](https://doi.org/10.1016/S1062-9769(01)00131-4)
- Freedom House (2017). Freedom on the net 2017. Morocco Country Profile. Obstacles to Access; Limit on Content; Violations of User Rights. Available at: [Error! Hyperlink reference not valid..org /report/freedom-net/2017/morocco#a1-obstacles](https://freedomhouse.org/report/freedom-net/2017/morocco#a1-obstacles) [Accessed 7 November 2019]
- Freedom House (2018). Freedom on the net 2018. Nigeria Partly free. Internet Freedom Score37/100. Available at: <https://freedomhouse.org/report/freedom-net/2018/nigeria> [Accessed 29 January 2019]
- Freedom House (2020). Obstacles to Access; Limit to Content; Violation of User Rights. Available at: <https://freedomhouse.org/country/nigeria/freedom-net/2020#A>. [Accessed 11 November 2020]
- Freitas, H., Oliveira, M., Jenkins, M. and Popjoy, O. (1998). The Focus Group, A Qualitative Research Method. ISRC, Merrick School of Business, University of Baltimore (MD, EUA), WP ISRC No. 010298, February 1998. 22 p.
- Gagliano, K.B. and Hathcote, J (1994). Customer Expectations and Perceptions of Service Quality in Retail Apparel Speciality Stores. *Journal of Services Marketing*, Volume.8, Issue No 1, pp. 60-69.
- Galetto, M. (2015). What is Customer Retention? Thought Leadership, June 15, 2015. Available at: <https://www.ngdata.com/what-is-customer-retention/> [Accessed 19 February, 2019]
- Gameli, A. (2011). Improving Internet Accessibility in Rural Communities -Feature Article of Sunday, 19 June 2011 Columnist: Adzaho, Gameli, 2011-06-19. Available at: <https://www.ghanaweb.com/GhanaHomePage/features/Improving-Internet-Accessibility-In-Rural-Communities-211533>. [Accessed 2 February 2018].
- Geldhof, G. J., Preacher, K. J., and Zyphur, M. J. (2014). Reliability estimation in a multilevel confirmatory factor analysis framework. *Psychological Methods*, 19(1), 72–91. <https://doi.org/10.1037/a0032138>.

- Gerpott, T.J, Rams, W. and Schinder, A. (2001). Customer retention, loyalty and satisfaction in the German mobile cellular telecommunications market. *Telecommunications policy*, 25, 249269.
- Gerpott, T.J. (2018), Relative fixed Internet connection speed experiences as antecedents of customer satisfaction and loyalty, *Management and Marketing. Challenges for the Knowledge Society*, Vol. 13, No. 4, pp. 1150-1173. DOI: 10.2478/mmcks-2018- 0029.
- Geyer, A. (2016). *The Growth Behaviour of Family Firms: Theoretical and Empirical Elaborations*. Springer, 22 Mar 2016 - Business and Economics.
- Ghotbabadi, A. R., Feiz, S. and Baharun, R. (2015). Service Quality Measurements: A Review. Universiti Teknologi Malaysia (UTM), Faculty of Management, 81310 UTM Skudai, Johor, Malaysia. *International Journal of Academic Research in Business and Social Sciences* February 2015, Vol. 5, No. 2 ISSN: 2222-6990. DOI: 10.6007/IJARBSS/v5-i2/1484 URL: <http://dx.doi.org/10.6007/IJARBSS/v5-i2/1>.
- Giese, J. and Cote, J. (2000). Defining Consumer Satisfaction. *Academy of Marketing Science Review*. 4. 1-24
- Gillham B. (2000). *The Research Interview*. Published 2000 – ISBN 0-8284-4797-X.
- Gillwald A., Mothobi O. and Rademan B. (2018). The State of ICT in South Africa. Policy Paper no. 5, Series 5: After Access State of ICT in South Africa https://researchictafrica.net/after-access-south-africa-state-of-ict-2017-south-africa-report_04/ July 2018.
- Girsang, M., Candiwan, J., Hendayani, R. & Ganesan, Y. (2020). Can Information Security, Privacy and Satisfaction Influence the E-Commerce Consumer Trust? *2020 8th International Conference on Information and Communication Technology (ICoICT)*, Yogyakarta, Indonesia, 2020, pp. 1-7, DOI:10.1109/ICOICT 49345.2020.9166247.
- Globacom Limited (2016). Data Plans. Available at: <http://www.gloworld.com/ng/personal/data/data-plans/> [Accessed 3 February 2017]
- Glaser, B. and Strauss, A. (1967). *The discovery of grounded theory: strategies for qualitative Research*. Weidenfeld and Nicolson, London.
- Golsäter, M., Sidenvall B., Lingfors H. and Enskär, K. (2011). Adolescents' and school nurses' perceptions of using a health and lifestyle tool in health dialogues. *Journal of Clinical Nursing*, 20 (2011), pp. 2573-2583.
- Gotlieb, J B, Grewal, D and Brown, S W (1994). Consumer Satisfaction and Perceived Quality: Complementary or Divergent Constructs, *Journal of Applied Psychology*, 79(6), 875-85.

- Graphic Online (2020). Govt to break monopoly in telecom sector, Business News Jun 08, 2020 by: Enoch Darfah Frimpong. Available at: [Error! Hyperlink reference not valid./govt-to-break-monopoly-in-telecom-sector.html](#)
- Green, J. & Thorogood, N. (2004). *Qualitative methods for health research*. London: Sage; 2004.
- Gremler, D. & Brown, S.W. (1999). The Loyalty Ripple Effect: Appreciating the Full Value of Customers, *International Journal of Service Industry Management*, 10 (3), pp.271-291.
- Gronroos, C. (1982). *Strategic Management and Marketing in Service Sector*, Marketing Science Institute, Cambridge, MA.
- Gromov, G. (1995-2011a). Internet Pre-History: Ancient Roads of Telecommunication and Computers. Available at: http://www.netvalley.com/intval_intr.html [Accessed 19 March 2014].
- Gromov, G. (1995-2011b). Internet and World-Wide Roads and Crossroads of the Internet History. Available at: http://www.netvalley.com/cgi-bin/intval/net_history.pl?sdf=1 [Accessed 19 March 2014].
- Gronroos, C. (1982). A service quality model and its marketing implications, *European Journal of Marketing*, 18(4) 36-44.
- Gronroos, C., (1984). A service quality model and its marketing implications. *European Journal of Marketing*; Vol. 18 ISS: 4, pp.36 – 44.
- Gronroos, C. (1988). Service Quality: The six criteria of good perceived service. *Review of Business*, 9(3), 10-13.
- Gronroos, C. (2000). *Service management and marketing*. Lexington Books, Lexington, MA.
- Gronroos, C. (2001). The perceived quality concept: A mistake. *Managing Service Quality*, 11(3): 150-152.
- Grounded Theory Institute (2008). What is Grounded Theory? Available at: <http://www.groundedtheory.com/what-is-gt.aspx> [Accessed 16 August 2017].
- GSMA Intelligence (2015). Analysis – Mobile Internet usage challenges in Asia-awareness, literacy and local content. Available at: <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/07/150709-asia-local-content-final.pdf>. [Accessed 12 February 2018].
- Guerriero, M. (2015). The impact of Internet connectivity on economic development in Sub-Saharan Africa. *Economic and Private Sector Professional Evidence and Applied Knowledge Services*.
- Habibu, T., Mamun, M. and Clement, C. (2012). Difficulties Faced by Teachers in Using ICT in Teaching-Learning at Technical and Higher Educational Institutions of Uganda. *International Journal of Engineering Research and Technology*.

- Hafiz, B., Shaar J. A. N. and Saleh A. I. (2013). An Exploratory Evidence of Youth's ICT empowerment in Nigeria. *European Journal of Business and Management* www.iiste.org, ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.10, 2013.
- Hakim, C. (2000). *Work-Lifestyle Choices in the 21st Century: Preference Theory*, Oxford: Oxford University Press.
- Haliso, Y. (2011). Factors Affecting Information and Communication Technologies (ICTs) use by Academic Librarians in South Western Nigeria. Department of Information Resources Management- Babcock University Nigeria. *Library Philosophy and Practice* 2011. [Http://Unllib.Unl.Edu/Lpp/](http://Unllib.Unl.Edu/Lpp/).
- Hameed, T. (2006). ICT as an enabler for socio-economic development. Digital Opportunity Forum 2006, International Telecommunication Union, Seoul: Korea. Available at <http://www.itu.int/osg/spu/digitalbridges/materials/hameed-paper.pdf> [Accessed 27 November 2017]
- Hartline, M D and Ferrell, O C (1996). The Management of Customer Contact Service Employees: An Empirical Investigation, *Journal of Marketing*, 69 (October), 52-70.
- Hathaway, R.S. (1995). Assumptions underlying quantitative and qualitative research: Implications for institutional research. *Res High Educ* 36, 535–562 (1995). <https://doi.org/10.1007/BF02208830>
- Haque A., Tarofder A. K., Rahman S. and Raquib M. A. (2009). Electronic transaction of internet banking and its perception of Malaysian online customers. *African Journal of Business Management* Vol.3 (6), pp. 248-259, June 2009 Available online at <http://www.academicjournals.org/AJBM> DOI:10.5897/AJBM09.036 ISSN 1993-8233 © 2009 Academic Journals.
- Hauge, J & Jamison, M. (2009). *Analysing Telecommunications Market Competition: Foundations for Best Practices*.
- Hawthorne, R. Mondliwa, P. Paremoer, T. and Robb G. (2016). Competition, barriers to entry and inclusive growth: Telecommunications Sector Study, June 2016. CCRED, University of Johannesburg.
- Hecht, J. (2016). The Bandwidth Bottleneck that is throttling the Internet. Researcher are scrambling to repair and expand data pipes worldwide and to keep the information revolution from grinding to a halt. *Scientific American*, Nature Magazine on August 10, 2016.
- He, H., Li, Y. (2010). Key service drivers for high-tech service brand equity: the mediating role of overall service quality and perceived value. *J. Marketing Manage.* 27(1/2), 77–99.
- Hennink, M. M., Kaiser, B. N. and Marconi, V. C. (2017). Code saturation versus meaning saturation: how many interviews are enough? *Qual Health Res.* 2017;27(4):591–608.

- Hessalmaldin, M. S. (2008). Customer Satisfaction in Four Star Isfahan Hotels: An Application of SERVQUAL Model, Lulea University of Technology, LTU-PB-EX=08/059.
- Hicks, H. A., Nighot, R., Aneja, N., Aledhari, M., Ali Kashif Bashir and Bielby, Jared (2016). Options and Challenges in Providing Universal Access to the Internet (Part 1). By IEEE Internet Initiative E-newsletter, November 2016.
- Hirschman, A.O. (1970). Exit, Voice and Loyalty: Response to Decline in Firms, Organisations and States. Cambridge, Mass. London: Harvard University Press.
- Ho, C. and Wu, W. (1999). Antecedents of Customer Satisfaction on the Internet: An Empirical Study of Online Shopping. Proceedings of the 32nd Annual Hawaii International Conference on Systems Sciences. 1999. HICSS-32. Abstracts and CD-ROM of Full Papers, Maui, HI, USA, 1999, pp. 9 pp.-, DOI:10.1109/HICSS.1999.6474470.
- Ho, W. S and Yahya, S. (2015). Consumers' perception towards the extent of internet banking usage in Malaysia Problems and Perspectives in Management, Volume 13, Issue 2, 2015.
- Hoffman, K. D. and John E. G. (2010). Services Marketing: Concepts, Strategies and Cases. Cengage Learning, 2010, 1439039399, 978143939039397 480 pages. Business & economics General.
- Holmes, A., Illowsky, B. and Dean, S. (2015). Introductory Business Statistics. Publisher Opens tax, Publication Date, March 31, 2015. EBOOK ISBN 978-1-947172-47-0 PRINT ISBN978-1-947172-46-3
- Homburg, C., Koschate, N., and Hoyer, W. (2006). The Role of Cognition and Affect in the Formation of Customer Satisfaction: A Dynamic Perspective. Journal of Marketing, 70(3), 21-31.
- Hong J and Kim B. (2020). Service Quality, Relationship Benefit and Experience Value in the Auto Repair Services Sector. Journal of Open Innovation: Technology, Market, and Complexity. 2020; 6(2):30. <https://doi.org/10.3390/joitmc6020030>
- Hong, S.C. and Goo, Y. J. (2004) A Causal Model of Customer Loyalty to Professional Service Firms: An Empirical Study, International Journal of Management, 21(4), p. 531-41.
- Hossain, M. Z. (2017). Building Sustainable Relationships through Customer Support Service in Telecommunication Industry. Global Journal of Management and Business Research: E, Marketing Volume 17 Issue 2 Version 1.0 Year 2017 Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA). Online ISSN: 2249-4588 & Print ISSN: 0975-5853.
- Hsieh, Hsiu-Fang and Shannon, S. E. (2005). Three Approaches to Qualitative Content Analysis. First Published November 1, 2005 Research Article Find in Pub Med <https://doi.org/10.1177/1049732305276687>

- Hsin-Hui H., Jay K. and Thanika D. J. (2009) Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study, *The Service Industries Journal*, 29:2, 111-125, DOI: 10.1080/02642060802292932
- Huang, P. L., Lee B. C.Y. and Chen CC (2019). The influence of service quality on customer satisfaction and loyalty in B2B technology service industry, *Total Quality Management and Business Excellence*, 30:13-14, 1449-1465, DOI: 10.1080/14783363.2017.1372184
- Hung, Y. H., Huang, M.L. and Chen, K.S. (2003). Service quality evaluation by service quality performance matrix. *Total quality Management and Business Excellence*, 14(1), 79-89.
- Hyper-dictionary (2005). Adaptive Technologies and Business Integration. Social managerial. Available at: www.hyper-dictionary.com [Accessed 24 September 2017]
- IBM (2017). Call me paranoid – how to stay safer online. IBM in Australia and New Zealand. Available at: <https://www.ibm.com/blogs/ibm-anz/personal-cyber-security/> [Accessed 22 February 2018].
- IDG Connect (2017). Five reasons South Korea has the fastest internet. Posted by IDG Connect July 31 2017. Available at: <https://www.idgconnect.com/idgconnect/opinion/1027153/reasons-south-korea-fastest-internet> [Accessed 29 January 2019].
- Idachaba, F. E (2010): Telecommunication Cost Reduction in Nigeria through infrastructure sharing between operators. *Pacific Journal of Science & Technology* Vol 11, No.1. Pages 272 -275.
- IFLA (2018). IFLA Statement on Digital Literacy (18 August 2017). Available at: <https://www.ifla.org/publications/node/11586> [Accessed 29 January 2019].
- Ignou, the People's University (2012). Internet and Its Features. Available at: <http://depssa.ignou.ac.in/wiki/index.php/INTERNETANDFEATURES> [Accessed 16 July 2014].
- Ihuah, P. W. and Eaton D. (2013). The Pragmatic Research Approach: A Framework for Sustainable Management of Public Housing Estates in Nigeria. *Journal of US-China Public Administration*, ISSN 1548-6591 October 2013, Vol. 10, No. 10, 933-944.
- Ilo P.I. & Ifijeh G.I. (2010) Impact of the Internet on Final Year Students' Research: A Case Study of Covenant University, Ota, Nigeria. *Technical Services Librarian*, mailto:ifijehgoodluck@yahoo.com Serials Librarian Centre for Learning Resources Covenant University Ota, Nigeria, *Library Philosophy and Practice* 2010 ISSN 1522-0222.
- Ilori, T. (2016). Nigeria's onerous new Communication Service Tax Bill, by Tomiwa Ilori. *Premium Times*, June 6, 2016. Available at: **Error! Hyperlink reference not valid.** [Accessed 29 January 2019]
- Internet Exchange Point of Nigeria (IXPN) (2015). History. Available at: **Error! Hyperlink reference not valid.**History [Accessed 10 April 2017].

- Internet Society (2012). Bandwidth Management Internet Society Technology Roundtable Series. This documents the Internet Society Technology Roundtable meeting on the topic of bandwidth management that took place on October 11th and 12th 2012 in London, England. Available at: https://www.internetsociety.org/wp-content/uploads/2017/08/BWroundtable_report-1.0.pdf [Accessed 6 January 2018].
- Internet Society (2013a). Available at: <http://www.internetsociety.org/internet/what-Internet/history-internet/brief-history-internet> [Accessed 19 March 2014].
- Internet Society (2013b), Average price per GB of traffic in Sub-Saharan Africa for Internet access. Available at: <http://www.internetsociety.org/doc/average-price-gb-traffic-sub-saharan-africa-internet-access> [Accessed 22 March 2015]
- Internet Society (2016a). Global Internet Report, 2016. Available at: https://www.internetsociety.org/globalinternetreport/2016/?gclid=Cj0KCQiA7dHSBRDEARIsAJhAHwgtE4_De4NezkLP37AzPESrLBI3U_DrXm4QFEs_6gfvXKJS1jCJROcaAnvqEALw_wcB. [Accessed 20 December 2017].
- Internet Society (2016b). A policy framework for enabling Internet access connecting the world 14 September 2016. Available at: <https://www.internetsociety.org/resources/doc/2016/a-policy-framework-for-enabling-internet-access/#ftn4> [Accessed 28 January 2019].
- Internet Society (2017). Issue Paper: Asia-Pacific Bureau Mobile Internet November 2017. Available at: <https://www.Internetsociety.Org/Wp-Content/Uploads/2017/11/APAC-Issue-Paper-Mobile-Internet-Pdf> [Accessed 13 February 2018].
- Internet Society (2018). Europe. Available at: <https://www.internetsociety.org/regions/europe/> [Accessed 21 February 2018].
- Internet and World Wide Web (1995).
- Ip, K., Robinson, M. Lau, N. and Gong, J. (2018). China Cybersecurity and Data Protection: A round up of recent developments - October 2018. Available at: <https://www.Herbertsmithfreehills.com/latest-thinking/china-cybersecurity-and-data-protection-a-round-up-of-recent-developments-october> [Accessed 28 January 2019].
- Isip, U. (2017). Federal-Capital-Fastest-Growing-City-Africa-World-Large-Population-3. Wayn, 2017. Available at: <https://www2.wayn.com/qa/nigeria-abuja/tip/658597/federal-capital-fastest-growing-city-africa-world-large-population3https://www2.wayn.com/qa/nigeria-abuja/tip/658597/> [Accessed 15 December 2017].
- ISP Review (2017). ISP Complaints and Advice. Available at: <https://www.ispreview.co.uk/new/complain/complain.shtml> [Accessed 18 January 2018]
- ITU (2005). International Internet Connectivity – The Issues. Are poor countries subsidizing the rich? Via Africa: Creating local and regional IXPs to save money and bandwidth —Discussion paper prepared for ITU and the International Development Research Centre (IDRC) for the 2004 Global Symposium for Regulators. The paper was written by Russell South wood, CEO, Balancing Act, and was released in

January 2005 as a joint publication of ITU and IDRC, following a comment period that closed on 30 December 2004.

ITU (2009). Article 1 - Terms and Definitions" life.itu.ch. International Telecommunication Union. 19 October 2009. Industrial, scientific and medical (ISM) applications (of radio frequency energy): Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications.

International Telecommunication Union (2011): Measuring the Information Society. (Chairperson: Brahim Sanou).

ITU (2012). Strategies for the promotion of broadband services and infrastructure: a case study on Nigeria - International Telecommunication Union.

ITU (2013a). Measuring the Information Society reports for 2013"-International Telecommunication Union.

ITU (2013b). The World in 2013, ICT Facts and Figures - International Telecommunication Union.

ITU (2013c). Regulatory and Market Environment Study on international Internet connectivity in sub-Saharan Africa March 2013, Telecommunication Development Sector -International Telecommunication Union.

International Telecommunication Union (2014): ICT Facts and Figures. The world in 2014.

International Telecommunication Union, World Telecommunication/ICT Indicators Database (2015). State of Connectivity. A Report on Global Internet Access. Internet.org by Facebook.

ITU (2016). ICT Facts and Figures. The world in 2016 - International Telecommunication Union.

ITU (2017a). ICT Facts and Figures 2017- International Telecommunication Union. Printed in Switzerland Geneva, July 2017.

ITU (2017b). Measuring the Information Society reports for 2017 Volume 1- International Telecommunication Union.

ITU (2017c). Measuring the Information Society reports for 2017 Volume 2 - International Telecommunication Union.

Industry Working Group (2012). Position Paper on Hazards and Further Implications of Multiple Taxation and Regulation of the Communications Industry in Nigeria March 2012. Assessment of economic impact of wireless broadband in Nigeria, February, 2011: GSMA Report.

Information Technology and Innovation Foundation (2008). Explaining International Broadband Leadership (Washington DC May 2008 app).

- Internet World Stats (2017). Miniwatts Group Marketing. Available at: www.internetworldstats.com [Accessed 14 April 2017].
- IT and Telecom Digest, 2013: No, 144. P26 December, 2013.
- Izard, C. E. (1977). Human Emotions. New York: Plenum Press.
- Jacobucci D. and Ostrom A. (1995). Distinguishing Service Quality and Customer Satisfaction: The Voice of the Consumer JOURNAL OF CONSUMER PSYCHOLOGY, 4(3), 277-303 Copyright © 1995, Lawrence Erlbaum Associates, Inc.
- Jagboro, K.O. (2003). A study of Internet usage in Nigerian universities: A case study of Obafemi Awolowo University, Ile-Ife, Nigeria. Volume 8, Number 2 - 3 February 2003>Jagboro. A Senior Librarian and System Analyst at the Hezekiah Oluwasanmi Library, Obafemi Awolowo University, Ile-Ife.
- Jagun, A. and Somolu, O. (2010) Broadband for Nigeria [BB4NG], Background Document of Society, Markets & Technology Research and Women's Technology Empowerment Centre.
- Jaiyeola I. and Andrews O. (2016). FCT Minister Harps on Development of Satellite Town. Archived from Thisday Newspaper. Available at: [Error! Hyperlink reference not valid.2016/03/29/fct-minister-harps-on-development-of-satellite-towns/](http://www.thisday.com.ng/2016/03/29/fct-minister-harps-on-development-of-satellite-towns/) [Accessed 10 December 2016].
- Jain, S. K. and Gupta G. (2004). Measuring Service Quality: SERVQUAL vs. SERVPERF Scales. VIKALPA • VOLUME 29 • NO 2 • APRIL - JUNE 2004.
- James, O. (2009). Evaluating the Expectations Disconfirmation and Expectations Anchoring Approaches to Citizen Satisfaction with Local Public Services. Journal of Public Administration Research and Theory 19 (1): 107–123. doi:10.1093/jopart/mum034.
- Jamison, M., Sanford, B., and Liangliang J. (2009). Analysing Telecommunications Market Competition: A Comparison of Cases. Public Utility Research Centre, University of Florida.
- Jin-Woo P., Rodger R. and Cheng-Lung W. (2006). Modelling the Impact of Airline Service Quality and Marketing Variables on Passengers' Future Behavioural Intentions, Transportation Planning and Technology, 29:5, 359-381, DOI: [10.1080/03081060600917686](https://doi.org/10.1080/03081060600917686)
- Jipitec (2015). Jipitec – Welcome to the Jungle: The Liability of Internet Intermediaries for Privacy Violations in Europe. Journal of Intellectual Property, Information Technology and E-Commerce Law.
- Jiriko, G.K., Dung Gwom J.Y. & Wapwera, S.D (2015). The Evolution of Abuja as a 'Smart City' A Prognosis. Article - October 2015.

- Johnson, M. D. and Fornell C. (1991). A Framework for Comparing Customer Satisfaction Across Individuals and Product Categories. *Journal of Economic Psychology*, 12 (2), 267–86.
- Jones, T.O. and Sasser, W. E. (1995). Why satisfied customers' defect, *Harvard business review*, 73(6), p. 88–88.
- Joudeh, M. M. and Dandis A. O. (2018). Service Quality, Customer Satisfaction and Loyalty in an Internet Service Providers. *International Journal of Business and Management*; Vol. 13, No. 8; 2018 ISSN 1833-3850 E-ISSN 1833-8119 Published by Canadian Center of Science and Education. URL: <https://doi.org/10.5539/ijbm.v13n8p108>
- Jun, B. & Kang B. (2013). Effects of Information Quality on Customer Satisfaction and Continuous Intention to use in Social Commerce. *Journal of the Korea Society of Computer and Information* 18(3) DOI: 10.9708/jksci.2013.18.3.127
- Kabir M. H and Carlsson T. (2010) Service Quality - Expectations, perceptions and satisfaction about Service Quality at Destination Gotland - A case study. Master thesis in Business Administration Program: Masters Program in International Management 15 ECTS Gotland University.
- Kalb, I. (2011). How Customer Complaints Can Improve Business. Updated on: June 23, 2011.
- Kalb, I. (2013). Internet Providers Don't Have To Have Such A Horrendous Reputation', *Business Insider*, 11 April [Online]. Available at: <https://www.businessinsider.com/wouldnt-it-be-smarter-for-isps-and-cable-companies-to-take-good-care-of-their-customers-in-the-first-place-2013-4?IR=T> [Accessed 18 January 2018].
- Kamel S. (2004): Technological Acceptance Model, the America University of Cairo.
- Karen, R., Scott E. and Lyman C. (2015). Internet Society (2015) - The Internet of Things: An Overview Understanding: The Issues and Challenges of a More Connected World. 2015 The Internet Society (ISOC) by Karen Rose, Scott Eldridge, Lyman Chapin. This Work Is Licensed under the Creative Commons Attribution/Non-commercial/Share alike 4.0 Un-ported License.
- Kariru, A. N and Aloo, C. (2014). Customers' perceptions and expectations of service quality in hotels in western tourism circuit, Kenya. *Journal of Research in Hospitality, Tourism and Culture* Vol. 2(1) pp. 1-12, January, 2014 DOI: <http://dx.doi.org/10.14303/jrhtc.2013.100>. Available online @<http://www.interestjournals.org/JRHTC> Copyright ©2014 International Research Journals.
- Kasemsap, K. (2018). Encouraging Digital Literacy and ICT Competency in the Information Age (Suan Sunandha Rajabhat University, Thailand) Source Title: *Encyclopaedia of Information Science and Technology*, Fourth Edition. Copyright 2018 pages: 11.

- Kehl D., Russo N. Morgus R. and Morris S. (2014). The Cost of Connectivity 2014. Data and Analysis on Broadband offerings in 24 Cities across the World. Policy Paper | October 30, 2014.
- Keller, K. L. (1993). Conceptualizing, Measuring and Managing Customer-Based Brand Equity. *Journal of Marketing* Vol. 57, No. 1 (Jan, 1993), pp 1-22.
- Kendall, S.D. (2006). Customer Service from the Customer's Perspective. In: L. FOGLI, Ed, *Customer Service Delivery: Research and Best Practices*. 1st ed. San Francisco, USA: John Wiley and Sons, Inc.
- Khadka, K. and Maharjan, S. (2017). Customer Satisfaction and Customer Loyalty: Case Trivsel städtjänster (trivsel siivouspalvelut).
- Khan, A. S., Majeed, S. & Shabbir, R. (2016). Designing a Customer Retention Framework for Telecommunication Sector. *Information Management and Business Review*, [S. I.], v. 8, n. 5, p. 48-60, Dec. 2016. ISSN 2220-3796.
- Khater, A. H. O., Almansour, B. A. and Mahmoud, M. H. (2016). Factors Influencing Customers' Acceptance of Internet Banking Services in Sudan. *International Journal of Science and Research (IJSR)* ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14 | Impact Factor (2014): 5.611 Volume 5 Issue 1, January 2016 www.ijsr.net Licensed under Creative Commons Attribution CC BY.
- Kim, W. G. and Cha, Y. (2002). Antecedents and consequence of relationship quality in hotel industry. *Hospitality management*, 21, 321–338.
- Kim, M., Park, M. and Jeong, D. (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommunications Policy*, 28, 145–159.
- Kim, K, Jeong I., Park, J., Park, Y., Kim, C. and Kim, T. (2007). The impact of network service performance on customer satisfaction and loyalty: High-speed internet service case in Korea, *Expert Systems with Applications*, Volume 32, Issue 3, 2007, Pages 822-831, ISSN 0957-4174.
- Kimathi, A. N., Mathenge, S. G. and Kithinji, Z. M. (2017). The Role of Internet Connectivity on Customer Satisfaction in Commercial Banks in Meru County, Kenya. *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 7. Ver. VII. (July 2017), PP 51-55 www.iosrjournals.org. DOI:10.9790/487X-1907075155.
- Koliouka, C., Andreopoulou Z. S., Manos B. and Lefakis P (2013). The role of Internet in economic development of Vikos-Aoos National Park, Greece.
- Kolvereid, L. and Bullvag, E. (1996). Growth Intentions and Actual Growth: The Impact of Entrepreneurial Choice. *J. Enterprising Culture* 04, 1 (1996).
- Kotler, P. (2000). *Marketing Management*. 10th edition, New Jersey, Prentice-Hall.

- Kotler, P. and Keller, K. L. (2006). *Marketing Management* (pp. 402). New Delhi, India: Prentice-Hall.
- Kotler, P. and Kelvin, K. (2006). *Marketing management*. 12th Edn., New Jersey: Pearson Education Inc.
- Kotler, P. and Armstrong, G. (2007). *Marketing: An Introduction* (8 ed.): Pearson Prentice Hall.
- Kozak, M., Krzanowski, W. and Tartanus, M. (2012). Use of the correlation coefficient in agricultural sciences: Problems, pitfalls and how to deal with them. *Anais da Academia Brasileira de Ciências*. 84.1147-56.10.1590/S0001-37652012000400029.
- Krejcie, R. V. and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Kreuger R.A (1998) *Focus groups: a practical guide for applied research*, London: Sage.
- Kripanont, N. (2007). *Examining a Technology Acceptance Model of Internet Usage by Academics within Thai Business Schools*. School of Information Systems Faculty of Business and Law Victoria University Melbourne, Australia.
- Krippendorff, K. (2004). *Content analysis: an introduction to its methodology* Sage Publications Inc., Thousand Oaks, California (2004).
- Krishnan, S. and Valle, V. A. (1979). Dissatisfaction Attributions and Consumer Complaint Behaviour, in *NA - Advances in Consumer Research Volume 06*, eds. William L. Wilkie, Ann Arbor, MI: Association for Consumer Research, Pages: 445-449.
- Kristensen, K.; Dahlgard, J.J. & Kanji, G.K. (1992). On measurement of customer satisfaction, *Total Quality Management*, 3(2), 123-8.
- Krueger, R. A. (1994). *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: Sage Publications Inc.
- Kuboye B. M. (2017). Evaluation of Broadband Network Performance in Nigeria. *Int. J. Communications Network and System Sciences*, 2017, 10, 199-207. ISSN Online: 1913-3723, ISSN Print:1913-3715.
- Kumar, R. (2005). *Research Methodology: A Step-by-Step Guide for Beginner* SAGE Publications, 15 Jul 2005 - Social Science.
- Kumar, R., Singh, S. B. and Kaur, A. (2006). Internet Use by Teachers and Students in Engineering Colleges of Punjab, Haryana, and Himachal Pradesh States of India: An Analysis. *College of Engineering & Technology, Ferozepur, India. Electronic Journal of Academic and Special Librarianship v.7 no.1* (Spring 2006).
- Kundishora, S. M. (2010). *The Role of Information and Communication Technology ICT in Enhancing Local Economic Development and Poverty Reduction*. Chief Executive Officer, Zimbabwe Academic and Research Network.

- Kursunluoglu, E. (2011). Customer Satisfaction and Customer Loyalty: A Field Research in Shopping Centers in Izmir City – Turkey. *International Journal of Business and Social Science*, Vol. 2 No. 17. www.ijbssnet.com
- Kushwah, S. V. & Bhargav, A. (2014). Service Quality Expectations and Perceptions of Telecom Sector in India. *International Journal of Advancements in Technology* <http://ijict.org/> ISSN 0976-4860 Vol. 5 No. 1 (March 2014) © IJoAT.
- Kweku, A.K (2006). Demystifying ICT diffusion and use among rural women in Kenya. Paper presented to Pro LISSA 2006 Conference.
- Lai, F., Griffin, M. and Babin, B. (2009). How quality, value, image and satisfaction create loyalty at a Chinese telecom. *J. Bus. Res.* 62,980–986.
- Lai P.C (2018). Research Methodology for Novelty Technology. *JISTEM – Journal of Information Systems and Technology Management*. Vol.15 São Paulo 2018 Pub Dec 13, 2018. <http://dx.doi.org/10.4301/s1807-1775201815010>. Print version ISSN1809-2640 Online version ISSN 1807-1775.
- Lam, T., Wong, A. and Yeung, S. (1997). Measuring Service Quality in Clubs: An Application of the SERVQUAL Instrument. *Journal of Hospitality Marketing*, Vol. 4, No.1, pp.7-14.
- Lee, J. (2017). Why Does South Korea Have Faster Internet for a Cheaper Price Tag?
- Lee, D., Park, J. and Ahn, J. (2001). “On the explanation of factors affecting e-commerce adoption,” *Proceedings of the 22nd International Conference on Information Systems*, New Orleans, LA, 109-120.
- Lee, Y., Park, J., Chung, N. and Blakeney, A. (2012). A unified perspective on the factors influencing usage intention toward mobile financial services. *J. Bus. Res.*65, 1590–1599.
- Lee, S., Hong A. and Hwang J. (2017). ICT diffusion as a determinant of human progress, *Information Technology for Development*, 23:4, 687-705, DOI:10.1080/02681102.2017.1383874
- Leelakulthanit, O. and Hongcharu, B. (2011). Factors that impact customer satisfaction: Evidence from the Thailand mobile cellular network industry. *International Journal of Management and Marketing Research*, Vol. 4 No. 2, pp. 67-76.
- Lehtinen, U. and Lehitinen, J.R. (1982). *Service Quality: A Study of Quality Dimensions*, Service Management Institute, Helsinki
- Letzter, R. (2016). Here’s why Internet services are so abysmal in America *Business Insider* Jan 28, 2016. Available at: <https://www.businessinsider.com/why-us-internet-services-stink-2016-1?IR=T>
- Licklider J.C.R. and Taylor R. W. (1968): *Science and Technology*.

- Lim, H., Widdows, R. and Park J. (2006). M-loyalty: winning strategies for mobile carriers. *Journal of Consumer Marketing* 23/4 (2006) PP. 208–218
- Ling, G. M., Fern, Y. S., Boon, L. K. & Huat, T. S (2016). Understanding Customer Satisfaction of Internet Banking: A Case Study in Malacca. *Fifth International Conference on Marketing and Retailing (5th ICOMAR) 2015. Procedia Economics and Finance* 37 (2016) 80 – 85. Available online at www.sciencedirect.com
- Litosseliti L. (2003). *Using focus groups in research*. Continuum, London 2003.
- Lobiondo-Wood G, Haber J. (2013). *Nursing research in Canada. Methods, critical appraisal, and utilization*. 3rd Canadian Edition. Toronto: Elsevier, 2013.
- Longe, O., Boateng, R. Longe, F. and Olatubosun, K. (2010). Information & Communication Technology Adoption among Adults in South Western Nigeria: An Assessment of Usage-Phobia Factors. *Journal of Information Technology Impact* Vol. 10, No. 1, pp. 65-86, 2010.
- Lovelock, C. & Wirtz, J. (2007). *Services marketing: People, technology, strategy*. 6th Edition. New Jersey: Pearson Prentice Hall.
- Lovelock, C., Wirtz, J. & Chatterjee, J. (2011). *Services marketing: people, technology, strategy*, 7th Edition. New Delhi: Pearson Education in South Asia.
- Madon, S. (2000). The Internet and Socio-economic Development: Exploring the Interaction. *Information Technology & People*, 13(2), 85-101.
- Madu, I. J. (2009). *Influence of Library Resources, Services and Use on Publications Output of Fisheries Scientists in Nigeria*. A PhD Research Proposal Submitted to the Department of Library Archival and Information Studies, Faculty of Education, University of Ibadan, Nigeria.
- Masri, N. W., You, J, Ruangkanjanes, A., Chen, S. & Pan, C. (2020). Assessing the Effects of Information System Quality and Relationship Quality on Continuance Intention in E-Tourism *Int J Environ Res Public Health*. 2020 Jan; 17(1): 174. Published online 2019 Dec 25. Doi: 10.3390/ijerph17010174 PMID: 31881762.
- Matthee, K. W., Mweemba, G., Pais, A. V., Van Stam, G. and Rijken, M. (2007). Bringing Internet connectivity to rural Zambia using a collaborative approach. Paper presented at the International Conference on Information and Communication Technologies and Development, Bangalore, India". Doi: 10.1109/ICTD.2007.4937391
- Mazis, M B, Antola, O T and Klippel, R E (1975). A Comparison of Four Multi-Attribute Models in the Prediction of Consumer Attitudes. *Journal of Consumer Research*, 2(June), 38-52.
- Mazzarese, D. (2016). *Impact of Increased Bandwidth on Fibre Network* July 1, 2016.

- McColl-Kennedy, J. and Schneider, U. (2000). Measuring customer satisfaction: why, what and how. *Total Quality Management*, 11 (7): 1-14.
- McFarlane, A. D. (2013). The Strategic Importance of Customer Value". *Keller Graduate Journal*, Article 5, Volume 2 Issue 1. 4-27-2013.
- McKinsey and Company (2014). Offline and falling behind: Barriers to Internet adoption. McKinsey and Company Home High Tech. Toggle search field Article - September 2014.
- Media Awareness Network (2010). Digital Literacy in Canada: From Inclusion to Transformation a Submission to the Digital Economy Strategy Consultation July 7, 2010.
- Mertens, D. M. (2007). Transformative Paradigm: Mixed Methods and Social Justice. *J Mixed Methods Res* 1(3):212–225.
- Michigan State University (1994-2015). Available at <http://globaledge.msu.edu/countries/nigeria/economy> [Accessed 20 June 2018].
- Michael, M. M. (2013). Technology Barriers to Quality of Service Offered by Cyber Cafes: A Case Study of Cyber Cafes in The Nairobi CBD. Date: 2013-12 - United States International University – Africa - Digital Repository - URL: <http://hdl.handle.net/11732/201>.
- Miles, M, B. and Huberman, A. M. (1994). *Qualitative Data Analysis* (2nd edition). Thousand Oaks, CA: Sage Publications.
- Miniwatts Marketing Group (2017). Internet World Stats: “Usage and Population Statistics”.
- Moore, D. S. and McCabe G. P (2006). “Introduction to the Practice of Statistics, Third edition, p. 219”.
- Morgan, D. L., Krueger, R. A. and King, J. A. (1998). *The Focus Group Kit* (Vols. 1–6). Thousand Oaks, CA: Sage Publications Inc.
- Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research*,1(1), 48-76.
- Morgeson, F. V. (2012). Expectations, Disconfirmation, and Citizen Satisfaction with the U.S. Federal Government: Testing and Expanding the Model. *Journal of Public Administration Research and Theory* 23 (2): 289–305. doi:10.1093/jopart/mus012.
- Morse J. M. (2000). Determining sample size. *Qual Health Res*. 2000;10(1):3–5.
- Moursund D. (2005): *Introduction to Information and Communication Technology in Education*.
- MTN Website (2015).

- MTN (2017). MTN Nigeria Data Bundles. Available at: <http://www.mtnonline.com/products-services/internet-services/data-bundles> [Accessed 15 May 2018]
- Muijs, D. (2011). *Doing Quantitative Research in Education with SPSS*. Published: 2011/2nd Edition. DOI: <https://dx.doi.org/10.4135/9781849203241.n4>
- Muramalla V.S. S. R. and Gawad M. A. (2014) *Telecommunications Revolution and Its Effects on Economic Development: An Applied Study of Developing Economies Such As Egypt, Saudi Arabia and India* 1.1-23.
- Murphy J. T., Carmody P. and Surborg B. (2014). Industrial transformation or business as usual? Information and communication technologies and Africa's place in the global information economy, *Review of African Political Economy*, 41:140, 264-283, DOI:10.1080/03056244.2013.873024
- Musingafi M. C.C. and Zebron S. (2014). "The Role of Information and Communication Technology in Rural Socio-Economic Development in Africa," *International Journal of Public Policy and Administration Research*, Conscientia Beam, vol. 1(2), pages 38-46, 06-2014.
- Naoum, S. (2007). *Dissertation Research & Writing for Construction Student*. 2nd Ed. London: Butterworth-Heinemann.
- Narayan, S. B. (2012). Managing Customers' Perceptions and Expectations of Service Delivery in Selected Banks in Odisha. *The Indian Journal of Management*, 5(2):25-30.
- Nanette S. L. and Meryem M. (2015). Intergovernmental Organizations and Global Internet Governance Architecture. The 56th ISA (International Studies Association) Annual Convention, the International Studies Association, Feb 2015, New Orleans (Louisiana), United States.
- Naseri, M., Elliott, G. (2011) Role of demographics, social connectedness and prior internet experience in adoption of online shopping: Applications for direct marketing. *J Target Meas Anal Mark* 19, 69–84 (2011). <https://doi.org/10.1057/jt.2011.9>
- National Bureau of Statistics (2011). 2011 Annual Socio-Economic Report: Access ICT.
- National Bureau of Statistics (2012).
- National Bureau of Statistics (2017).
- National Communication Policy (2000). *Nations On-line (1994 – 2014)*. Available at: <http://www.nationsonline.org/oneworld/africa.htm> [Accessed 5 September 2014].
- Nations online (2017). *Countries by Continents - Countries of Asia*. Available at: <http://www.nationsonline.org/oneworld/asia.htm> [Accessed 10 January 2018].
- NCC and CTO (2012). *Nigeria Consumer Satisfaction Survey Final Report Final Report Part 2: Data Analysis for Nigeria Communications Commission (NCC)* Submitted by

NCC Consumer Satisfaction Survey (NCC CSS) Team: Commonwealth Telecommunications Organization (CTO) Decision Support Consulting Ltd Telecom Advisory Services (TAS) Ltd Seals Consultants Ltd November 2012.

NCC Report (2021). Subscriber/Network Data Annual Report Policy Competition and Economic Analysis Department.

Ndukwe, E. C. A. (2002). The Future of Nigerian Telecommunication is bright. The Guardian (Tuesday 10, June p.51).

Ndukwe, E. (2005). European Journal of Business and Management, ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.10, 2013.

Ndukwe, E. (2007). ICT Forum: ICTs as tool for achieving MDGs – October 12th, 2007.

Ndung'u, M. N, Lewis C. and Mothobi O. (2019). The State of ICT In Kenya Policy Paper No.9, Series 5: After Access the State of ICT in Kenya.

Neely, A. (2005), The evolution of performance measurement research: Developments in the last decade and a research agenda for the next, International Journal of Operations & Production Management, Vol. 25 ISSN: 12, pp.1264 – 1277.

Neger, M., Ahamed, B. and Mahmud, K. (2013). Measuring Service Quality of Internet Service Providing Firms in Bangladesh. Global Journal of Management and Business Research Volume 13 Issue 10 Version 1.0 Year 2013. Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA). Online ISSN: 2249-4588 & Print ISSN: 0975-5853.

Negi, R. (2009). Determining customer satisfaction through perceived service quality: A study of Ethiopian mobile users, International Journal of Mobile Marketing; Vol.4, Number 1; p.31-38.

Nemertes Research (2009). Internet Interrupted: Why Architectural Limitations Will Fracture the 'Net

Neuendorf, K. (2002). The content analysis guidebook Sage Publications Inc., Thousand Oaks, California (2002)

Newman, K. (2001). Interrogating SERVQUAL: A critical assessment of service quality measurement in a high street retail bank. International Journal of bank marketing 19 (3) 126 – 139.

Newman, I., Newman, D. and Newman, C. (2011). Writing research articles using mixed methods: Methodological considerations to help you get published.

Newman, D. A. (2014). Missing data: Five practical guidelines. Organizational Research Methods, 17, 372– 411.

News Desk (2013). Nigeria's Fibre Optic Cables Still Under-Utilised, TRENDING NEWS . Available at: <http://www.technologyavenue.com.ng/2013/03/nigerias-fibre-optic-cables-still-under-utilised/>

- New Telegraph Newspaper (2017). Telecoms: Abuja base stations approval delay over in 60 days' by Kunle Azeez on September 28, 2017. Available at: **Error! Hyperlink reference not valid.**
- Nicholas D. T., Kostas A., Nikolaos T. and Serafim K. (2013). Predicting spectators' behavioural intentions in professional football: The role of satisfaction and service quality, *Sport Management Review*. Volume 16, Issue 1, 2013, Pages 85-96, ISSN 1441-3523, <https://doi.org/10.1016/j.smr.2012.05.004>.
- Nigerian Communications Commission Website (2020). Available at: www.ncc.gov.ng [Accessed 18 December 2020]
- Nigerian Communications Commission (2018). NCC Hosts 86th Edition of Telecom Consumer Parliament (TCP) in Abuja. Published on 14th December, 2018.
- Nigerian Communications Commission Website (2018). Available at: www.ncc.gov.ng [Accessed 17 January 2019]
- Nigerian Communications Commission Website (2017). Available at: www.ncc.gov.ng [Accessed 18 May 2019]
- Nigerian Communications Commission (2015a). Subscribers Statistics 2013 – 2015.
- Nigerian Communications Commission (2015b). Operator Statistics Quarter 4 – 2014.
- Nigerian Communications Commission (2007). Assessment of Level of Access to ICT in Semi-Urban and Rural Nigeria. Final Report, prepared by Mobile Spread Communications (Nigeria) Limited for NCC.
- Nigeria Digital Economy Diagnostic Report (2019). World Bank Group.
- Nigerian National Policy for Information Technology (2001). Federal Ministry of Science and Technology, Abuja.
- Nigeria Technology Guide (2012): Available at: <http://www.naijatechguide.com/2012/03/airtel-internet-offers-375g-hspa-high.html> [Accessed 6 April 2015]
- Nigeria Technology Guide (2016). Internet in Nigeria, Glo, MTN Airtel, Etisalat. Modified on 29th July, 2016 by Pascal Okafor.
- Nigerian Thisday (2011, December 29th). Poor Services, Inadequate Infrastructure Slowed ICT Growth in 2011.
- NHC (2020). Nigeria Solid Minerals. Available at: <http://nigeriahcottawa.ca/other-services/nigeria-solid-minerals>. [Accessed 12 December, 2021]
- NTIA (2016). Lack of Trust in Internet Privacy and Security May Deter Economic and Other Online Activities by National Telecommunications and Information Administration, United States Department of Commerce, May 13, 2016 by Rafi Goldberg, Policy Analyst, Office of Policy Analysis and Development.

- NOIPolls (2017). Power Supply to Nigerian Households down by 7 Points in Quarter 1, 2017.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd Ed.). New York, NY: McGraw-Hill.
- Nwosu, I. (2004). *Digital Public Relations: Concept and Practice*, In Nwokocha, J. (Ed.). *Digital public relations: New techniques in reputation management*, Lagos: Zoom Lens.
- Nyambura, M., Odufuwa, F., Nsengiyumva, A., Mdleleni, L., Moyo M. and Mthimkhulu, S. (2017). *Internet use barriers and user strategies: perspectives from Kenya, Nigeria, South Africa and Rwanda*. *Chenai Chair, Beyond Access Public Policy Paper series*. Editor: Alison Gillwald.researchICTafrica.net.
- Nyirenda-Jere T. and Biru T (2015). *Internet Development and Internet Governance in Africa - Internet society*.
- Nyst, C. (2017). *Access to the Internet and Digital Literacy” Discussion Paper Series: Children’s Rights and Business in a Digital World*. United Nations Children’s Fund (UNICEF) October 2017.
- Nyumba, T. O., Wilson K, , Derrick C. J. and Mukherjee N. (2018). *The use of focus group discussion methodology: Insights from two decades of application in conservation*. <https://doi.org/10.1111/2041-210X.12860>.
- Africa Tracking Internet Progress (2013). *The use of the Internet in Morocco: measuring the second level digital divide*, February 10, 2013.
- Obasuyi, L. and Usifoh, S. F. (2013) *Current Trend in Internet Access and Utilization Using Mobile Devices Among Pharmacy Lecturers in South-South Universities in Nigeria*. *Journal of Education and Practice*. www.iiste.org ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol.4, No.11, 2013.
- Obeidat, B. Y., Sweis, R. J., Zyod, D. S. and Alshurideh, M. (2012). *The effect of Perceived Service Quality on Customer Loyalty in Internet Service Providers in Jordan*. *Journal of Management Research*, 4, 224 – 242. <https://doi.org/10.5296/jmr.v4i4.2130>.
- Obinyan, O. O. (2011). *The Influence of Email Use on Generation and Postage of Mails by NiPost in South-West Geopolitical Zone of Nigeria*. *International Journal of Digital Library Services*. www.ijodls.in (ISSN: 2250-1142) Vol.1 July – Sept. 2011 Issue: I
- Odujobi, O. (2010). *Service Quality Relevance in Nigeria: Evidence from Zain Mobile*. Thesis for the Master’s degree in Business Administration (Autumn 2010)
- Odunlami, I.B. (2015). *Impact of Customer Satisfaction on Customer Retention: A Case Study of a Reputable Bank in Oyo, Oyo State, Nigeria*. *International Journal of Managerial Studies and Research (IJMSR)* Volume 3, Issue 2, February 2015, PP 42-53 ISSN 2349-0330 (Print) & ISSN 2349-0349 (Online) www.arcjournals.org.
- OECD (2000). *Regulatory Reform in Korea. Regulatory Reform in Telecommunications Industry*.

- OECD (2016). Economic and Social Benefits of Internet Openness. OECD Digital Economy Papers No. 257. DSTI/ICCP/ (2015)17/FINAL.
- Ofcom (2016). Section 6.6 Internet Access Services, Connected Nations Report 2016.
- Ogunkunle, R. A. and Fomsi, E.F. (2010). Internet Literacy for Research Development among Lecturers in Tertiary Institutions in Rivers State, Nigeria. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 1 (2):55-60. Scholar Link Research Institute Journals.
- Ogunlade, O. O., Joshua, E. and Ogunlade, A. A. (2013). Assessment of Internet Service Quality and Customers' Satisfaction in University of Ilorin, Ilorin, Nigeria. *Journal of Education and Practice*, www.iiste.org ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol.4, No.20, 2013.
- Ogunnaiké, O. O. (2010). Assessing the Relationship between Service Quality and Customer Satisfaction; Evidence from Nigerian Banking Industry. Vol. 10 Issue 3 (Ver 1.0) June 2010 *Global Journal of Management and Business Research*. GJMBR Classification (FOR) M14 D12 150501 150313 150299.
- Ojo O. (2010). The Relationship between Service Quality and Customer Satisfaction in the Telecommunication Industry: Evidence from Nigeria. *BRAND Broad Research in Accounting, Negotiation, and Distribution* ISSN 2067-8177, Volume 1, Issue 1, 2010.
- Ojo, V. O. (2011). Customer satisfaction: a framework for assessing the service quality of urban water service providers in Abuja, Nigeria. Loughborough University. Institutional Repository.
- Ola, A. B. and Adewale, Y. Y. (2014). Infrastructural Vandalism in Nigerian Cities: The Case of Osogbo, Osun State. *Research on Humanities and Social Sciences* www.iiste.org ISSN 2222-1719 (Paper) ISSN 2222-2863 (Online) Vol.4, No.3, 2014.
- Olatokun, W. and Nwonne, S. (2013). Influence of Socio-Demographic Variables on Users' Choice of Mobile Service Providers in Nigerian Telecommunication Market. 2279-0764.
- Oketola, D. (2012). Punch Newspaper 19th April 2015. Available at: <http://www.punchng.com/business/technology/etisalat-extends-internt-coverage-to-22-cities/> [Accessed 18 April 2015].
- Oketola, D and Opara, S. (2013). Telecom subscribers excited as number portability begins today, April 22, 2013.
- Okonji, E. (2017). Develop New Business Model for Survivability, NCC Urges ISPs. *Thisday Newspaper*, 03 August 2017.
- Okunola O. M. (2015). Users' Experience of E-Government Services: A Case Study Based on the Nigeria Immigration Service.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, Vol. 17, November, pp. 460-9.

- Oliver, R. (1981). Measurement and Evaluation of Satisfaction Process in Retail Settings. *Journal of Retailing*, 57, pp 25-48.
- Oliver, R.L. and DeSarbo, W. S. (1988). Response determinants in satisfaction judgements. *Journal of Consumer Research* 14 (March 1988) 495 – 507.
- Oliver, R. L. (1993). Cognitive, Affective, and Attribute Bases of the Satisfaction Response, *Journal of Consumer Research*, Volume 20, Issue 3, December 1993, Pages 418–430, <https://doi.org/10.1086/209358>
- Olshavsky, R. N. & Miller, J. A. (1972). Consumer Expectations, Product Performance, and Perceived Product Quality. *Journal of Marketing Research*, 9 (February, 1972), 19-21.
- Oluwole, M. S. (2017). Critical factors determining public transport access level in Abuja Federal Capital Territory of Nigeria. Article Number - ECD543266268, Vol.10 (11), pp. 298-308, November 2017. <https://doi.org/10.5897/JGRP2017.0647>.
- Omotayo, B. O. (2010) A survey of Internet access and usage among undergraduates in an African university. *The International Information & Library Review* (2006) 38, 215–224.
- Oppenheim, A. (2005). Questionnaire design, interviewing, and attitude measurement. London: Continuum.
- Osang, F. (2012). Internet Access in Nigeria: Perception of National Open University of Nigeria (Noun) Students. National Open University of Nigeria, Lagos, Nigeria and a PhD Student ICT University, Baton Rouge, USA. *International Journal of Emerging Technology and Advanced Engineering* Website: www.ijetae.com (ISSN 2250-2459, Volume 2, Issue 10, October 2012).
- Ouparamai, W. (2009). High-speed internet service providers in Thailand: customer selection, satisfaction and loyalty. Southern Cross University ePublications@SCU.
- Ovenden, A. (1995). Keep your customers happy and your competition will slowly fade away. *The TCM Magazine*, Vol. 7 No. 1, pp.46-49.
- Owoyemi, T.E and Abayomi, T. (2013) Factor Analytic Study of Internet usage by Lecturers in Nigerian Institutions of Higher Learning. *Global Journal of Human Social Science Linguistics & Education* Volume 13 Issue 11 Version 1.0 Year 2013 Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA) Online ISSN: 2249-460x & Print ISSN: 0975-587X. *Global Journal of Human Social Science* Volume XIII Issue XI Version I (G) Year 2013.
- Oxford University Press (2014).
- Palací, F., Salcedo A. and Topa, G. 1, (2019). Cognitive and Affective Antecedents of Consumers' Satisfaction: A Systematic Review of two Research Approaches.
- Parkinson, G. and Drislane, R. (2011). Qualitative research. In Online dictionary of the social sciences. Available at: <http://bitbucket.icaap.org/dict.pl> [Accessed 12 March 2015]

- Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, Vol. 49 No. 3, pp. 41-50.
- Parasuraman, A., Zeithaml, V. A. and Berry, L. L. (1988). SERVQUAL: a multiple item scale for measuring consumer perception of service quality. *Journal of Retailing*, Vol. 64 No. 1, pp. 12-37.
- Parasuraman, A., Berry, L. L. and Zeithaml, V. A. (1991). Refinement and Reassessment of the SERVQUAL Dimensions. *J Retailing*. 1991; 67(4):420-50.
- Parasuraman, A. Zeithaml, V. and Berry, L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research. *Journal of Marketing* 58, 111-124.
- Parasuraman, A., Zeithaml, V. A., and Malhotra, A. (2005). E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, 7(3), 213-233.
- Paulrajan, R. and Rajkumar, H. (2011). Service quality and customers preference of cellular mobile service providers. *Journal of technology management & innovation*, 6(1), 38-45.
- Peace-Moses, R. (2005). *A Glossary of Archival and Records Terminology*: Chicago: Society of America Archivists xxx 433 pp ISBN 1-93166-14-8.
- Peikari, H. R. (2010). The Influence of Security Statement, Technical Protection, and Privacy on Satisfaction and Loyalty; A Structural Equation Modelling. *Communications in Computer and Information Science* 92:223-23 DOI: 10.1007/978-3-642-15717-2_24. Source DBLP, Conference: Global Security, Safety, and Sustainability - 6th International Conference, ICGS3 2010, Braga, Portugal, September 1-3, 2010 Proceedings.
- Pennsylvania State University (2017). Lesson 4: Conditional Probability. *Probability Theory and Mathematical Statistics*. Penn State Eberly College of Science, STAT 414/415.
- People Daily (2015) Telecom Operators Consumes 1.4 Million Litres of Diesel Daily to Power BTS. Published on Monday Feb 2nd, 2015.
- Petzer, D. J. and De Meyer, C. F. (2011). The perceived service quality, satisfaction and behavioural intent towards cellphone network service providers: A generational perspective. *African Journal of Business Management* Vol. 5(17), pp. 7461-7473, 4 September, 2011 Available online at <http://www.academicjournals.org/AJBM> DOI: 10.5897/AJBM11.302 ISSN 1993-8233 ©2011
- Petrovicovaa, S. C., Tamara R., Jaroslav D. and Janka T. (2012). An Empirical Examination of the Relationships Between Service Quality, Satisfaction and Behavioural Intentions in Higher Education Setting. *Serbian Journal of Management* 7 (2) (2012) 203 – 218
- Phelan, C. and Wren J. (2005-06). Exploring Reliability in Academic Assessment. Graduate Assistants, UNI Office of Academic Assessment (2005-06). Available at: [Error! Hyperlink reference not valid.](#) [Accessed 9 November 2017].

- Phillips, D. C. and Burbules, N. (2000). Post-positivism and educational research, 2000 Lanham, MD Rowman and Littlefield.
- Philip, G. and Hazlett, S.A. (1997). The measurement of service quality: a new P-C-P attributes model. *International Journal of Quality and Reliability Management*, 14(3): 260-286.
- Phiri, M. A. and Mcwabe, T. (2013). Customers' Expectations and Perceptions of Service Quality: The Case of Pick N Pay Supermarket Stores in Pietermaritzburg Area, South Africa. Sept. 2013. Vol. 3, No.1 ISSN 2307-227X *International Journal of Research in Social Sciences* © 2013 IJRSS and K.A.J. All rights reserved www.ijsk.org/ijrss.
- Pitt, L.F. and Jeantrout, B. (1994). Management of customer expectations in service firms: a study and a checklist. *The Service Industries Journal*, 14(2): 170-189.
- Polit, D.F., Beck, C.T. and Hungler, B.P. (2001). *Essentials of Nursing Research: Methods, Appraisal and Utilization*. 5th Ed., Philadelphia: Lippincott Williams & Wilkins.
- Polit, D. and Beck, C., T. (2008). *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. Lippincott Williams and Wilkins.
- Ping-Lung H., Bruce C.Y. L and Ching-Chin C. (2017) The influence of service quality on customer satisfaction and loyalty in B2B technology service industry, *Total Quality Management and Business Excellence*, DOI: [10.1080/14783363.2017.1372184](https://doi.org/10.1080/14783363.2017.1372184)
- PR Loyalty Solutions (2011). What is customer loyalty? Available at: <http://prloyaltymarketing.com/customer-loyalty/what-is-customer-loyalty/> [Accessed 10 May 2017]
- Priyo, J. S., Mohamad, B. and Adetunji, R. R. (2019). An Examination of the Effects of Service Quality and Customer Satisfaction on Customer Loyalty in the Hotel Industry.
- Punch (2015) Telecoms lose N20 billion annually to multiple taxation. Available from <http://www.punchng.com/business/technology/telcos-lose-n20bn-annually-to-multiple-taxation/> [Accessed 6 March 2015]
- Pyramid Research (2010). *The Impact of Mobile Services in Nigeria (How Mobile Technologies are Transforming Economic and Social Activities)*.
- Qasim, M. and Asadullah, M. (2012). *The Role of Customer Support Service in Relationship Strengthening. A Case of Swedish Broadband Internet Service Providers*. Karlstad Business School.
- Quach, T. N., Jebarajakirthy, C. and Thaichon, P. (2016). The effects of service quality on Internet service provider customers' behaviour: A mixed methods study. *Asia Pacific Journal of Marketing and Logistics*, Vol. 28 Issue: 3, pp.435-463, <https://doi.org/10.1108/APJML-03-2015-0039>
- Quality of Service Regulations (2012). *Nigeria Communications Act 2003*.

- Quartz Africa (2017). Kenya's mobile internet beats the United States for speed written by Lily Kuo on June 08, 2017.
- Race K.E., Hotch D.F. and Parker T. (1994). Rehabilitation program evaluation: use of focus groups to empower clients, *Evaluation Review* 18 (6): 730-40.
- Rajeswari, S., Srinivasulu, Y. and Thiyagarajan, S. (2017). Relationship among Service Quality, Customer Satisfaction and Customer Loyalty: With Special Reference to Wireline Telecom Sector (DSL Service). First Published May 9, 2017 Research Article. *Global Business Review*, SAGE Journal Vol. 18, Issue 4, 2017.
- Ramseook-Munhurrun, P. and Naidoo, P (2011). Customers' Perspectives of Service Quality in Internet Banking. Pages 247-264 | Published Online: 23 Sep 2011. **Error! Hyperlink reference not valid.**
- Reason, P. and Hilary B. (2001). *Handbook of action research: participative inquiry and practice*. London: SAGE. 2001. ISBN 0761966455. OCLC 50303325.
- Reber, A. S. (1985): *Dictionary of psychology*. New York: Penguin Books.
- Reese, N. (2018). *Prospects Improving for Broadband Competition*.
- Richardson, D. (1997). The Internet and rural and agricultural development-an integrated approach. Rome: FAO. <http://www.fao.org/docrep/w6840e/w6840e00.htm>.
- Ritchie, J. Lewis, J. and Elam G. (2003). Designing and selecting samples. In: Ritchie J, Lewis J, editors. *Qualitative research practice: a guide for social science students and researchers*. London: Sage; 2003. p. 77–108.
- Robinson, S. (1999). Measuring service quality: current thinking and future requirements, *Marketing Intelligence and Planning*, 17(1): 21-32.
- Robson, C. (2002). *Real World Research: A Resource for Social Scientists and Practitioners – Researchers*. Second Edition, Malden, MA, USA: Blackwell Publishing.
- Roca, J., García, J. and Vega, J., (2009). The importance of perceived trust, security and privacy in online trading systems. *Inf. Manage. Comput. Secur.* 17(2),96–113
- Roche, I. D. (2014). An Empirical Investigation of Internet Banking Service Quality, Corporate Image and the Impact on Customer Satisfaction; With Special Reference to Sri Lankan Banking Sector. *Journal of Internet Banking and Commerce*. An open access Internet journal *Journal of Internet Banking and Commerce*, August 2014, vol. 19, No.2).
- Rogers, E. M. (1995). *Diffusion of innovations* (4th Ed.). New York: The Free Press.
- Rosenthal R. and Rosnow, R. L. (1991): "Essentials of behavioural research: Methods and data analysis" (2nd Ed.). New York: McGraw-Hill, Inc.
- Rossmann, G. B. and Wilson, B. L. (1985). Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation Review*, 9(5), 627-643.

- Rust, R.T. and Subramanian, B. (1992). Making Complaints a Management Tool, *Marketing Management*, 1(3): 41-45.
- Rust, R.T., Zahorik, A. J. and Keiningham, T. L. (1995). *Return of Quality: Measuring the Impact of Your Company's Quest for Quality*, Irwin Professional Publishing, Chicago, IL.
- Sakhaei F. S., Afshari A. J. and Esmaili E. (2014). The Impact of Service Quality on Customer Satisfaction in Internet Banking. *Journal of mathematics and computer science* 9 (2014), 33-40.
- Sakthivel, P. B., Rajendran, G. and Raju, R. (2005). TQM implementation: TQ implementation and students' satisfaction of academic performance. *The TQM Magazine*, 17(6): 573-589.
- Salaam, M. O. and Adegbore, A. M. (2010). Internet Access and Use by Students of Private Universities in Ogun State, Nigeria. *Nimbe Adedipe Library University of Agriculture, University Library Crescent University Abeokuta, Ogun State, Nigeria. Library Philosophy and Practice* 2010 ISSN 1522-0222.
- Salkind, N.J (2010). *Encyclopaedia of Research Design*, Vol. 0, SAGE Publications, Inc., Thousand Oaks, CA, DOI:10.4135/9781412961288.
- Sambuli, N. (2016). Challenges and Opportunities for Advancing Internet Access in Developing Countries While Upholding Net Neutrality. *Journal of Cyber Policy*, 1(1): 1-10.
- Sandelowski M. (1995). Sample Size in Qualitative Research. *Res Nurs Health*. 1995;18(2):179–83.
- Santos, J. (2003). E-Service Quality: A Model of Virtual Service Quality Dimension. *Managing Service Quality*, 13(3): 233-246.
- Santouridis, I., Trivellas, P. and Reklitis, P. (2009). Internet service quality and customer satisfaction: examining Internet banking in Greece. *Total Quality Management and Business Excellence*, 20(2): 223-39.
- Santouridis, I., and Trivellas, P. (2010). Investigating the impact of service quality and customer satisfaction on customer loyalty in mobile telephony in Greece. *Total Q. Manage.J.*22(3),330–343.
- Sarkindaji, B. D., Hashim, N. A. B. and Abdullateef, A. O. (2015). Assessing Efficiency of Service Quality on Consumers Retention in Nigerian Mobile Service Industry. *Mediterranean Journal of Social Sciences*, MCSER Publishing, Rome-Italy 6(1): 195-196.
- Särndal, C.; Swensson, B. and Wretman, J. (2003). *Model assisted survey sampling*. Springer". pp. 9–12. ISBN 978-0-387-40620-6. Retrieved 2 January 2011.
- Saunders, M., Lewis, P. and Thornhill, A. (2009). *Understanding research philosophies and Approaches*.

- Saravanan, R. and Rao, K. S. P. (2007). Measurement of service quality from the customer's perspective – An empirical study, *Total Quality Management*, Vol. 18. No. 4, p.435-449.
- Schell, C. (1992). *The Value of the Case Study as a Research Strategy*. Unpublished paper, Manchester Business School.
- Schumann, R. and Kende, M. (2013). *Lifting barriers to Internet connectivity in Africa: Suggestions for improving connectivity* May 2013.
- Seth N., Deshmukh S.G. and Vrat P. (2004) *Service Quality Models: A Review*.
- Seth, N. and Deshmukh, S. G. (2005). Service quality models: a review. *International Journal of Quality & Reliability Management*, 22(9): 913-949.
- Shams, G., Rehman, M.A. and Samad, S. (2020). The impact of the magnitude of service failure and complaint handling on satisfaction and brand credibility in the banking industry. *Finance Service Mark* 25, 25–34 (2020). <https://doi.org/10.1057/s41264-020-00070-0>
- Shitta, M. B. K. (2002). The impact of information technology on vocational and technology education for self-reliance. *Journal of VOC and Tech. Education*, 1(1): 1-10.
- Shukla P. (2010). Effects of Perceived Sacrifice, Quality, Value and Satisfaction on Behavioural Intention in Service Environment. *Servicing Marketing Quarterly* Vol.31.
- Smith, M. A. (1995). Measuring service quality: Is SERVQUAL now Redundant? *Journal of Marketing Management*, 11(2): 257-76.
- Spencer, L., Ritchie J., Lewis J. and Dillon L. (2003). *Quality in qualitative evaluation: a framework for assessing research evidence*. National Centre for Social Research 2003.
- Spreng, R. A., MacKenzie, S. B. and Olshavsky, R. W. (1996). Re-examination of the determinants of consumer satisfaction, *Journal of Marketing*, 60(3): 15-32.
- Srivastava, S. & Bhatnagar, A. (2013). Impact of Customer Care Services on Customer Satisfaction - A Study of Mobile Phone Subscribers of U.P. (East) Circle. *International Journal of Management Research and Review IJMRR/Jan 2013/ Volume 3/Issue 1/Article No-9/2224-2242 ISSN: 2249-7196*.
- Stank, T. P., Goldsby, T. J., and Vickery, S. K. (1999). Effect of service supplier performance on satisfaction and loyalty of store managers in the fast-food industry. *Journal of Operations Management*, 17, 429–447.
- Stewart, W. (1996–2014). *The living Internet*. <http://www.livinginternet.com/d/d.htm>
- Steenkamp, J. (1988). The relationship between price and quality in the marketplace. *De Economist*. 136. 491-507.
- Stringer, T. E. (2013). *Action research (Fourth edition.)*. Thousand Oaks, California.

- Stvilia, B., Gasser, L., Michael, B.T. and Linda C. S. (2007). A framework for information quality assessment, *Journal of the American Society for Information Science and Technology*, Vol. 58, No. 12, 2007, pp. 1720-1733.
- Suguanthi, M. G. and Shanthi, R. (2017). Customer Perception towards Service Quality in Indian Telecommunication Industry. *International Journal of Business and Management Invention*, 6(6): 141-189.
- Sumathisri, B., Muthumeenakshi, M. and Anand, S. (2014). An Analysis on Customers' Satisfaction towards Internet Service Providers. *European Journal of Business and Social Sciences*, Vol. 3, No.3, pp 68-81, June 2014. P.P. 68 - 81 URL: <http://www.ejbss.com/recent.aspx> ISSN: 2235 -767X.
- Surana, S., Patra, R., Nedeveschi, S., Ramos, M., Subramanian, L., Ben-David, Y. and Brewer, E. (2008). Beyond pilots: Keeping rural wireless networks alive. Paper presented at the 5th USENIX Symposium on 16 Information Technologies & International Development INTERNET BANDWIDTH UPGRADE Networked Systems Design and Implementation, San Francisco, CA. Available at: <http://tier.cs.berkeley.edu/docs/wireless/nsdi-surana.pdf>.
- Sweeney, J. C. and Soutar, G. (2001). Consumer Perceived Value: The Development of a Multiple Item Scale. June 2001 *Journal of Retailing* 77(2):203-220. DOI: [10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0).
- Tashakkori, A. and Teddlie, C. (1998). *Mixed Methodology: Combing Qualitative and Quantitative Approaches*. London: Sage.
- Tashakkori, A, and Teddlie, C. (Eds.) (2003). *Handbook of Mixed Methods in Social and Behavioural Research*, Sage, California.
- Tashakkori, A. and Teddlie, C. (2010). *Sage Handbook of Mixed Methods in Social and Behavioural Research*. Thousand Oaks, CA, Sage Publications.
- Tayo, O., Thompson R. and Thompson E, (2016). Impact of the Digital Divide on Computer Use and Internet Access on the Poor in Nigeria. *Journal of Education and Learning*; Published by Canadian Center of Science and Education. 5(1): 1-10.
- Taylor, S and Todd, P (1995). Assessing it usage: the role of prior experience, *MIS Quarterly*, 19(4): 561-70.
- TechTarget (2009-2014a). File Transfer Protocol (FTP).
- TechTarget (2000–2014b). Telnet.
- TechTarget (2000–2014c). Cable modem.
- TechTarget (2007-2015d) Search Telecom.
- Technology Times Media (2016). ATCON: Why Nigerians get poor telecom service quality.
- Temitope O. Y. (2011). An Analysis of the Technology of Submarine Fibre Optic Cable as a Solution of Telecommunications Infrastructure Challenges and Basis for Broadband Penetration in Nigeria.

- Thaichon, P., Lobo, A. and Mitsis, A. (2012). Investigating the Antecedents to Loyalty of Internet Service Providers in Thailand: Developing a Conceptual Model, Paper Presented to ANZMAC 2012, Adelaide, Australia.
- Thaichon, P., Lobo, A., Prentice, C. and Quash T. N. (2014). The development of service quality dimensions for internet service providers: Retaining customers of different usage patterns. *Journal of Retailing and Consumer Services*, 2(1): 1-10.
- Thaichon, P. & Quach T. N. (2015). The relationship between service quality, satisfaction, trust, value, commitment and loyalty of Internet service providers' customers. *Journal of Global Scholars of Marketing Science*, 25(1): 1-10.
- The Guardian Newspaper (2016). Glo Boosts Service in Lagos, Abuja, Port Harcourt With 4G/LTE Roll-Out by Ibukun Igbasan, 05 October 2016.
- The Guardian Newspaper (2017a). Five States Record Least Internet Users in Nigeria by Adeyemi Adepetun, 11 January 2017.
- The Guardian Newspaper (2017b). Multimedia Service Outfit Deploys Wi-Fi Hotspot Network in Abuja by Adamu Abuh, Abuja, 29th March 2017.
- The millennium project (2011). Global challenges facing humanity. How can the global convergence of information and communications technologies work for everyone? *Global futures studies & research*.
- Thisday newspaper (2017a). Abuja Residents to Enjoy High-Speed Wi-Fi Network by Onyebuchi Ezigbo in Abuja, April 2, 2017.
- Thisday newspaper (2017b). Develop new business model for survivability, NCC urges ISPs by Emma Okonji, august 3, 2017.
- Thomas, P. (2006). Performance Measurement, Reporting, Obstacles and Accountability: Recent Trends and Future Directions, Australia and New Zealand School of Government Monograph. Canberra: ANU E-Press.
- Tiemo, P. A., Bribena E. and Nwosu O. (2010) Internet Usage and Regulations in Niger Delta University Libraries. *Niger Delta University Nigeria & Nnamidi Azikiwe University Nigeria. Chinese Librarianship: an International Electronic Journal*, 31. URL: [Error! Hyperlink reference not valid.](#)
- Tiwari, S., Lane, M. and Alam, K. (2015). The challenges and opportunities of delivering wireless high speed broadband services in rural and remote Australia: A Case Study of Western Downs Region (WDR). *Australasian Conference on Information Systems, Adelaide Wireless Broadband in Rural & Remote Australia*.
- Tolman, E. C. (1932). *Purposive behaviour in animals and men* (Appleton-century, New York, 1932).
- Touré H. I. (2013). ITU Secretary-General, Lecture delivered at the "Mobile World Congress event in Barcelona".
- Trochim, W. M. K. (2006). *Research methods knowledge base*. Last revised: 10/20/2006.

- Turk, Z. & Avcilar, M. Y. (2009). The effects of perceived service quality of audit firms on satisfaction and behavioural intentions: A Research on the Istanbul Stock Exchange Listed Companies. *Research Journal of Business Management*, 3:36-46.
- Udende, P. and Azeez, A.L. (2010). Internet access and use among students of the University of Ilorin, Nigeria, *Journal of Communication and Media Research*, Department of Mass Communication, Delta State University, Abraka, Delta State, Nigeria, Vol. 2 No. 1 April, 2010 Pages 33 – 42 ISSN: 2141 – 5277.
- Uduchukwu, C. (2013). The NCC, telecom operators, and poor services in Nigeria, April 21, 2013 premium times.
- Ukodie, A, (2011). Nigeria @50 NITDA In national development. Published by Ajmedia Limited, Publishers of Eword Magazine.
- Umer, M. (2016). Customer's perception on service quality dimensions in banking sector of Pakistan. *Industrial engineering letters*, 6(6): 20-161.
- Umesh, G. (2014). Relationship between Service Quality and Customer Satisfaction in Sri Lankan Hotel Industry. *International Journal of Scientific and Research Publications*, Volume 4, Issue 11, November 2014 1 ISSN 2250-3153 www.ijsrp.org.
- United Nations Conference on Trade and Development (UNCTAD) (2017). The Least Developed Countries Report 2017. Transformational Energy Access. United Nations, New York and Geneva, 2017. UNCTAD/LDC/2017 Sales No. E.17.li.D.6 ISBN 978-92-1-112914-4 EISBN 978-92-1-362256-8 ISSN 0257-7550.
- Upal, M. (2008). Telecommunication service gap: call centre service quality perception and satisfaction. *Communications of the IBIMA* volume 3, 2008.
- Uzor, B. (2012). Nigeria listed capital market – telecoms operator consider alternative power.
- Vanguard Newspapers (2017a). MTN: subscribers lament poor services, strange languages, charges for improvement on March 8, 2017.
- Vanguard Newspaper (2017b). Why telecom services in Abuja may get worse why telecom services in Abuja may get worse by Prince Osuagwu on September 6, 2017.
- Van yzin, G. G. (2004). Expectations, Performance, and Citizen Satisfaction with Urban Services. *Journal of Policy Analysis and Management* 23 (3): 433–448. doi:10.1002/pam. 20020.
- Van Ryzin, G. G. (2006). Testing the Expectancy Disconfirmation Model of Citizen Satisfaction with Local Government. *Journal of Public Administration Research and Theory* 16 (4): 599–611. doi:10.1093/jopart/mui058.
- Van Ryzin, G. G. (2013). An Experimental Test of the Expectancy-Disconfirmation Theory of Citizen Satisfaction." *Journal of Policy Analysis and Management* 32 (3): 597–614. doi: 10.1002/pam.2013.32.issue-3.
- Vasileiou, K., Barnett, J. and Thorpe, S. (2018). Characterising and justifying sample size sufficiency in interview-based studies: systematic analysis of qualitative health

- research over a 15-year period. *BMC Med Res Methodology* 18, 148 (2018). <https://doi.org/10.1186/s12874-018-0594-7>
- Vaughn, C. J. (2000). The price-quality relationship, *Journal of food products marketing*, 6(1):11-24.
- Venkatesh, V. & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies, *Management Science*, 46(2): 186-204.
- Vlachos, P.A. and Vrechopoulos, A.P. (2008). Determinants of behavioural intentions in the mobile internet services market, *Journal of Services Marketing*, Vol. 22 No. 4, pp. 280-291. <https://doi.org/10.1108/08876040810881687>.
- Waithaka, S. T., Muthengi K. and Nzeveka J. (2015). Customers' perception on ease of use of internet banking in commercial banks in Kenya. *International Journal of novel research in management and economics*, 2(2): 66-74.
- Wahab, S., Suffian, A. Zahari, M., Al Momani, K., Azila N. and Nor, M. (2011). The influence of perceived privacy on customer loyalty in mobile phone services: An Empirical Research in Jordan. *IJCSI International Journal of Computer Science Issues*, Vol. 8, Issue 2, March 2011 ISSN (Online): 1694-0814 www.IJCSI.org.
- Wang C. and Wang Z. (2006-07). The impact of Internet on Service quality in Banking Sector. Lulea University of Technology, Department of Business Administration and Social Sciences, Division of Industrial Marketing and e-commerce, 2006-07 ISSN 16630817 – ISRN-LTU PB-EX 06/07-SE.
- Wang, Y, Lo, H and Yang, Y (2004). An Integrated Framework for Service Quality, Customer Value, Satisfaction: Evidence from China's Telecommunication Industry, *Information Systems Frontiers*, Vol. 6, No.
- Wang, Y., Zhang, Z. and Zhu M. (2020). The Impact of Service Quality and Customer Satisfaction on Reuse Intention in Urban Rail Transit in Tianjin, China. First Published January 7, Article <https://doi.org/10.1177/2158244019898803>.
- Wantao Y. and Ramakrishnan R. (2012). Retail service quality, corporate image and behavioural intentions: the mediating effects of customer satisfaction, *The International Review of Retail, Distribution and Consumer Research*, 22:5, 485-505, DOI: [10.1080/09593969.2012.711250](https://doi.org/10.1080/09593969.2012.711250).
- Wann-Hansson, C., Hallberg, I.R., Klevsgård R. and Andersson, E. (2005). Patients' experiences of living with peripheral arterial disease awaiting intervention: a qualitative study. *International Journal of Nursing Studies*, 42 (2005), pp. 851-862.
- Web Finance (2015).
- Webb, N. (1989). Peer Interaction and Learning in Small Groups. *International Journal of Educational Research*. 13. 21.
- Weiner, B. (1974). *Achievement Motivation and Attribution Theory*. Morristown, N. J. General Learning Press.

- Weinstein, A. (2012). *Superior Customer Value: Strategies for Winning and Retaining Customers*. 3rd Ed. Boca Raton, Florida: CRC Press-Taylor and Francis Group.
- Weitz, B. & Wensley, R. (2002). *Handbook of Marketing*, London: Sage Publications.
- Westbrook, R. A. (1980). Intrapersonal Affective Influences on Consumer Satisfaction with Products. *Journal of Consumer Research* 7, 49-54.
- Westbrook, R. A. (1987). Product/Consumption Based Affective Responses and Post-Purchase Processes. *Journal of Marketing Research*, 24, 258-270.
- White, M.D. and Marsh, E.E. (2006). Content analysis: A flexible methodology. *Library Trends* 55(1), 22-45 doi: 10.1353/lib.2006.0053
- Wiele, T., Boselie, P. and Hesselink, M. (2002). Empirical Evidence for the Relation between Customer Satisfaction and Business Performance. *Managing Service Quality*. 12. 184-193. 10.1108/09604520210429259
- William, O., Appiah, E. E. and Botchway, E. A. (2016). Assessment of Customer Expectation and Perception of Service Quality Delivery in Ghana Commercial Bank.
- Williams, M. D. J. (2009). Advancing the Development of Backbone Networks in Sub-Saharan Africa. *Policies to Improve the Development of Backbone Networks*.
- Wilson, K. (2019). *Does Competition Affect Quality? A Study of Internet Service Provision*.
- Wiwiek (2020). Analysis of the Effect of Trust, Privacy and Efficiency on E-Satisfaction In Forming E-Loyalty In Tokopedia Customers In Surabaya *Research In Management And Accounting* Vol. 3 No. 1 June 2020 12. DOI: <https://doi.org/10.33508/rima.v3i1.2744>.
- Wolak, R., Kalafatis, S. and Harris, P. (2009). An Investigation into the Four Characteristics of Services. *Journal of Empirical Generalisations in Marketing Science*, 3(1): 23-43.
- Wolfenbarger, M. and Gilly, M. C. (2003). Dimensional, measuring and predicting retail quality, *Journal of retailing*, 79(3): 183-198.
- Woodruff, R. B., Cadotte, E. R. and Jenkins, R. L. (1983). Modelling consumer satisfaction processes using experience-based norms. *Journal of marketing research*, 20(1): 296-304.
- World Atlas (2012). Available at: www.worldatlas.com/webimage/countrys/af. [Accessed 2 November 2012]
- World Atlas (2021). Nigeria Maps & Facts. Available at: <https://www.worldatlas.com/maps/nigeria>. [Accessed 12 December, 2021]
- World Bank (2021a). Nigeria Overview: Development news, research, data | World Bank. Available at: <https://www.worldbank.org/en/country/nigeria/overview>. [Accessed 12 December 2021]

- World Bank (2021b). GDP growth (annual %) - Nigeria | Data (worldbank.org). Available at: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=NG>. [Accessed 12 December 2021]
- World Bank (2009). *Information and Communications for Development 2009: Extending Reach and Increasing Impact*. Washington.
- World Development Report (2016). *Enabling Digital Development. How the Internet Promotes Development*. Available at: documents.worldbank.org/curated/en/896971468194972881/310436360_20160263021502/additional/102725-PUB-Replacement-PUBLIC.pdf [Accessed 3 March 2020].
- World Economic Forum (2014). *The 10 African cities poised for take-off* by Mark Bradford.
- World Economic Forum (2016a). *Internet for all, a framework for accelerating internet access and adoption* April 2016. Prepared in collaboration with the Boston Consulting Group.
- World Economic Forum (2016b). *4 billion people still don't have internet access. Here's how to connect them*.
- Wu, Y. and Turner, P (2006). *The Relationship of Bandwidth, Interaction, and Performance in Online Courses: A Study* *Journal of Distance Learning Administration*, v9 n1 Spr 2006.
- Wunnava, P. V and Leiter D.B. (2008). *Determinant of Inter-Country Internet Diffusion Rates*.
- Xiaoming, H. and Kay, C. S. (2004). *Factors Affecting Internet Development: An Asian Survey*. 9(2);1-10.
- Lewis, B. R. (1989). *Quality in Service Sector - A Review*. *International Journal of Brand Marketing*, 7(5): 4-12.
- Xu, y. (2007). *Customer Perception, Customer Satisfaction, and Customer Loyalty within Chinese Securities Business. Towards a Mediation Model for Predicting Customer behaviour*. *Journal of relationship marketing*, 5(4): 1-10.
- Yang, Z., Peterson, R., and Huang, L. (2001). *Taking the Pulse of International Pharmacies*. *Marketing Health Services*, Summer 5-10.
- Yang, Z. and Fang X. (2004). *Service Quality Dimensions and Their Relationship with Satisfaction. A Content Analysis Brokerage Service*. *International Journal of Service Industry Management*, 15(3): 1-10.
- Yang, Z., Bi, Z. and Zhou, N. (2005). *The double jeopardy phenomenon and the mediating effect of brand penetration between advertising and brand loyalty*. *J. Advertising Res.* 45 (2), 221.
- Yap, S. F and Kew, M. L. (2007). *Service quality and customer satisfaction: antecedents of customer's re-patronage intentions*. *Sunway Academic Journal*, 4. pp. 59-73.
- Yarimoglu E. (2011). *Customer Service Effects on Customer Satisfaction and Customer Loyalty: A Field Research in Shopping Centers in Izmir City – Turkey*. *International Journal of Business and Social Science* 2.

- Yatin, D. L. and Thakkar, H. (2014). A Literature Review on Quality and Productivity Improvement in Foundry Industry. *Journal of Emerging Technologies and Innovative Research*, 1(7): 2349-5162.
- Yi, Y. (1990). A Critical Review of Consumer Satisfaction. In V. A. Zeithaml (Ed.). *Review of Marketing* (Pp. 68-123). Chicago: American Marketing Association.
- Yi, Y. (1991). A Critical Review of Consumer Satisfaction. In V. Zeithaml (Ed.). *Review of Marketing*. Chicago: American Marketing Association Yung & Chan, 2001.
- Yin, R. K. (1984). *Case Study Research: Design and Methods*. Newbury Park, Sage Publications, Page 23.
- Zahari, W., Yusoff, W. and Ismail, M. (2008). FM-SERVQUAL: A New Approach of Service Quality Measurement Framework in Local Authorities. *Journal of Corporate Real Estate*, 10(2):130-144.
- Zaheer Z. A, Rahman S. and Rehman K. (2011). Impact of online service quality on customer satisfaction in banking sector of Pakistan Mohsin. Department of Management Sciences, Iqra University, H-9, Islamabad, Pakistan *African Journal of Business Management* Vol. 5(30), pp. 11786-11793, 30 November, 2011 Available online at <http://www.academicjournals.org/AJBM> DOI: 10.5897/AJBM10.379 ISSN 1993-8233 ©2011 Academic Journals
- Zeithaml, V. A., Parasuraman A. and Leonard I. B. (1985). Problems and strategies in services marketing. *Journal of marketing*, 49(1): 33-46.
- Zeithaml, V. A., Berry, L. L. and Parasuraman, A. (1988). Communication and control processes in the delivery of service quality. *Journal of marketing*, 52(2): 35-48.
- Zeithaml, V. A., Parasuraman, A. and Berry, L. L. (1990). *Delivering quality service*. The free press, New York.
- Zeithaml, V., Berry, L., and Parasuraman, A. (1993). The nature and determinants of customer expectations of service. *Journal of the academy of marketing science*, 21(1): 112-113.
- Zeithaml, V. A. and Bitner, M. J. (1996). *Service Marketing*, Us: Mcgraw-Hill.
- Zeithaml, V.A., Parasuraman, A. and Malhotra, A. (2000). A conceptual framework for understanding e-service quality: implications for future research and managerial practice. *Marketing science institute, working paper, report number 00-115*.
- Zeithaml, V. A. (2002). Service excellent in electronic channels. *Managing service quality* 12 (3): 135-138.
- Zeithaml, V, A. and Bitner, M. J. (2003). *Service marketing: integrating customer focus across the firm*, New York: McGraw-Hill Higher Education.
- Zeithaml, V. A., Bitner, M. J. and Gremler, D. D. (2006). *Services marketing: integrating customer focus across the firm*. 4th edn. New York: McGraw-Hill/Irwin.
- Zeithaml, V. A. and Bitner, M. J. (2009). *Service Marketing: Integrating Customer Focus Across the Firm*, New York: McGraw-Hill Higher Education.

- Zhao, Y. L. and Benedetto, C. A. D. (2013). Designing service quality to survive: empirical evidence from Chinese new ventures. *J. Bus. Res.* 66,1098–1107.
- Zheleva, M., Schmitt, P., Vigil, M. and Belding, E. (2015). Internet Bandwidth Upgrade: Implications on Performance and Usage in Rural Zambia. *Information Technologies and International Development*, 11(2), 1–17. 1.
- Zoltick, M. M., Maisel, J. B., Ernst, R. F. and Manbeck, P. C. (2018). Data Privacy And Cyber Security: The Importance of a Proactive Approach June 2018.

APPENDICES

APPENDIX I

Participant Information Sheet for Focus Group Discussion - REF UEP2014SEP03 EXTENSION

This is a PhD Research Study titled “**An Evaluation of the Extent to which Users’ Internet Service Uptake is Influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria**”.

The study is being carried out by **Ayodele Rowland Adeyemi** of Buckinghamshire New University, United Kingdom and findings will be used to guide service development in Abuja.

The main objective of this study is to adapt a service quality model that will assess users’ perception of the quality of the ISP Sector’s services and to ascertain how this perception influences their satisfaction and service uptake in FCT Abuja, Nigeria.

You have been sent this information sheet because you represent one or more ‘Internet Service’ interest groups (such as Internet Service Subscribers, Institutions, Internet Service Providers (ISPs)/Telecoms Operators and Policy/Regulatory Agencies). I would therefore greatly value your opinions or perceptions of Internet service quality delivery and would also like to hear your suggestions that will enhance the Internet service quality delivery. This information will be used to recommend actions for improving the quality of Internet services in FCT Abuja, Nigeria.

The focus group discussion will be held in FCT Abuja, Nigeria and will last for about 1 hour 30 minutes.

Any information you provide will be treated in confidence, your name will not be associated with any records made of focus group discussions. Audio recording of the focus group discussions will be conducted to ensure that the thoughts, opinions and ideas of the group are accurately represented. Individuals and organizations will not be

identified in focus group records and the audio recording will be kept securely and will be destroyed after it is transcribed and analysed.

You are not in any way obliged to participate. If you do wish to participate, you may decline to answer specific questions and you may change your mind and withdraw from the study (without having to say why you no longer wish to take part). You may also request to withdraw your data up until **31st May, 2019**. Although all information will remain anonymised, it will not be possible to withdraw data after data analysis has taken place. In compliance with UK university research protocol, anonymised data will be archived at Buckinghamshire New University.

Although it is clearly understood that many Internet service issues form part of everyday conversation, participants are asked to respect each other's confidentiality and not to reference the specific discussions that take place nor to identify any individuals participating after focus groups have taken place. The following guidelines will need to be observed by participants:

- Treat the others with respect;
- Discussion needs to stay on the topic;
- Everyone needs to listen (even when disagreeing);
- People to speak one at a time;
- There will be a break if needed;
- People may leave at any point if they wish.

You are also assured that your name will not be used for any written part of this study, such as reports, publications, web pages and other research outputs. Your participation is on a voluntary basis. If at any point you decide that you no longer wish to participate, please inform the lead researcher, Ayodele Rowland Adeyemi. If you do wish to be involved in a focus group discussion you will be issued a consent form to sign. In case you have question (s) contact the lead researcher, Ayodele Rowland Adeyemi, 73 Aguiyi

Ironsi Street, Maitama, Abuja, Nigeria, Phone No.-08023299181, email ayoasp@yahoo.com. Thanking you for agreeing to participate in the Focus Group Discussion.

APPENDIX II

CONSENT FORM

Consent Form for Focus Group Discussion/Interview/Questionnaire on “An Evaluation of the Extent to which Users’ Internet Service Uptake is Influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria”.

Please tick the appropriate boxes

1. I have read and understood the project information sheet.....

2. I have been given the opportunity to ask questions about the project.....

I agree to take part in the study titled “**An Evaluation of the Extent To which Users’ Internet Service Uptake is Influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria**”.

3. Taking part in this study will include ***providing answers to questionnaires or being interviewed/discussions with being recorded or video***.....

4. I understand that my taking part is voluntary; I can withdraw from the study and I will not be asked questions about why I no longer want to take part before **31st May, 2019** and after which it will not be possible to withdraw data as it will become part of the analysis.....

5. I understand that my name will not be used where I have provided answers to the questionnaire or granted interviewed/discussion based on the study which will be written as part of this study, in reports, publications and other research outputs....

6. I generally understand that my name, my personal details such as phone number or address will not be required and used in this project.....

7. I understand that my words may be quoted in publications, reports, web pages, and other research outputs but my name will not be used.....

- 8. I agree for the data I provided (which is already part of data analysis of the study or thesis/report) to be archived at the UK Data Archive
- 9. I understand that other researchers will have access to these data only for research/academic purposes.....
- 10. I understand that other researchers may use my words in publications, reports, web pages and other research output.....
- 11. I agree to assign the copyright I hold in any materials related to this project to Ayodele Rowland Adeyemi (Researcher).....

On this basis I am happy to participate in the study titled **“An Evaluation of the Extent to which Users’ Internet Service Uptake is Influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria”**.

- 12. Name of ParticipantSignature..... Date.....
- 13. Telephone Number (s) of Participant.....
- 14. Name of Researcher.....Signature.....Date.....

If you have any queries or concerns, please contact: Ayodele Rowland Adeyemi,

Phone No: +234 8023299181, email: ayoasp@yahoo.com

One copy to be kept by the participant, one to be kept by the researcher.

APPENDIX III

Guidelines for Participants and Focus Group Discussion Questions - REF

UEP2014SEP03 EXTENSION

Research Title - “An Evaluation of the Extent to which Users’ Internet Service Uptake is Influenced by Customer Perceptions of Quality Internet Services: A Study in Abuja, the Federal Capital Territory, Nigeria”.

The study is being carried out by **Ayodele Rowland Adeyemi** of Buckinghamshire New University, United Kingdom and findings will be used to guide service development in Abuja.

The main objective of this study is to adapt a service quality model that will assess users’ perception of the quality of the ISP Sector’s services and to ascertain how this perception influences their satisfaction and service uptake in FCT Abuja, Nigeria.

You have been sent this information sheet because you represent one or more ‘Internet Service’ interest groups (such as Internet Service Subscribers, Institutions, Internet Service Providers (ISPs)/Telecoms Operators and Policy/Regulatory Agencies). I would therefore greatly value your opinions, perceptions and expectations of Internet service quality delivery and would like to hear your suggestions that will enhance the Internet service quality delivery. This information will be used to recommend actions for improving the quality of Internet services in FCT Abuja, Nigeria.

The focus group discussion will last for about 1 hour 30 minutes.

Any information you provide will be treated in confidence, your name will not be associated with any records made of focus group discussions. Audio recording of the focus group discussions will be conducted to ensure that the thoughts, opinions and ideas of the group are accurately represented. Individuals and organizations will not be identified in focus group records and the audio recording will be kept securely and will be destroyed after as it is transcribed and analysed.

You are not in any way obliged to participate. If you do wish to participate, you may decline to answer specific questions and you may change your mind and withdraw from the study (without having to say why you no longer wish to take part). You may also request to withdraw your data up until **31st May, 2019**. Although all information will remain anonymised, it will not be possible to withdraw data after data analysis has taken place. In compliance with UK university research protocol, anonymised data will be archived at Buckinghamshire New University.

Although it is clearly understood that many internet service issues form part of everyday conversation, participants are asked to respect each other's confidentiality and not to reference the specific discussions that take place nor to identify any individuals participating after focus groups have taken place. The following guidelines will need to be observed by participants:

- Treat the others with respect;
- Discussion needs to stay on the topic;
- Everyone needs to listen (even when disagreeing);
- People to speak one at a time;
- There will be a break if needed;
- People may leave at any point if they wish.

You are also assured that your name will not be used for any written part of this study, such as reports, publications, web pages and other research outputs.

Your participation is on a voluntary basis. If at any point decide that you no longer wish to participate, please inform the lead researcher, Ayodele Rowland Adeyemi. If you do wish to be involved in a focus group discussion you will be issued a consent form to sign.

Thanking you for agreeing to participate in the Focus Group Discussion.

The questions for discussions are as follow.

Q1. What are the patterns of Internet uptake by customers in FCT, Abuja, Nigeria – i.e., (a) Are they conversant with Internet services? (b) Why do customers use Internet services or what are the type of services they use Internet for? (c) When and how frequently do they use these services? d) How long do they spend daily/weekly on the Internet? (e) Where do they access the Internet and through which devices do, they access the Internet? (f) What type of Internet Access connectivity and technology do their ISPs deploy to provide them Internet services?

Q2. What are your views on the quality of Internet services delivery (ISPs' service performance) and the factors that Influence Quality of Service Delivery in FCT, Abuja, Nigeria?

Q3. What are the issues limiting or moderating Internet service provision and users' uptake?

Q4. What are customers' perceptions and expectations on Internet service quality delivery in FCT, Abuja, Nigeria? i.e. (a) what do the customers perceive? (b) what do customers expect to receive from the performance or quality of ISPs' services? (c) what gaps exist for remedial intervention? (d) what is the overall customers' satisfaction of with ISPs? (e)What influences do they have on customers' behavioural intention or Internet uptake?

Q5. What Guidelines would Enhance Quality of Internet Service Delivery in FCT, Abuja, Nigeria?

APPENDIX IV - ETHICS APPROVALS



14th March 2016

Mr Ayodele Adeyemi
Bucks New University
Queen Alexandra Road
High Wycombe
HP11 2JZ

Dear Ayodele

Ethical approval: Ref UEP2014Sep03 Extension

I am writing to confirm that ethical approval was granted by the University Research Ethics Panel of Buckinghamshire New University on 10 March 2016 for proposed stakeholder interviews as an additional part of your project:

“The Impact of Customers' Perceptions and Expectations of Internet Service Quality Delivery on the Growth of Internet Services in Abuja, Nigeria.”

This approval is valid for data collection between 10 March 2016 and 7 June 2018.

The original project (“A Study on Internet Penetration in Nigeria.”) received ethical approval on 17 November 2014 for data collection to 31 March 2015.

Please ensure that you quote the above reference number as evidence of ethical approval and in all materials used to recruit participants.

The Research Unit must be notified of any amendments to the proposed research or any extension to the period of data collection.

I hope that your research project goes well.

Yours sincerely,

A handwritten signature in black ink, appearing to read "M Nakisa".

Dr M. Nakisa
Secretary to the University Research Ethics Panel
Research Unit
Academic Quality Directorate

Buckinghamshire New University
High Wycombe Campus
Queen Alexandra Road
High Wycombe
Buckinghamshire HP11 2JZ

Telephone: +44 (0) 1494 522 141
Facsimile: +44 (0) 1494 524 392
Twitter: @bucksnewuni
Facebook: bucks.ac.uk/facebook
bucks.ac.uk

18th November 2014

Ayodele Adeyemi
Faculty of Design Media & Management
Bucks New University
Queen Alexandra Road
High Wycombe
HP11 2JZ

Dear Ayodele

Application for Ethical approval: Reference UEP2014Sep03

I am writing to confirm that Ethical approval was granted by the University Ethics Panel of Buckinghamshire New University on the 17th November 2014 for your project titled:

"A Study on Internet Penetration in Nigeria."

I hope that your research project goes well.

Yours sincerely,



Dr M. Nakisa
Secretary to the University Ethics Panel
Research Unit
Academic Quality Directorate

APPENDIX V

(a) ANALYSIS OF FOCUS GROUP DISCUSSIONS CONDUCTED AMONG DOMESTIC/INDIVIDUAL INTERNET SERVICE SUBSCRIBERS

Table 1 displayed the profile of all participants in the focus group discussions for Domestic/Individual Internet Service Subscribers.

Table 1: Domestic Internet Subscriber (DIS) Participant Profiles

Code	Background of respondent	Gender
DIS1	DIS1 is 30 years old, he is a public sector employee with 8 years of job experience after his BSc degree. He has been using the internet for personal and official activities for a period of 11 years.	Male
DIS2	DIS2 is 48 years old, she is a PhD degree holder and has 12 years of experience as a university lecturer. She has been using the internet since its introduction for personal and official activities.	Female
DIS3	DIS3 is 40 years old, she is a school proprietor with 9 years of business experience after her BSc degree. She has been using the internet for both business and personal activities for a period of 15 years.	Female
DIS4	DIS4 is 20 years old, a student who is currently in his second year in the university. He has been using the internet for a period of 5 years majorly for social activities.	Male
DIS5	DIS5 is 37 years old, he works in a financial institution and has 6 years job experience after his HND. He has been using the internet for social and official activities for a period of 10 years.	Male
DIS6	DIS6 is 27 years old, a public sector employee with 4 years of job experience after her BSc degree. She has been using the internet service for both personal and official activities for a period of 9 years.	Female
DIS7	DIS7 is 25 years old, a fresh BSc graduate who has been using internet service for over 6 years for his social, academic and job-hunting activities.	Male
DIS8	DIS8 is 31 years old; she is a public sector employee with 5 years of job experience after her HND. She has basically been using the internet for personal activities for a period of 7 years.	Female
DIS9	DIS9 is 45 years old, he is an entrepreneur with 15 years of business experience after his HND qualification. He has been using the internet for both business and personal activities for a period of 13 years.	Male
DIS10	DIS10 is 26 years old, a developer in an IT firm, also a part time fashion designer, she has been using the internet for over 4 years for social and learning activities.	Female
DIS11	DIS11 is 36 years old, she is a private sector employee with 8 years of job experience after his HND. She has been using the internet for personal and official activities for a period of 12 years.	Female
DIS12	DIS12 is 45 years old, she is a BSc degree holder with 10 years of experience as an employee in one of the ISPs in Abuja. She has been using the internet for over 15 years for social and official activities.	Female
DIS13	DIS13 is 30 years old, an experienced vehicle mechanic who has been using the internet service for social activities for a period of 8 years.	Male
DIS14	DIS14 is 29 years old, a secondary school teacher who has been using internet service for over 9 years for his social and academic activities.	Male

Code	Background of respondent	Gender
DIS15	DIS15 is 37 years old, she is a public sector employee with 11 years of job experience after her HND. She has been using the internet for personal activities for a period of 12 years.	Female
DIS16	DIS16 is 27 years old, an experienced Business entrepreneur who has been using the internet service for social activities for a period of 8 years.	Female
DIS17	DIS17 is 28 years old, a banker with 3 years of job experience after his BSc degree. He has been using the internet service for both personal and official activities for a period of 9 years.	Male
DIS18	DIS18 is 22 years old, a student in the University who has been using internet service for over 6 years for his personal and academic activities.	Male
DIS19	DIS19 is 37 years old, she is a public sector employee with 15 years of job experience after her BSc degree. She has basically been using the internet for personal activities for a period of 16 years.	Female
DIS20	DIS20 is 44 years old, she is an entrepreneur with 20 years of business experience after her HND. She has been using the internet for both business and personal activities for a period of 15 years.	Female
DIS21	DIS21 is 29 years old, a BSc graduate who is currently an apprentice in a printing press. He has used the internet all through his university days for personal, academic activities and job hunting.	Male
DIS22	DIS22 is 31 years old, she is a public sector employee with 8 years of job experience after her HND. She has been using the internet for personal and official activities for a period of 10 years.	Female

Table 2 presents coding frame for the analysis of the focus groups' discussions among domestic /individual Internet service subscribers on patterns of Internet service uptake in FCT Abuja, Nigeria (Questions Q1a – Q1f) with data extract, initial code, theme and main theme/category.

Table 2 Coding Frame for the Analysis of the Focus Groups' Discussions Among Domestic/Individual Internet Service Subscribers on Patterns of Internet Service Uptake in FCT Abuja, Nigeria (Questions Q1a – Q1f).

Participant	Data extract	Initial code	Theme	Main theme/Category
All	<i>I am very conversant with the Internet and the available services via the internet. I want to believe that everyone of us in this group discussion are also conversant with the Internet and the</i>	Conversant with Internet. Conversant with services available through Internet.	Conversant with Internet services.	Customers are conversant with Internet services.

	<i>services through it (Participant DIS3).</i>			
All	<i>In the case of what I use the Internet for, I want say categorically that I used the Internet for various official and individual functions such as email, accounting services, online financial transactions, report submissions, academic activities, social media activities and even general information search” (Participant DIS2)</i>	Use Internet for official functions Use Internet for individual functions Perform services such as email, accounting services, online financial transactions, report submissions, academic activities, social media activities and general information search.	Use Internet to perform official and individual functions.	Use Internet for institution/business and individual/ domestic purposes.
DIS1 DIS4 DIS6 DIS7 DIS10 DIS13 DIS16 DIS17 DIS18	<i>I use the Internet for up to 16 hours a day, the only time I don’t use it is when I am sleeping. My job depends on the availability of the Internet and the job has no specified time because it continues beyond the office, so I would say I am an Internet addict. It helps to improve service delivery. (Participant DIS1).</i>	Use Internet at all times. Job depends on Internet at all times.	Use Internet frequently for job to improve service delivery	Improved service delivery
DIS4, DIS5 DIS8, DIS9 DIS11,DIS13 DIS15,DIS19 DIS22	<i>Apart from mobile phone laptop, I also used the desktop computer especially in my place of work to access the Internet services (Participant DIS8).</i>	Use mobile phone to access Internet services. Use laptop computer to access Internet services. Use desktop computer to access Internet services.	Use mobile phones, laptop and desktop computers to access Internet services.	Customers used mobile phones, laptop and desktop computers to access Internet services.

Figure 1 presents Thematic Map for the analysis of the focus groups’ discussions among domestic/individual Internet service subscribers on patterns of Internet uptake in FCT Abuja, Nigeria - (Questions Q1a – Q1f) with data extract, initial code, theme and main theme/category.

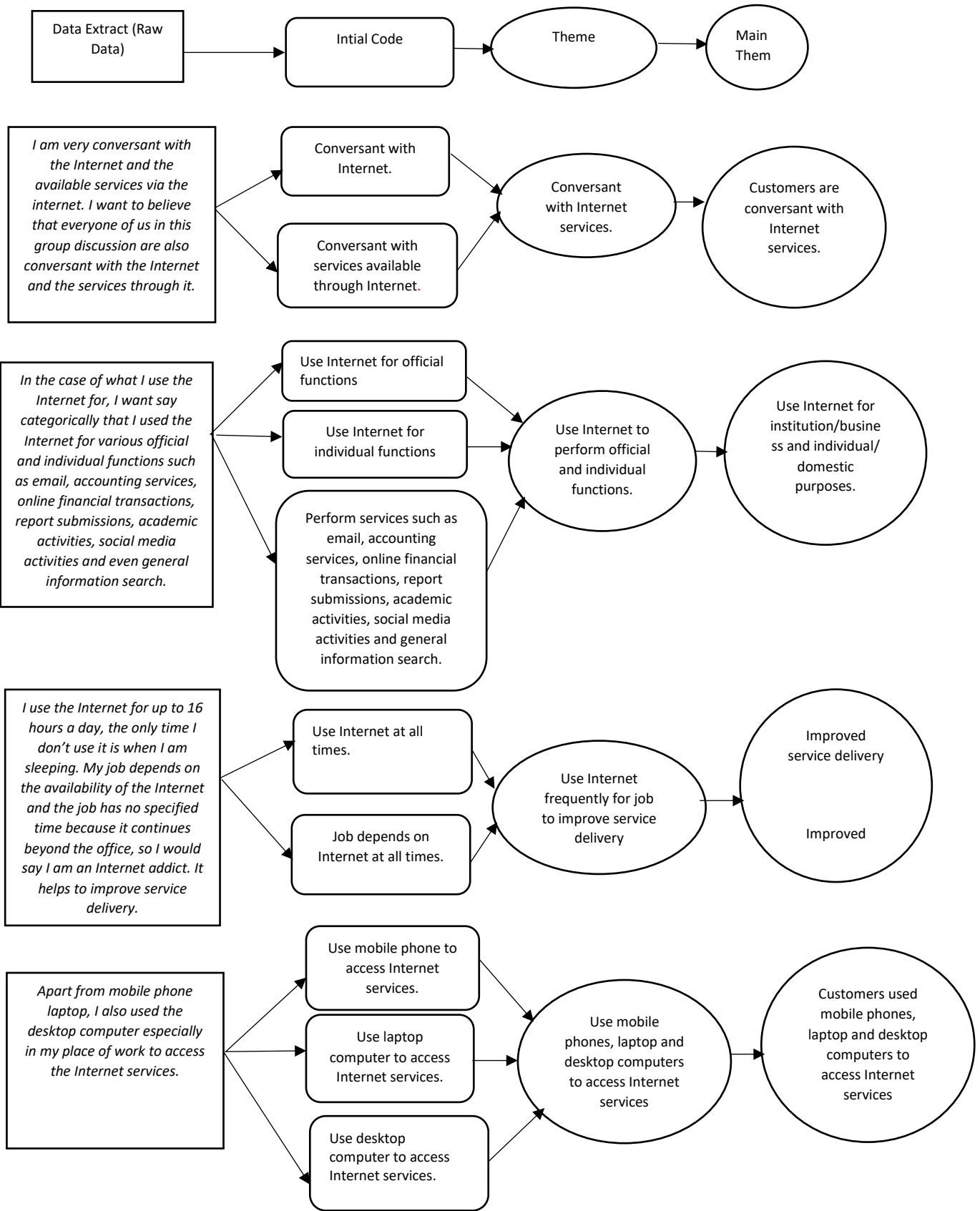


Figure 1 Thematic Map for the Analysis of the Focus Group Discussions Among Domestic/Individual Internet Service Subscribers on Patterns of Internet Service Uptake in FCT Abuja, Nigeria - Questions Q1a – Q1f.

Table 3 presents coding frame for the analysis of the focus groups' discussions among domestic/individual Internet service subscribers on ISPs' service performance in FCT Abuja, Nigeria (Questions Q2, Q3 and Q4a, b & c) with data extract, initial code, theme and main theme/category.

Table 3 Coding Frame for the Analysis of the Focus Groups' Discussions of Domestic/Individual Customers on ISPs' Service Performance in FCT Abuja, Nigeria (Questions Q2, Q3 and Q4a, b & c).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
All	<i>Most time I am limited to using the desktop computer to access the Internet because of the incessant power failure where I live. I also experience poor network quality. (Participant DIS11).</i>	Incessant power failure limit access to Internet services.	Network quality/network performance is not satisfactory	ISPs' service performance is not satisfactory/good.
DIS3, DIS4 DIS5, DIS8 DIS11, DIS12 DIS15, DIS16 DIS19, DIS22	<i>where I live have poor network quality as I experience poor Internet coverage and frequent Internet disconnection (Participant DIS4).</i>	Poor network quality and Internet coverage. Frequent Internet disconnection.	Network quality/network performance is not satisfactory	ISPs' service performance is not satisfactory/good.
DIS6, DIS7 DIS11, DIS12 DIS15, DIS16 DIS19, DIS20	<i>most times the upload and particularly the downloading of files could be slow due to slow Internet connection speed that we experience in our area (Participant DIS6).</i>	Slow upload and download speed. Slow Internet connection.	Network quality/network performance is not satisfactory	ISPs' service performance is not satisfactory/good.
DIS9	<i>The service is also affected by weather, I have noticed that a slight change in weather especially when it is about to rain affects the quality of service, thereby, one has to wait till the weather is very clear before the service comes back to normal and if any important activity is to be carried out during this period of weather change, it will become impossible for it to be done (Participant DIS9).</i>	Weather change affects quality of service.	Network quality/network performance is not satisfactory	ISPs' service performance is not satisfactory/good.

DIS3, DIS5 DIS8, DIS15 DIS19, DIS22	<i>During bad weather such as when there is heavy rain or stormy weather, I used to experience Internet service failure (Participant DIS5).</i>	Heavy rain and stormy weather cause Internet service failure	Network quality/network performance is not satisfactory	ISPs' service performance is not satisfactory/good
All	<i>The recent University Matriculation Examination via the Internet was not successful due to poor network quality which varies from one location to the other. It was discovered that most of the candidates got below the required marks for entry as compared to the previous examinations held while some centre examinations were cancelled due to poor Internet services and there were service failures, delay on the network or Internet service connection very slow and hanging leading to poor outcomes of the whole examinations". (Participants DIS15 & 20)</i>	Poor network quality and Service failure Slow network connection	Network performance /network quality is not satisfactory	ISPs' service performance is not satisfactory/good
All	<i>I do not think I have value for money on the Internet services I obtain from my ISPs because I am not satisfied with their services. The more reason I operate with more than one ISPs. (Participant DIS6).</i>	No value for money. Not satisfied with Internet services.	ISPs' service performance is not satisfactory as there is no value for money.	ISPs' service performance is not satisfactory/good

Figure 2 presents Thematic Map for the analysis of the focus groups' discussions among domestic/individual Internet service subscribers on ISPs' Service Performance in FCT Abuja, Nigeria - (Questions Q2, Q3 and 4a, b & c) with data extract, initial code, theme and main theme/category.

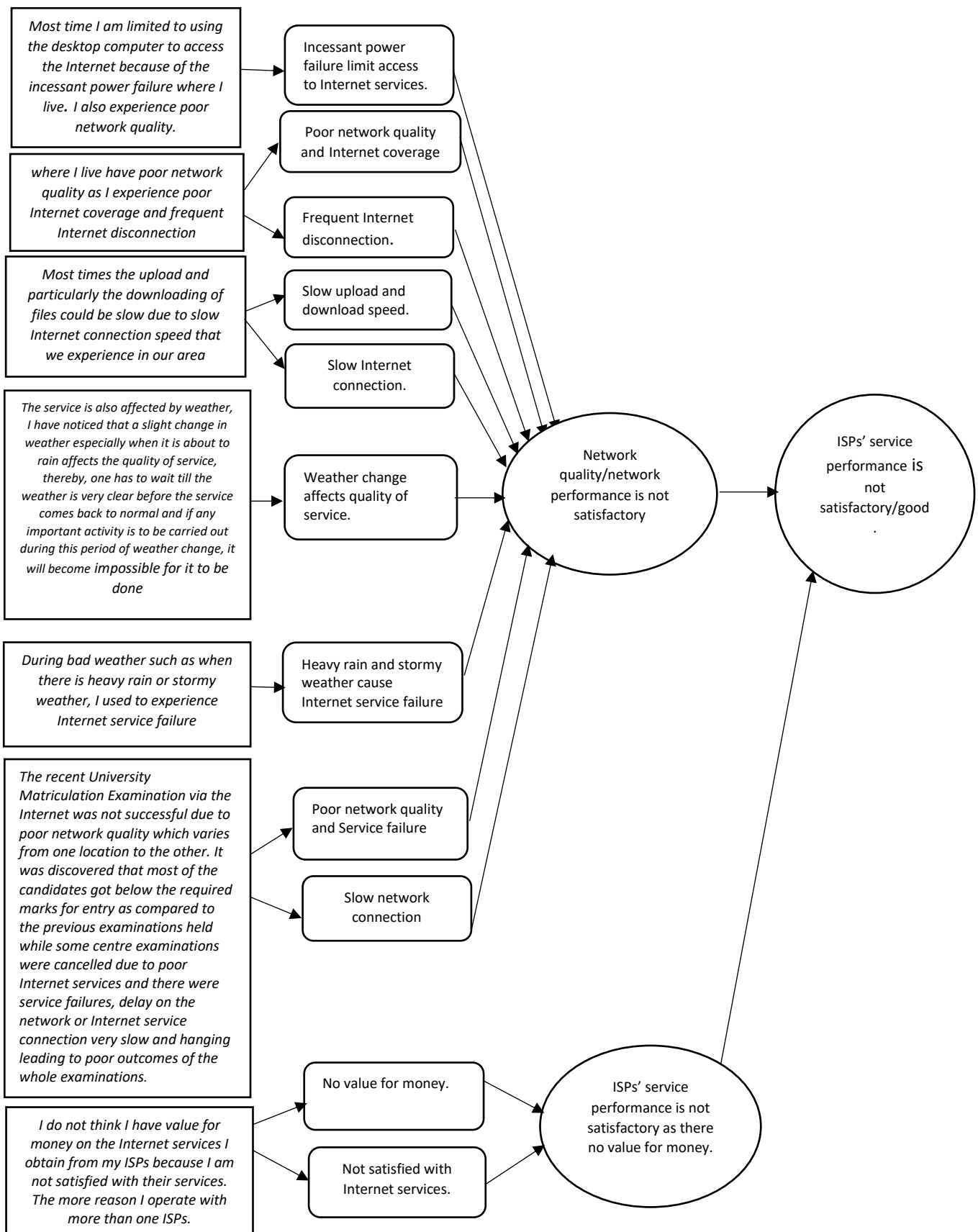


Figure 2 Thematic Map for the Analysis of the Focus Group Discussions of Domestic/Individual Customers on ISPs' Service Performance in FCT Abuja, Nigeria – Questions (Q2, Q3 and Q4a, b & c).

Table 4 presents coding frame for the analysis of the focus groups' discussions among domestic /individual Internet service subscribers on ISPs' service performance in FCT Abuja, Nigeria (Questions Q4d & Q4e) with data extract, initial code, theme and main theme/category.

Table 4 Coding Frame for the Analysis of the Focus Groups' Discussions of Domestic/Individual Customers on ISPs' Service Performance in FCT Abuja, Nigeria (Questions Q4d & Q4e).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
All	<i>I experienced no satisfaction in the services I received from the ISPs and I feel for most of us, we use the services because it is the only means of getting job done, obtaining information and communication with peers and loved ones, and also staying updated with events and happenings in the society (Participant DIS17)</i>	No satisfaction on the Internet services provided by ISPs. Use the services because it is necessary to get job done	ISPs' service performance is not satisfactory, it only used because it is necessary to get job done.	ISPs' service performance is not satisfactory/good
All	<i>What I do is that when I notice that there is constant drop in quality of a particular ISP that I am subscribed to, at some point in time, I will stop patronising such ISP and look for better one that will at least provide an improved service (Participant DIS12).</i>	Constant drop in quality of service. Stop patronage and Switch to another ISP with improved service.	ISPs' service performance is not satisfactory No customer loyalty.	ISPs' service performance is not satisfactory/good
All	<i>Although the responses may not be too immediate, we usually get feedback from customer care service centre (Participant DIS8).</i>	Delay in response from customer service centre. Usually get feedback.	Customer service is not satisfactory	ISPs' performance is not satisfactory/good.
All	<i>The recent automation of customer services makes it difficult for complaints to be reported as people end up being discouraged because of the almost impossible task of getting through to the customer care services (Participant DIS9).</i>	Automation of customer service Difficulty to access customer care services	Customer service is not satisfactory	ISPs' performance is not satisfactory /good.

Figure 3 presents Thematic Map for the analysis of the focus groups' discussions among domestic/individual Internet service subscribers on ISPs' Service Performance in FCT Abuja, Nigeria – Questions (Q4d & e) with data extract, initial code, theme and main theme/category.

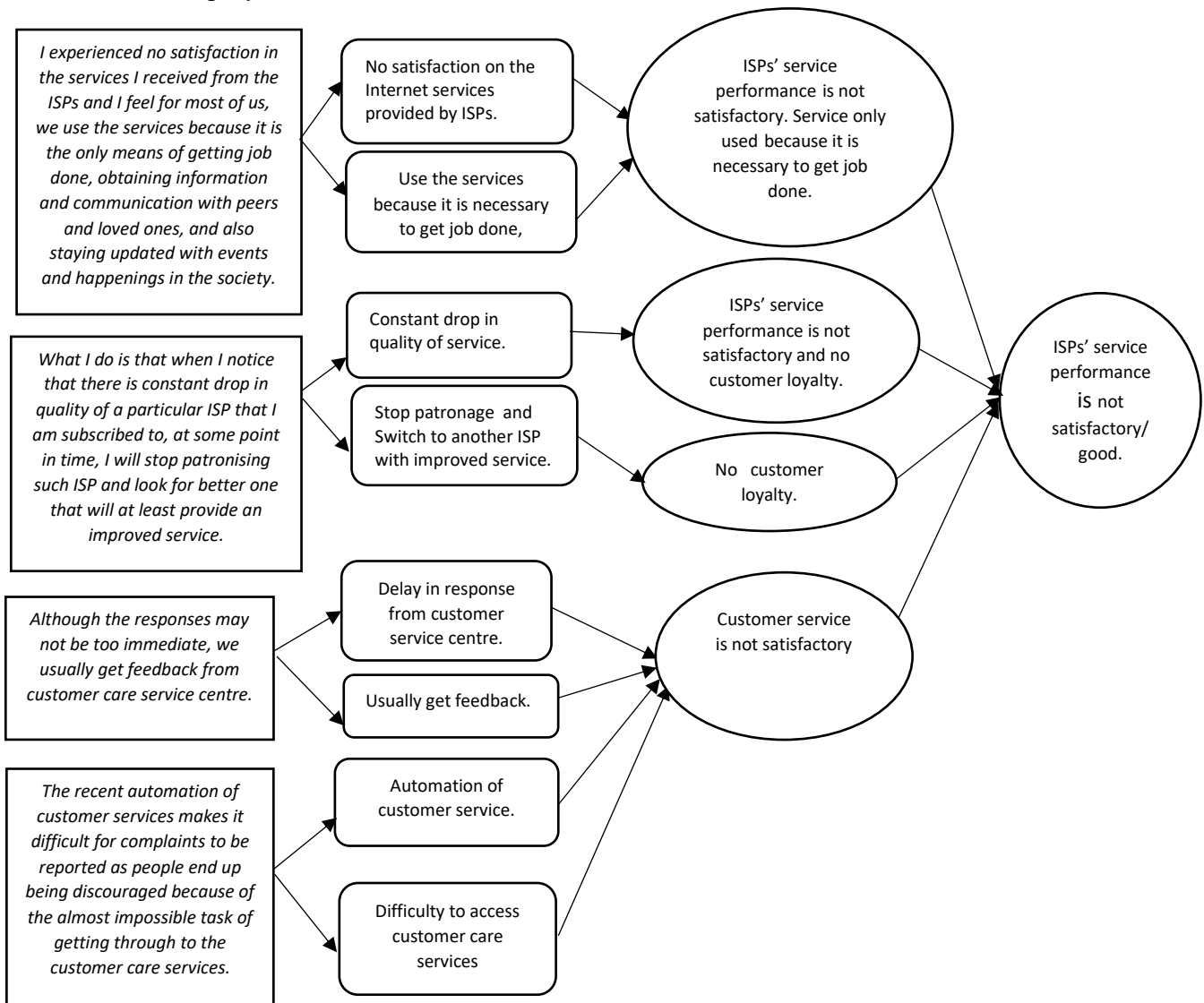


Figure 3 Thematic Map for the Analysis of the Focus Group Discussions of Domestic/Individual Customers on ISPs' Service Performance in FCT Abuja, Nigeria – Questions (Q4d & e).

Table 5 presents coding frame for the analysis of the focus groups' discussions among domestic /individual Internet service subscribers on factors that influence ISPs' service performance in FCT Abuja, Nigeria - Question (Q5) with data extract, initial code, theme and main theme/category.

Table 5 Coding Frame for the Analysis of the Focus Groups' Discussions of Domestic/Individual Customers on Factors that influence ISPs' Service Performance in FCT Abuja, Nigeria – Question (Q5).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
All	<i>If the government can provide adequate Internet connectivity backbone infrastructure, Internet bandwidth and appropriate regulatory activities, it would enhance service performance of the ISPs (Participant DIS19)</i>	<i>Adequate Internet connectivity backbone infrastructure, Internet bandwidth and appropriate regulatory activities would enhance service performance of ISPs.</i>	<i>Adequate Internet connectivity backbone infrastructure, Internet bandwidth and appropriate regulatory activities would influence ISPs' service performance.</i>	<i>ISPs' service performance is influenced by adequate Internet connectivity backbone infrastructure, Internet bandwidth, appropriate policy and regulation.</i>
DIS4 DIS5 DIS7 DIS10	<i>It will need to include adequate government policy, provision of adequate infrastructure, including adjacent infrastructure such as stable power supply (Participants DIS4, DIS5, DIS7, and DIS10).</i>	<i>Adequate government policy, provision of adequate infrastructure, including adjacent infrastructure such as stable power supply, would enhance service performance of ISPs.</i>	<i>Adequate government policy, provision of adequate infrastructure, including adjacent infrastructure such as stable power supply would influence ISPs' service performance.</i>	<i>ISPs' service performance is influenced by adequate Internet connectivity backbone infrastructure, Internet bandwidth, appropriate policy and regulation.</i>
DIS7 DIS9 DIS10 DIS11	<i>If government is strict with regulation and guidelines are made to provide direction and also there are sufficient backbone infrastructure and bandwidth facility. Then there would be an increase in service quality delivery or performance of ISPs' service (Participants DIS11).</i>	<i>Government strict regulation and guidelines to provide direction. Sufficient backbone infrastructure and bandwidth facility. Increase in ISPs' service performance.</i>	<i>Government strict regulation and guidelines; sufficient backbone infrastructure and bandwidth facility would increase ISPs' service performance.</i>	<i>ISPs' service performance is influenced by adequate Internet connectivity backbone infrastructure, Internet bandwidth, appropriate policy and regulation.</i>

Figure 4 presents Thematic Map for the analysis of the focus groups' discussions among domestic/individual Internet service subscribers on factors that influences ISPs' Service Performance in FCT Abuja, Nigeria - Question (Q5) with data extract, initial code, theme and main theme/category.

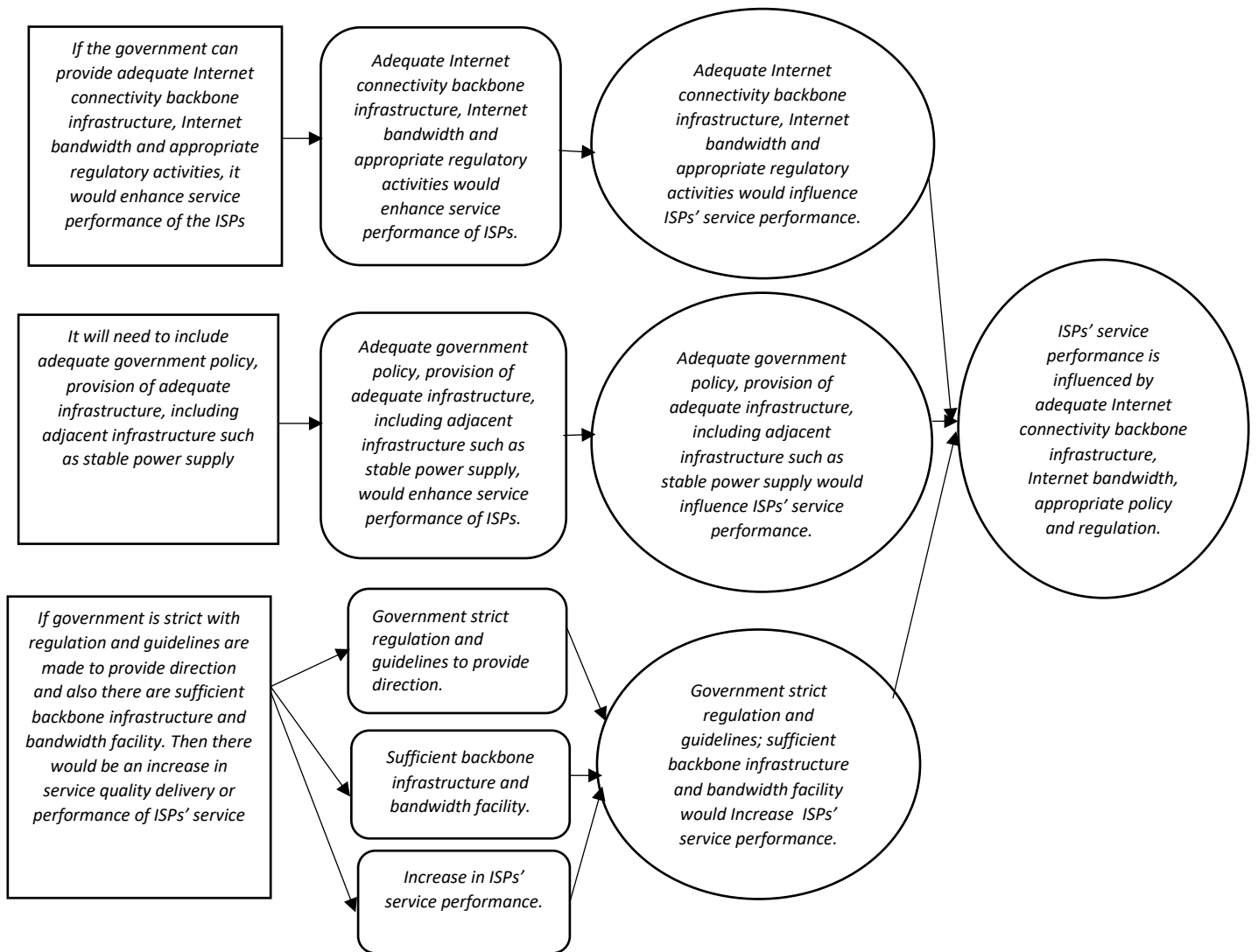


Figure 4 Thematic Map for the Analysis of the Focus Group Discussions Among Domestic/Individual Internet Service Subscribers on Factors that influence ISPs' Service Performance in FCT Abuja, Nigeria - Questions (Q5).

(b) ANALYSIS OF FOCUS GROUP DISCUSSIONS CONDUCTED AMONG INSTITUTION/BUSINESS INTERNET SERVICE SUBSCRIBERS

Table 6 display below the profile of all participants in the focus group discussions for institution/business Internet service subscribers.

Table 6: Institution Internet Subscribers (IIS) Participants Profile

Code	Background of respondent	Gender
IIS1-P1	IIS1-P1 is 32 years old, an employee of Automated Fingerprint Identification System (AFIS) Office, he is a fingerprint analyst working with the office for the past 8 years and has BSc degree. He has been using the internet for official activities for a period of 7 years and also for personal activities.	Male
IIS1-P2	IIS1-P2 is 34 years old, she is a Master's degree holder and has been with AFIS office for the past 11 years in the IT Unit of the	Female

Code	Background of respondent	Gender
	office. She has been using the internet for past 11 years both for personal and official activities.	
IIS2-P1	IIS2-P1 is 35 years old, she is a staff member of a banking institution for the past 9 years and in the marketing section of the bank. She is a BSc degree holder. She has been using the internet for both business and personal activities for past 9 years.	Female
IIS2-P2	IIS2-P2 is 38 years old, he is a staff member of a banking institution for the past 10 years and in the IT section of the bank. He is a BSc holder. He has been using the internet for both business and personal activities for past 10 years.	Male
IIS3-P1	IIS3-P1 is 37 years old, he works in a Government Security Agency in their ICT Department for the past 11 years. He is an HND holder. He has been using the internet for social and official activities for a period of 10 years.	Male
IIS3-P2	IIS3-P2 is 29 years old, a staff member of Government Security Agency for past 5 years. She is in the Finance and Administration Department of the Agency. She is a BSc degree holder. She has been using the internet service for both personal and official activities for a period of 5 years.	Female
IIS4-P1	IIS4-P1 is 40 years old, a Manager working with a travel agency for the past 12 years, a Master's degree holder who has been using the internet service for over 10 years for business and personal activities.	Female
IIS4-P2	IIS4-P2 is 32 years old; he is a travel agency employee for past 7 years. He is an HND holder and in marketing section of the agency. He has been using the internet for official and personal activities for a period of 7 years.	Male

Table 7 presents coding frame for the analysis of the focus groups' discussions among institution/business Internet service subscribers on patterns of Internet service uptake by customers in FCT Abuja, Nigeria (Questions Q1a – Q1f) with data extract, initial code, theme and main theme/category.

Table 7 Coding Frame for the Analysis of the Focus Groups' Discussions Among Institution/business Internet Service Subscribers on Patterns of Internet Service Uptake in FCT Abuja, Nigeria (Questions Q1a – Q1f).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
All	<i>Our organisations are conversant with the use of Internet services.</i>	Conversant with Internet services.	Conversant with Internet services.	Customers are conversant with Internet services.
<i>IIS2-P1, IIS2-P2, IIS3-P1, IIS3-P2, IIS4-P1 and IIS4-P2</i>	<i>Use the Internet services in our organisations for e-mail services</i>	Organisation use the Internet services for email services.	Organisation use the Internet services for email services.	Use Internet for institution/business purposes.

IIS2-P1, IIS2-P2, IIS4-P1 and IIS4-P2	<i>Our organisations use it for e-commerce such as online banking, general information search, bookings and reservations, e-trainings, file transfers and other activities that our organisations are involved in. Internet service serve as the hub for the functionalities of our institutions.</i>	Organisation use internet services for e-commerce (online banking), general information search, bookings and reservations, e-trainings, file transfers and other activities. Internet service serve as the hub for the functionalities of our institutions.	Use Internet service for organisation/ institution functions	Use Internet for institution/business purposes.
IIS1-P1, IIS1-P2, IIS2-P1 IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2	<i>Use the Internet for job related activities.</i>	Use Internet for job activities.	Use Internet for institution/business job activities.	Use Internet for institution/business purposes.
IIS1-P1, IIS1-P2, IIS3-P1, IIS3-P2, IIS4-P1	<i>Use Internet for literature searches and academic purposes.</i>	Use Internet for academic purposes.	Use Internet for academic purposes.	Use Internet for institution/business purposes.
IIS2-P1, IIS2-P2, IIS4-P1 and IIS4-P2	<i>Use the Internet for banking activities.</i>	Use Internet for banking.	Use Internet for banking.	Use Internet for institution/business purposes.
IIS3-P1, IIS3-P2 and IIS4-P1	<i>Use the Internet for leisure, sports and entertainment including reading of newspapers and download of materials and movies.</i>	Use Internet for leisure, sports and entertainment.	Use Internet for leisure, sports and entertainment.	Use Internet for institution/business purposes.
IIS1-P1, IIS1-P2, IIS3-P1, IIS3-P2	<i>Use the Internet for online academic purposes, Internet phoning and others.</i>	Use Internet for online academic and phoning purposes.	Use Internet for online academic and phoning purposes.	Use Internet for institution/business purposes.
All	<i>Is the medium through which our job is done more effectively and efficiently.</i>	Medium, which job is done effectively and efficiently.	Help to Improve service delivery.	Improved service delivery.
IIS3-P1 and IIS3-P2	<i>our work can be carried out manually but the output in terms of time of completion and accuracy is incomparable if the jobs were done with the Internet.</i>	Internet output in terms of time of completion and accuracy is improved.	Help to improve service delivery.	Improved service delivery.
All	<i>Our jobs basically had to deal with service provision through the Internet and this has made</i>	Jobs basically deal with service provision through Internet	Help to improve service delivery.	Improved service delivery.

	<i>using the Internet inevitable for them.</i>	The use of Internet is made inevitable.		
IIS2-P1 IIS2-P2, IIS4-P1 and IIS4-P2.	<i>We used the Internet services 24 hours every day because attending to customers lasts 24 hours and most times, they create access to customers and these customers sometimes require to be served at different times of the day.</i>	Use Internet services 24 hours to attend to customers Customers require to be served at different times of the day.	Use Internet frequently to improve service delivery.	Improved service delivery.
All	<i>In our organisations, though personnel may change at different times of the day, Internet service usage runs through all days including weekends.</i>	Internet service is used through all days including weekends.	Use Internet frequently to improve service delivery.	Improved service delivery.
IIS2-P1 IIS2-P2	<i>Customers access the bank's services at every hour of the day through various Internet platforms. It is necessary that it remains up and functional at every hour.</i>	Customers access the bank's services at every hour of the day through Internet. It is necessary that it remains functional at every hour.	Internet needed frequently to improve service delivery	Improved service delivery.
IIS4-P1 and IIS4-P2	<i>We do bookings and reservations for customers travelling to other countries, trying to make flight connections which involve different time zones and to achieve this, they cannot afford to be off the Internet.</i>	Do bookings and reservations for customer's flight and connections with different time zones the Internet at all time.	Internet needed frequently to improve service delivery	Improved service delivery.
IIS4-P1 and IIS4-P2	<i>In order to avoid service failure or interruption during transactions, we are subscribed to more than one Internet Service Providers (ISPs) so that when the Internet service from one ISP fails, they can immediately switch to another ISP.</i>	Customers subscribed to more than one ISPs to avoid service failure or interruption during transactions. Switch immediately to another ISP, when Internet service fails.	Network performance/Network quality is not satisfactory/good. No customer loyalty.	ISPs' service performance is not satisfactory/good.
All	<i>We access the Internet mostly through our laptops at the office and limited used of</i>	Access Internet through laptops and phones and desktops.	Use laptops and mobile phones and desktop Computers to access Internet.	Customers used mobile phones, laptop and desktop computers to access Internet services.

	<i>desktop. Use phones when at home except if the need to work is urgent at home, that is when laptops are used.</i>			
IIS2-P1 IIS2-P2 and IIS3-P2	<i>Usage of desktop is limited in the institutions; they are used in the banking sector and security agencies.</i>	Use of desktop is limited in institutions. Used in the banking sector and security agencies.	Use desktop Computers to access Internet.	
IIS1-P1, IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2	<i>I use phone most times to access the Internet when I am in transit for purposes such as social media, chats etc.</i>	Use phone most times to access the Internet.	Use phone to access the Internet services.	
		Use in transit for purposes such as social media, chats etc.		
IIS1-P1, IIS2-P2, IIS3-P1, IIS4-P1 and IIS4-P2	<i>The reason for low usage of desktops was power outage which is incessant especially when using public electricity; they asserted that it affects flow of work and also because it is impossible for them to take their desktops home and work from home, but that this solution is available with the laptops.</i>	Reason for low usage of desktops was power outage. Allows more use of laptops. Affects flow of work because of the inability to freely move desktops and work from home.	Inadequate power supply limits the use of desktop and allows more use of laptops. Hinders better service delivery.	Inadequate power supply infrastructure limits service delivery and Internet uptake.

Figures 5a, 5b and 5c present Thematic Maps for the analysis of the focus groups' discussions among institution/business Internet service subscribers on patterns of Internet uptake in FCT Abuja, Nigeria - (Questions Q1a – Q1f) with data extract, initial code, theme and main theme/category.

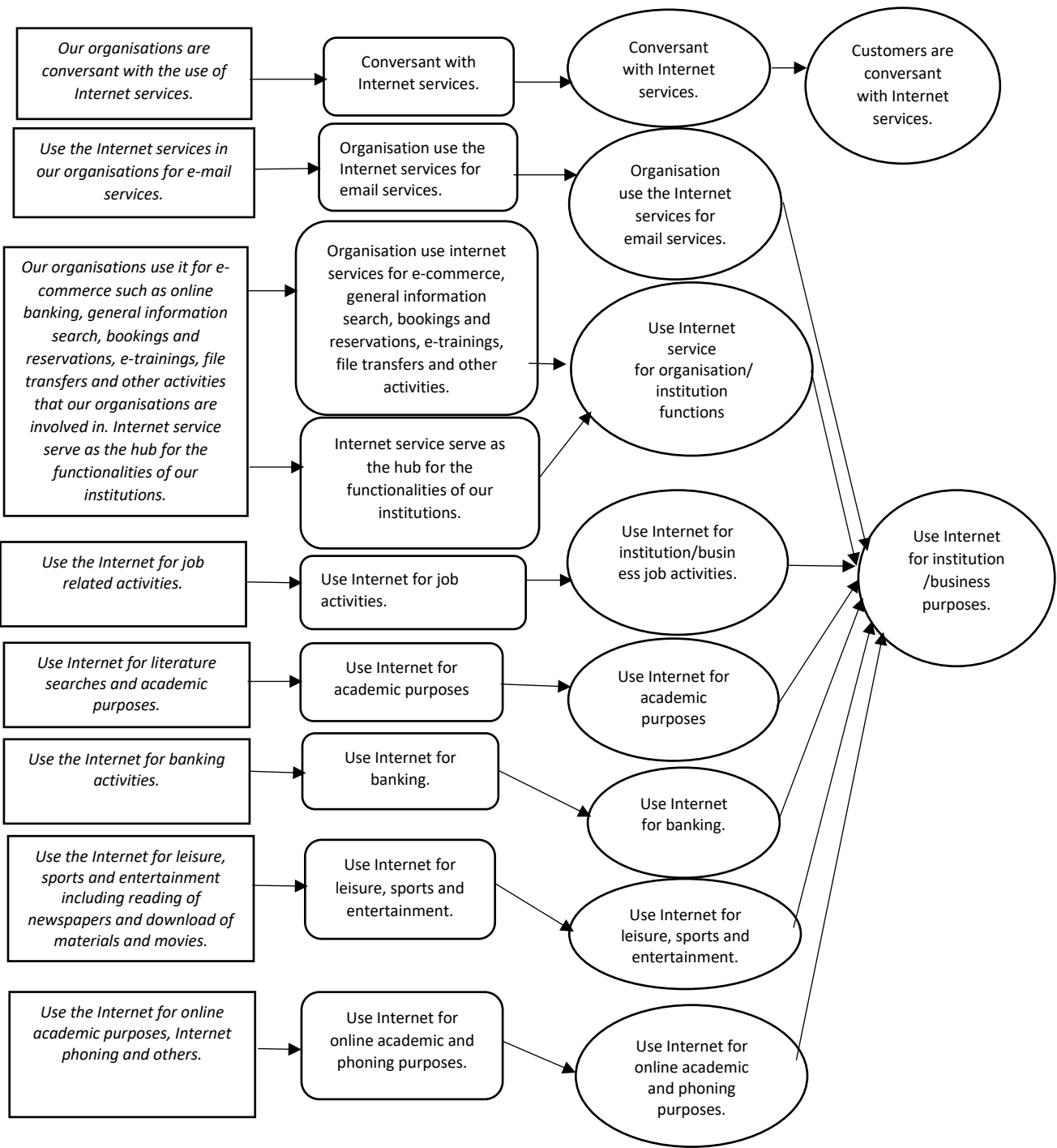


Figure 5a Thematic Map for the Analysis of the Focus Group Discussions Among Institution/business Internet Service Subscribers on Patterns of Internet Service Uptake in FCT Abuja, Nigeria - Questions Q1a – Q1f.

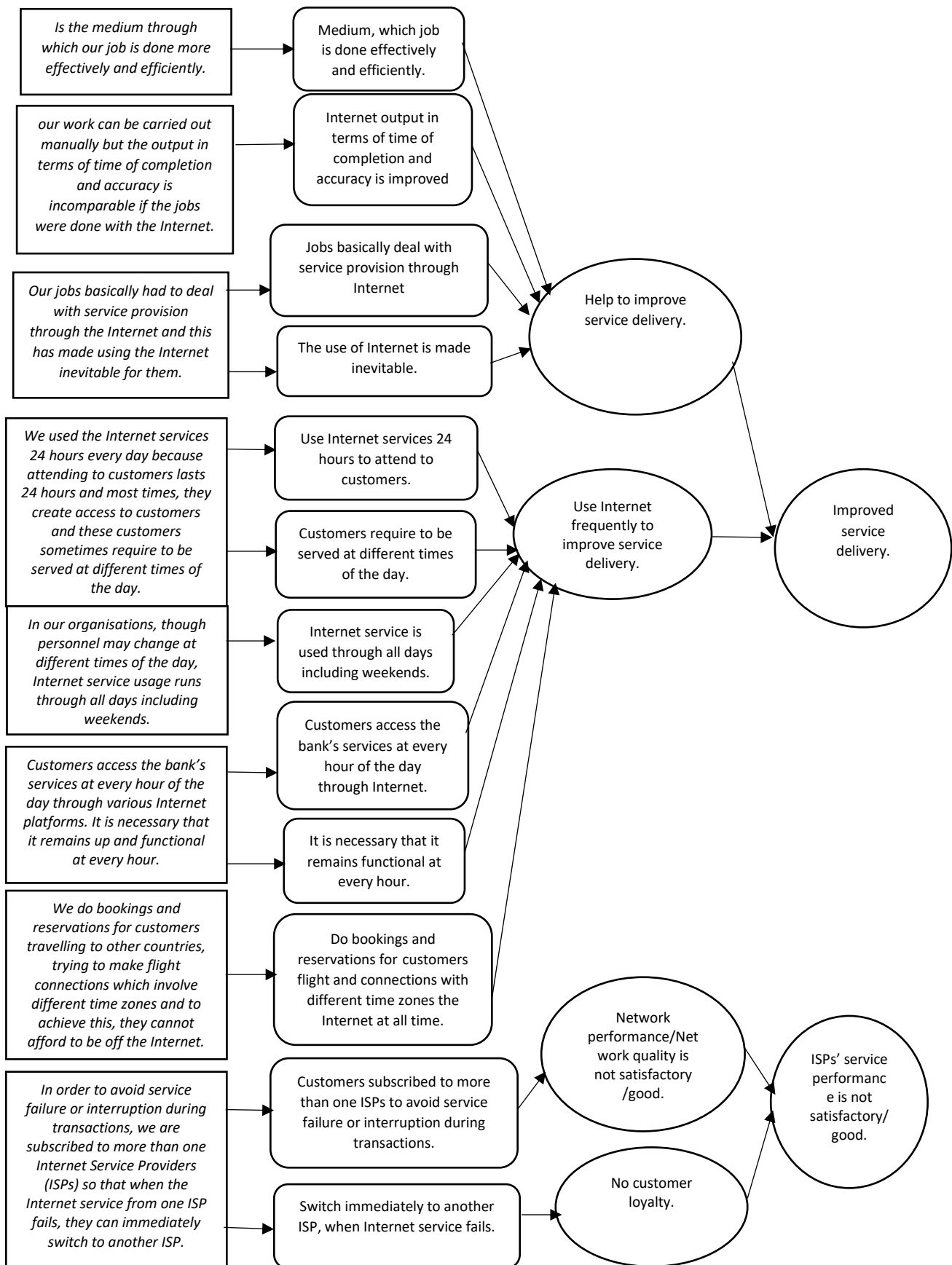


Figure 5b Thematic Map for the Analysis of the Focus Group Discussions Among Institution/business Internet Service Subscribers on Patterns of Internet Service Uptake in FCT Abuja, Nigeria - Questions Q1a – Q1f (Continued).

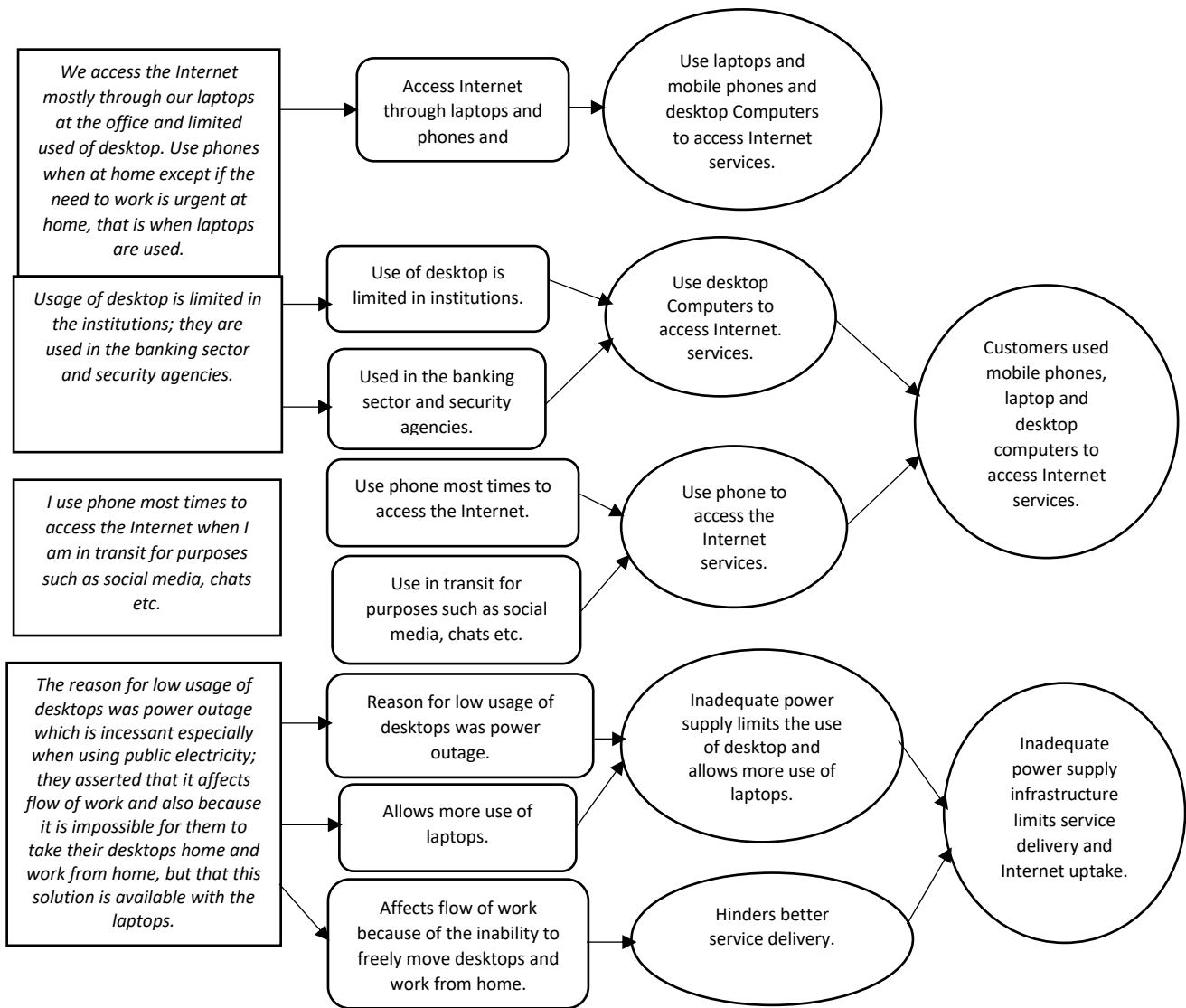


Figure 5c Thematic Map for the Analysis of the Focus Group Discussions Among Institution/business Internet Service Subscribers on Patterns of Internet Service Uptake in FCT Abuja, Nigeria - Questions Q1a – Q1f (Continued).

Table 8 presents coding frame for the analysis of the focus groups' discussions among institution/business Internet service subscribers on ISPs' service performance in FCT Abuja, Nigeria (Questions Q2, Q3, Q4 & Q5) with data extract, initial code, theme and main theme/category.

Table 8 Coding Frame for the Analysis of the Focus Groups' Discussions Among Institution/business Internet Service Subscribers on ISPs' Service Performance in FCT Abuja, Nigeria (Questions Q2, Q3, Q4, & Q5).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
IIS2-P2, IIS2-P2, IIS4-P1 and IIS4-P2	<i>The level of Internet connectivity including the speed and accessibility is of good quality</i>	Internet connectivity speed and accessibility is of good quality	Network Performance/Network Quality is good	ISPs' service performance is satisfactory/good.
IIS2-P2, IIS2-P2, IIS4-P1 and IIS4-P2	<i>We have a definite Service Level Agreement (SLA) with our ISPs, though there are service failures at intervals, these failures are not incessant compared to failures experienced using Internet modems or mobile devices by individual or domestic subscribers.</i>	Have a definite SLA with our ISPs. Though, there are service failures at intervals, service performance is better	SLA allows ISPs' service performance to be improved.	ISPs' service performance is satisfactory/good.
IIS1-P1, IIS1-P2, IIS3-P1, and IIS3-P2	<i>We disagreed totally that the Internet service is of good quality.</i>	Internet service is not of good quality.	ISPs' service performance is not satisfactory/good	ISPs' service performance is not satisfactory/good
All	<i>The cost of Internet services in Nigeria is expensive; though the service providers claim to have factored the running cost into the cost of Internet services, we (the customers) do not regularly get value for their money.</i>	Cost of Internet services is expensive; ISPs factored running cost to the cost of Internet services; Customers do not get value for their money.	Users' access cost is expensive and no value for money.	ISPs' service performance is not satisfactory/good
All	<i>Irrespective of the perceptions that are conceived toward Internet service delivery in the country or even though the ISPs fail to meet the expectations of customers, there is and there would still be the need to use Internet service</i>	Subscribers are compelled to use the Internet service even though; they are not satisfied with ISPs' service performance.	Customer are not satisfied with ISPs' service performance.	ISPs service performance is not satisfactory/good.

	<i>because most operations, services and activities of everyday life are presently being factored into Internet usage and the subscribers are compelled to use the services.</i>			
All	<i>The only thing that will happen is that customers will keep on changing from one ISP to another for better services.</i>	Customers change from one ISP to another for better services.	No customer loyalty	
All	<i>The identified obstructions to Internet service delivery in our institutions include power supply as the major problem, lack of infrastructural backbone and also, the inefficient regulatory activities by the regulatory agencies in the country. Government should endeavour to work on them for improved services.</i>	The identified obstructions include: power supply, lack of infrastructural backbone and inefficient regulatory activities. Government to work on them for improved services.	Limitations to Internet service delivery are: power supply; lack of infrastructural backbone; inefficient regulatory activities. Government to work on limitations for improved services.	Government to improved power supply, infrastructural backbone and regulatory activities.

Figure 6 presents Thematic Maps for the analysis of the focus groups' discussions among institution/business Internet service subscribers on ISPs' service performance in FCT Abuja, Nigeria - (Questions Q2, Q3, Q4, Q5) with data extract, initial code, theme and main theme/category.

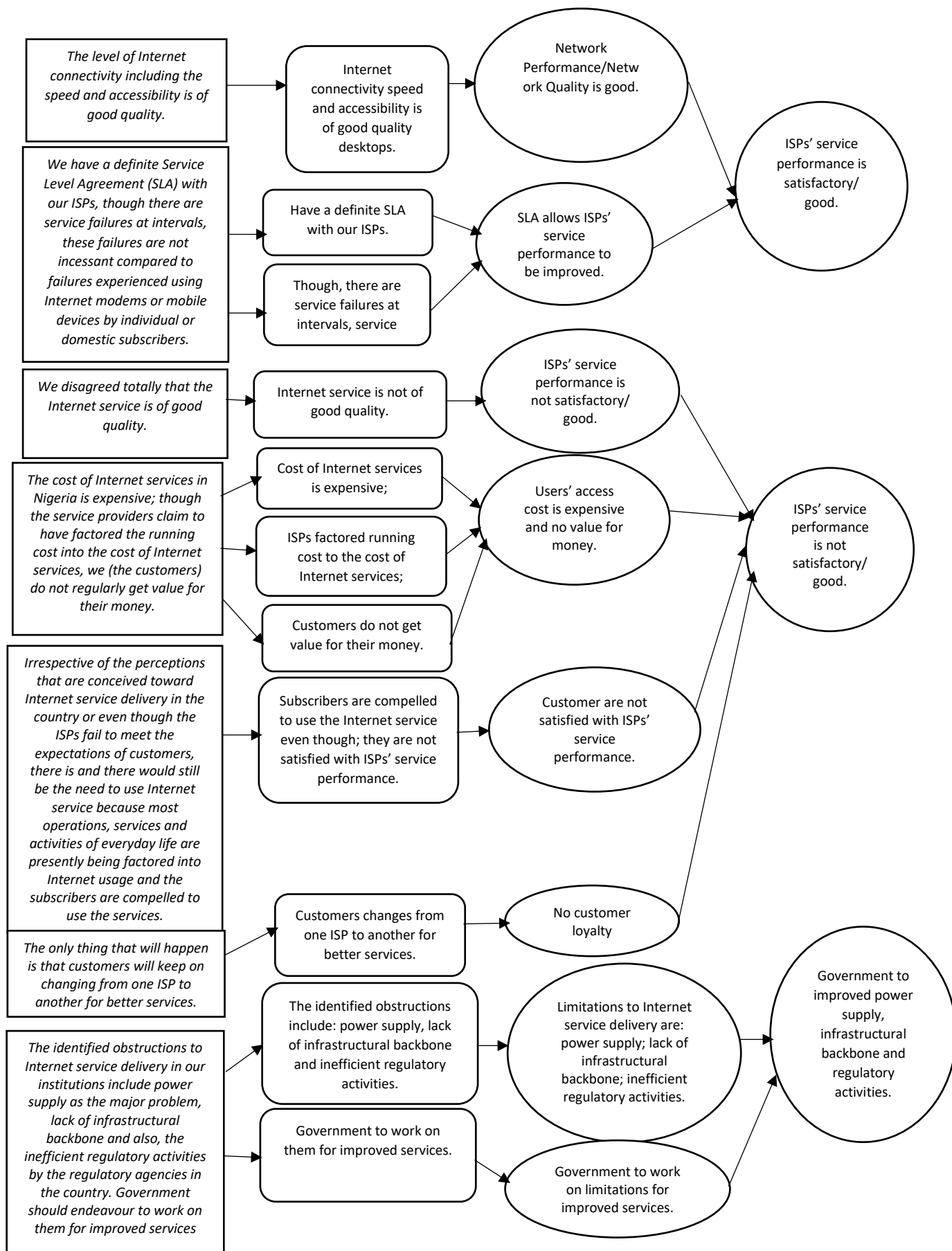


Figure 6 Thematic Map for the Analysis of the Focus Group Discussions Among Institution/business Internet Service Subscribers on ISPs' Service Performance in FCT Abuja, Nigeria - Questions Q2, Q3, Q4 & Q5.

(C) ANALYSIS OF FOCUS GROUP DISCUSSIONS CONDUCTED AMONG INTERNET SERVICE PROVIDERS (ISPs)

Table 9 displays the profile of all participants in the focus group discussions for ISPs.

Table 9: Internet Service Provider (ISP) Participant Profiles

Code	Background of respondent	Gender
ISP1-P1	ISP1-P1 is 34 years old, an employee of ISP1 for past 6 years, a BSc degree holder. He has been working in customer care service unit of the ISP1.	Male
ISP1-P2	ISP1-P2 is 35 old, she is an HND holder and has been with ISP1 for past 8 years in the Technical Unit.	Female
ISP2-P1	ISP2-P1 is 32 years old, she is a staff member of ISP2 for the past 7 years and in the marketing section. She is a BSc degree holder.	Female
ISP2-P2	ISP2-P2 is 37 years old, he is a staff member of ISP2 for the past 10 years and in the Technical section. He is a B Eng. degree holder.	Male
ISP3-P1	ISP3-P1 is 40 years old, he works with ISP3 for the past 11 years in its Technical Department. He is an HND holder.	Male
ISP3-P2	ISP3-P2 is 28 years old, a staff member of ISP3 for past 5 years. She is in the customer care service unit. She is a BSc degree holder.	Female
ISP4-P1	ISP4-P1 is 42 years old, a Manager heading marketing unit of ISP4. She has been with ISP4 for the past 11 years, a Master's degree holder.	Female
ISP4-P2	ISP4-P2 is 36 years old; he is in the Technical services unit. He has been with ISP4 for past 8 years. He is a B.Eng. degree holder.	Male

Table 10 presents coding frame for the analysis of the focus groups' discussions among ISPs on pattern of Internet service uptake and ISPs' service performance in FCT Abuja, Nigeria (Questions Q1, Q2, Q3, Q4 & Q5) with data extract, initial code, theme and main theme/category.

Table 10 Coding Frame for the Analysis of the Focus Groups' Discussions Among ISPs on Patterns of Internet Service Uptake and ISPs' Service Performance in FCT Abuja, Nigeria (Questions Q1, Q2, Q3, Q4, & Q5).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
All	<i>The pattern of uptake of Internet services is changing in the FCT, Abuja and the country as a whole.</i>	Pattern of Internet service uptake is changing.	Pattern of Internet service uptake is not stable.	Pattern of Internet uptake is unstable.

ISP1-P1 and ISP1-P2	<i>There is an increase in demand for bandwidth capacity from customers and the increase in bandwidth capacity comes at an increased cost.</i>	Increase in demand for bandwidth capacity from customers. Increase in bandwidth capacity comes at an increased cost.	Increase in bandwidth capacity affects cost.	Increase in bandwidth capacity influences cost.
ISP1-P1	<i>The challenge in Nigeria is matching expectation with finance but the more the quality the more one pays because quality is a function of cost.</i>	There is challenge in matching expectation with finance. More the quality, the more one pays. Quality is a function of cost.	Increase in quality affects cost.	Increase in quality influences cost.
All	<i>Competition and influx of new service providers into the market has led to an increase in service quality delivery and ISPs' service performance has improved because we the ISPs have to meet up with the top market requirement if we still want to be in the market and keep the patronage of existing and new customers.</i>	Competition has led to increase in service quality delivery and improved ISPs' service performance. ISPs have to meet up keep the patronage of existing and new customers.	Competition improved ISPs' service performance, which affects patronage.	ISPs' service performance is influenced by competition which affects patronage.
All	<i>Obstruction to Internet services has been observed to be as a result of inadequate coverage, bandwidth capacity issues and limited network connectivity due to the location where customers reside. There is more Internet network coverage in the urban areas than in rural communities due to the problem of backbone infrastructure and bandwidth capacity issues.</i>	Limitations to Internet services are inadequate coverage, bandwidth capacity and network connectivity issues. More Internet network coverage in the urban areas than in rural communities due to problem of backbone infrastructure and bandwidth capacity.	Limitations to Internet services are inadequate coverage/network connectivity, bandwidth and backbone infrastructure issues.	ISPs' service performance is influenced by network connectivity, bandwidth and backbone infrastructure issues.
ISP1-P1 and ISP1-P2.	<i>We are on the verge of running fibre cables across the country to improve network</i>	Running fibre cables to improve network connectivity and coverage.	Provision of fibre to improve network performance/network quality.	ISPs' service performance is influenced by adequate backbone infrastructure.

	<i>connectivity and coverage.</i>			
All	<i>Lack of adequate bandwidth has been identified to be the cause of access connectivity problem and in cases where they have better bandwidth, service is always good.</i>	Lack of adequate bandwidth causes access connectivity problem. Better bandwidth results to good service.	Inadequate bandwidth makes network performance /network quality not satisfactory. Better Bandwidth makes service satisfactory /good.	ISPs' service performance is influenced by bandwidth capacity.
ISP1-P1 and ISP1-P2.	<i>Nonetheless, there are frequent downtimes which arose as a result of various factors such as not using the required bandwidth capacity for the service needed.</i>	Frequent downtimes due to not using the required bandwidth capacity for the service needed.	Network performance /network quality is affected by bandwidth capacity.	ISPs' service performance is influenced by bandwidth capacity.
ISP1-P1, ISP1-P2, ISP1-P1 and ISP1-P2.	<i>Most institutional subscribers overcrowd their network, which seems to be a major problem because most institutions pay for less bandwidth such as 512Kbs, which would eventually be used by almost 500 people. This will exceed the bandwidth capacity and end up being less efficient than desired.</i>	Most institutional subscribers overcrowd their network with less bandwidth. Bandwidth capacity is exceeded, which result to less efficiency.	Network performance /network quality is affected by bandwidth capacity.	ISPs' service performance is influenced by bandwidth capacity.
ISP1-P1 and ISP1-P2.	<i>Sometimes realising the complaints and problems encountered, we provide 2 weeks' higher quality services (i.e., higher bandwidth capacity without extra cost) than what the customers paid for. More than 95 percent acknowledge to be excellent and are needed by their organisations but when the cost implication is mentioned to them, only about 3 percent end up purchasing and using these</i>	Provision higher quality services (i.e., higher bandwidth capacity) result to excellent service. Organisations were hindered by the high cost to obtain the appropriate bandwidth for enhanced and efficient services.	Network Performance /network quality is enhanced by improved bandwidth capacity. Network Performance /network quality is limited by the cost of bandwidth.	ISPs' service performance is influenced by bandwidth capacity.

	<i>enhanced and efficient services.</i>			
ISP2–P1, ISP2–P2, ISP3–P1, ISP3–P2, ISP4–P1 and ISP4–P2.	<i>The cost of providing backbone infrastructure is high and the costs of maintenance and servicing of equipment are very expensive too. The destruction of equipment by vandals also contributed to the reduced quality of service.</i>	Cost of providing backbone infrastructure, maintenance and servicing of equipment is high. The destruction of equipment reduced quality of service.	Limitations to network performance/network quality are high cost of backbone infrastructure, maintenance and destruction of equipment.	ISPs' service performance is influenced by high cost of backbone infrastructure, maintenance and destruction of equipment.
ISP2–P1, ISP2–P2, ISP3–P1 and ISP3–P2.	<i>Absence of framework, that is ICT Policy, was another identified obstruction as this make adequate monitoring and regulation impossible. This limits Internet service performance.</i>	Absence of Policy make adequate monitoring and regulation impossible. Limits Internet service performance.	Lack of Policy limits Internet service performance.	ISPs' service performance is influenced by lack of policy.
ISP4–P1 and ISP4–P2	<i>There are adequate ICT frameworks and policies in existence, but that the major problem has been implementation by the policy and regulatory agencies which was stated to be as a result of the overlapping of functions by the policy and regulatory agencies.</i>	There are adequate ICT frameworks and policies in existence. Major problem is implementation due overlapping of regulatory agencies' functions.	Adequate policies but no implementation due overlapping of regulatory agencies' functions.	Adequate policies but no implementation.
ISP1–P1 and ISP1–P2	<i>Problems are always identified and rectified in about 5 minutes especially when it is fibre optic. We have an advanced monitoring and fault detection system, although the service would be slower, it would automatically switch from fibre to VSAT. When other minor faults are reported to the contact centre, response is immediate and resolution is</i>	Problems are always identified and rectified immediately Advanced monitoring and fault detection system to resolve faults.	Prompt to detect and resolve faults.	Customer care service & technical support is good.

	<i>provided in maximum of 4 hours for people in Abuja.</i>			
ISP1-P2	<i>Before now, we depend on the report of customers' problems as provided by those we outsourced to handle customer care service as we do not have direct link with the customers. But now we do it in-house as we have service managers who go see the customers and personally interview them on their perceptions of the service. There are the technical team that look into the perceptions of the customers as reported by the service managers. We also have the business team that interface with our top management in making wise business decision based on feedbacks received from customers and the management team that manages the affairs of the organisation.</i>	Customer care service is previously outsourced. Customer care service is presently in-house with technical and business teams that consider the customers' perceptions and make wise business decision.	Customer care service with technical and business teams to consider customers' perception for good services.	Customer care service with technical and business teams to provide good services.
ISP1-P1, ISP2-P1, ISP3-P2, ISP4-P1	<i>There exist gaps but that these gaps have been closed to a considerable extent compared to how it was 3-5 years ago.</i>	There exist gaps but closed to a considerable extent.	Gaps exist but closed to a considerable extent.	Gaps exist but closed to a considerable extent.
All	<i>Government to invest on Internet backbone infrastructure; streamline infrastructure for other providers to become sole investors under government.</i>	Government to invest on Internet backbone infrastructure. Streamline for other providers to become sole investors.	Government to invest on Internet backbone infrastructure and make other providers to become sole investors.	Government to invest on Internet backbone infrastructure along with others as sole investors.
All	<i>Government to pass policy or ICT laws that guides private investments for</i>	Government to pass policy that guides private investments even	Government to provide ICT policy that protects private investments and	Government to provide ICT policy that protects and

	<i>investors to know that even in change of government or regime, investment in ICT in Nigeria would not be lost. When there is a National Policy and not the government of the day policy it encourages investor to make great commitment to business.</i>	in change of regime, investment in ICT is not lost. Provision of National ICT Policy would encourage investor to make great business commitment.	encourages investor to make great business commitment.	encourages private investments.
All	<i>Government should centralise the ICT infrastructure in Nigeria, which was the reason why an organisation known as Galaxy was formed, but there was no policy framework on the ground for adequate implementation.</i>	Government to centralise ICT infrastructure and provide policy framework for adequate implementation.	Government to provide central ICT infrastructure and policy framework for adequate implementation.	Government to provide central ICT infrastructure and policy for implementation.
All	<i>Improving quality of services will always attract costs that would invariably be redirected to subscribers for payment. However, improving Internet service quality drives adoption and Internet service growth because if the customers believe that the service quality is good, they inform other people, which drives further adoption and increases growth.</i>	Improving quality of services will always attract cost that is redirected to subscribers for payment. Improved Internet service quality drives adoption and growth.	Improving quality of services attract more cost for subscribers and drives adoption and growth.	Improved ISPs' service performance attract cost and drives adoption and growth.

Figures 7a, 7b, 7c and 7d present Thematic Maps for the analysis of the focus groups' discussions among ISPs on pattern of Internet service uptake and ISPs' service performance in FCT Abuja, Nigeria (Questions Q1, Q2, Q3, Q4 & Q5) with data extract, initial code, theme and main theme/category.

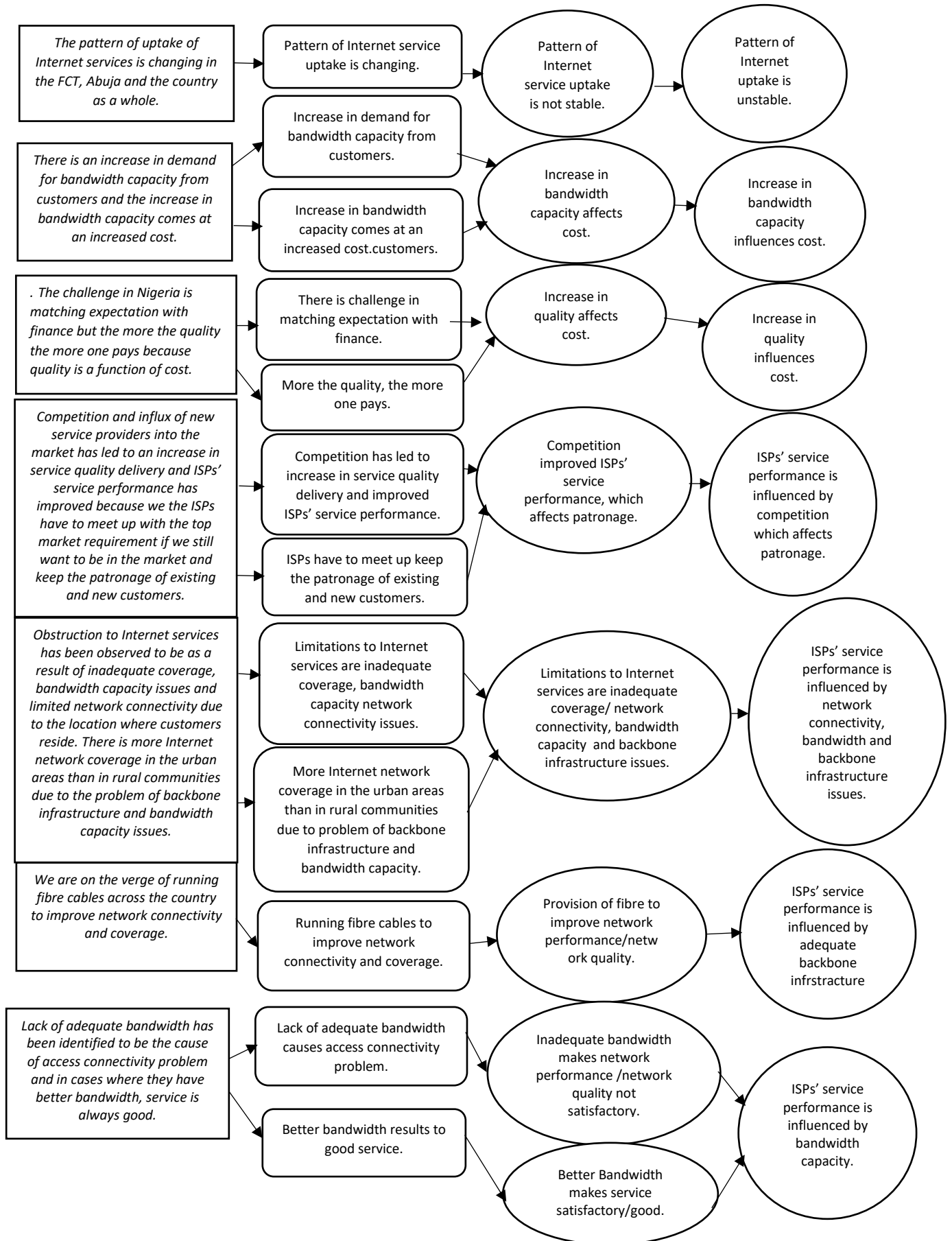


Figure 7a Thematic Map for the Analysis of the Focus Group Discussions Among ISPs on Patterns of Internet Service Uptake and ISPs' Service Performance in FCT Abuja, Nigeria – Questions Q1, Q2, Q3, Q4 & Q5

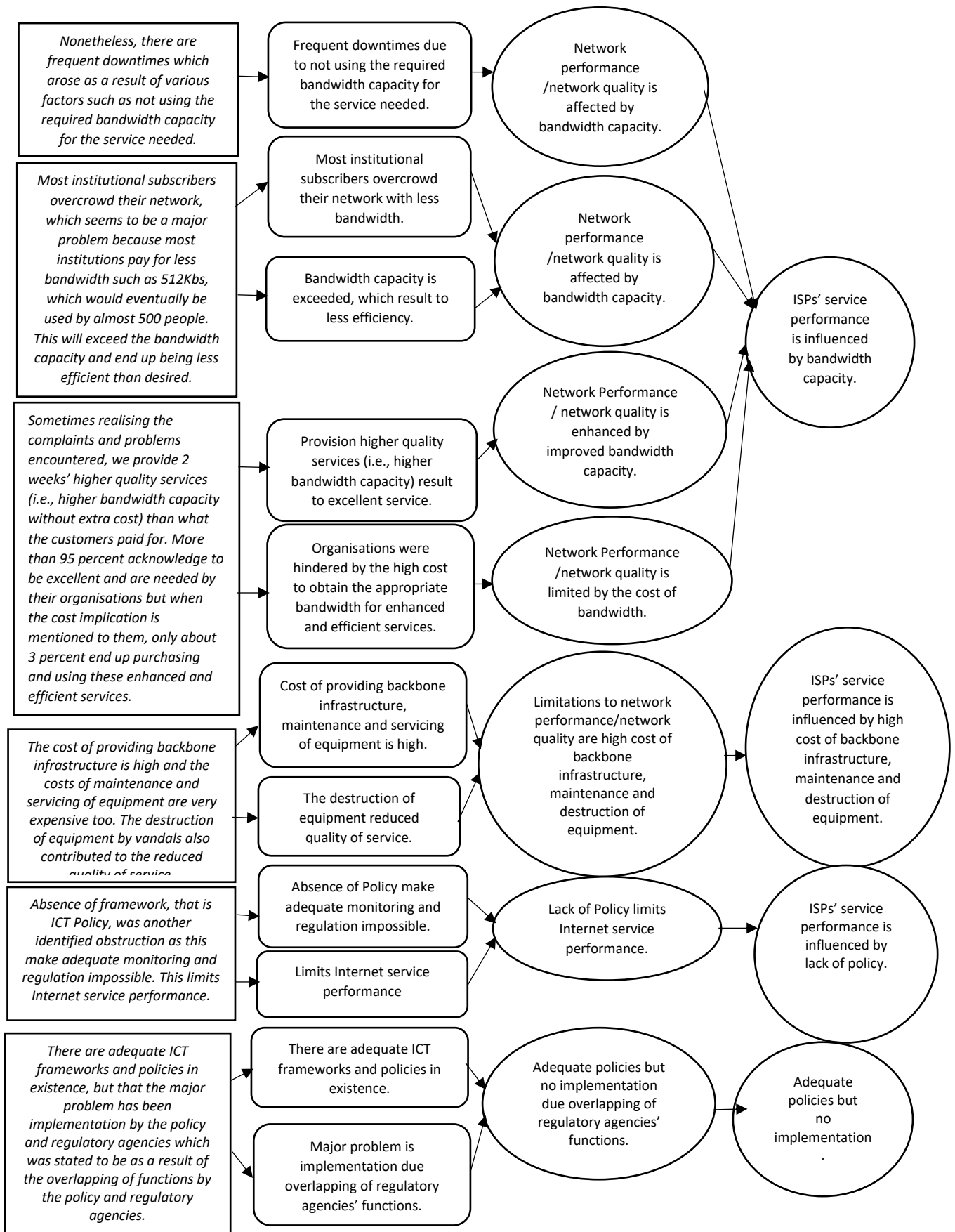


Figure 7b Thematic Map for the Analysis of the Focus Group Discussions Among ISPs on Patterns of Internet Service Uptake and ISPs' Service Performance in FCT Abuja, Nigeria - Questions Q1, Q2, Q3, Q4 & Q5 (Continued)

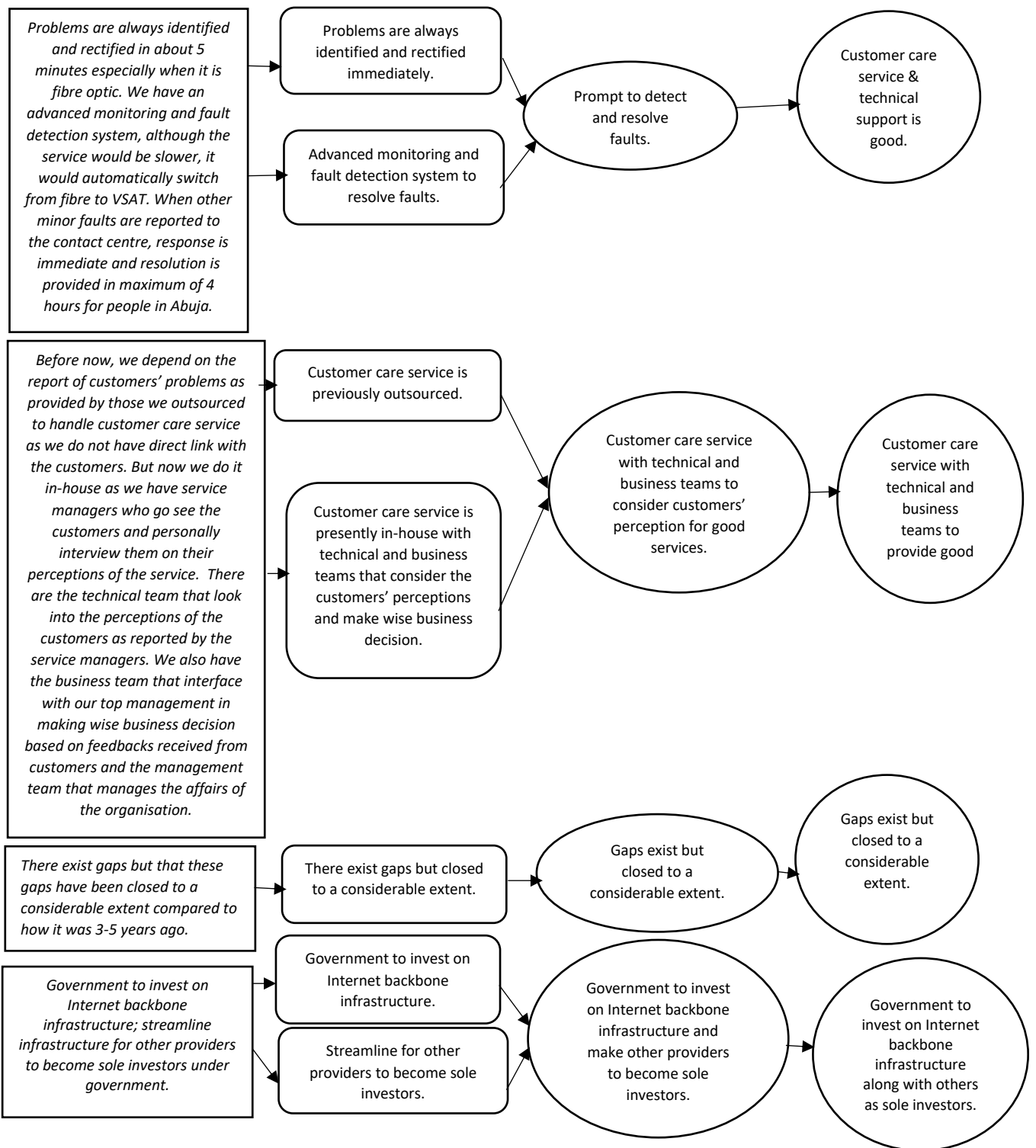


Figure 7c Thematic Map for the Analysis of the Focus Group Discussions Among ISPs on Patterns of Internet Service Uptake and ISPs' Service Performance in FCT Abuja, Nigeria - Questions Q1, Q2, Q3, Q4 & Q5 (Continued)

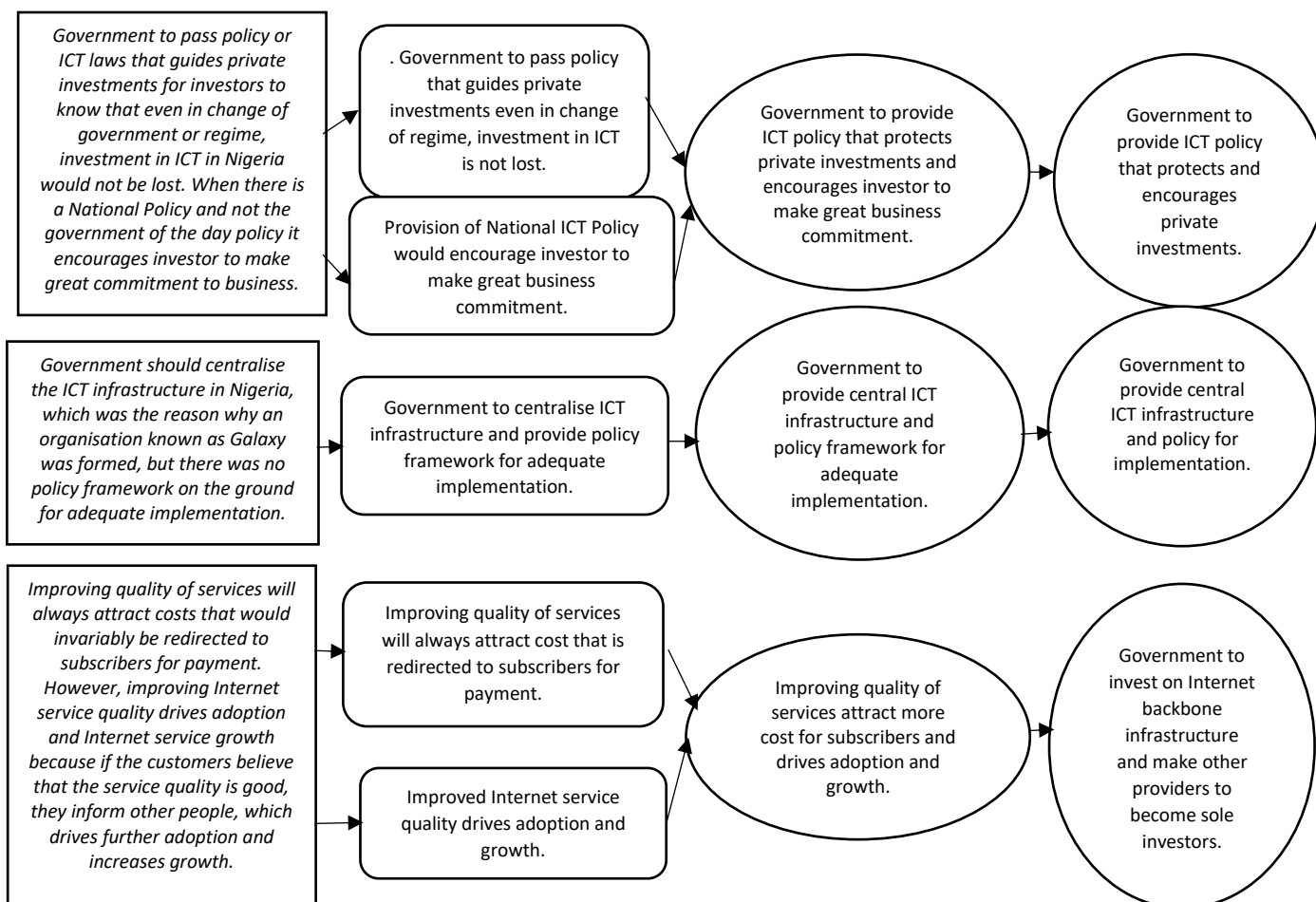


Figure 7d Thematic Map for the Analysis of the Focus Group Discussions Among ISPs on Patterns of Internet Service Uptake and ISPs' Service Performance in FCT Abuja, Nigeria - Questions Q1, Q2, Q3, Q4 & Q5 (Continued).

(d) ANALYSIS OF FOCUS GROUP DISCUSSIONS CONDUCTED AMONG POLICY AND REGULATORY AGENCIES

Table 11 display the coding of all participants in the focus group discussions for Policy and Regulatory Agencies.

Table 11: Policy and Regulatory Agencies (Policy Agency – PA; Regulatory Agency - RA) Participant Profiles

Code	Background of respondent	Gender
PA1	PA1 is 45 years old, he is an IT Policy Agency employee for past 10 years, a BSc degree holder. He is in the Human Resources Department of the Agency. He has been using the internet for personal and official activities for a period of 9 years.	Male
PA2	PA2 is 47 years old, he is a PhD degree holder and has been with the Agency for the past 12 years. He is in Standards, Guidelines and Frameworks Department of the Agency. He has been using the internet for the past 10 years for personal and official activities.	Male
PA3	PA3 is 40 years old, she has been working with the Agency for	Female

	the past 8 years. She is in the Cybersecurity Department of the Agency. She is a BSc degree holder. She has been using the internet for both business and personal activities for a period of 10 years.	
PA4	PA4 is 35 years old, works in Corporate Planning and Strategy Department, and has been with the Agency for the past 6 years. He is a BSc degree holder. He has been using the internet for a period of 8 years, chiefly for personal and business activities.	Male
PA5	PA5 is 38 years old, he works in e-Government Development and Regulatory Department. He is a BSc degree holder and has been with the Agency for the past 8 years. He has been using the internet for official and social activities for a period of 10 years.	Male
PA6	PA6 is 41 years old, works in IT Infrastructure Solutions Department, and has been with the Agency for the past 10 years. She is a BSc degree holder. She has been using the internet for a period of 10 years chiefly for personal and business activities.	Female
RA1	RA1 is 42 years old, she is a Regulatory Agency employee for the past 13 years, a Master degree holder. She is in the IT unit of the agency. She has been using the internet for official and personal activities for the past 14 years.	Female
RA2	RA2 is 45 years old, he is a Master degree holder and has been with the Agency the past 15 years. He is in the Technical Standards and Network Integrity Department of the Agency. He has been using the internet for the past 14 years for personal and official activities.	Male
RA3	RA3 is 38 years old, she has been working with the Agency for the past 10 years. She is in the Legal and Regulatory Services Department of the Agency. She is a Bachelor degree holder. She has been using the internet for both official and personal activities for a period of 10 years.	Female
RA4	RA4 is 37 years old, works in Spectrum Administration Department, and has been with the Agency for the past 8 years. He is a BSc degree holder. He has been using the internet for a period of 8 years chiefly for personal and official activities.	Male
RA5	RA5 is 39 years old, he works in Consumer Affairs Bureau of the Agency. He is a BSc degree holder and has been with the Agency for the past 9 years. He has been using the internet for official and social activities for a period of 10 years.	Male
RA6	PA6 is 43 years old, works in Licensing and Authorization, Compliance and Monitoring Department, and has been with the Agency for the past 12 years. She is a BSc degree holder. She has been using the internet for a period of 10 years chiefly for personal and official activities.	Female

Table 12 presents coding frame for the analysis of the focus groups' discussions among Policy and Regulatory Agencies on Internet service delivery in FCT Abuja, Nigeria

(Questions Q1, Q2, Q3, Q4 & Q5) with data extract, initial code, theme and main theme/category.

Table 12 Coding Frame for the Analysis of the Focus Groups' Discussions Among Policy and Regulatory Agencies on Internet Service Delivery in FCT Abuja, Nigeria (Questions Q1, Q2, Q3, Q4, & Q5).

Coding Frame

Participant	Data extract	Initial code	Theme	Main theme/Category
PA1, PA2, PA3, PA4 PA5 and PA6	<i>There is no specific policy applicable to Internet as a whole in Nigeria but there exists an IT policy that covers the usage of IT services in the country which has Internet service usage included (Participant PA1).</i>	There is no specific policy for Internet service. There exists IT policy that covers the usage of IT services that includes Internet services.	There exists IT policy for IT services that includes Internet services.	There exists IT policy that includes Internet services.
RA1, RA2, RA3, RA4, RA5 and RA6	<i>We have guidelines that service providers follow and that there are also Key Performance Indicators (KPIs) for voice, data or Internet services. we usually send to the ISPs the report of their service performances monthly.</i>	There are guidelines for service providers. There are Key Performance Indicators (KPIs) for report of ISPs' service performances monthly.	There are guidelines and KPIs for Internet services that provide report for ISPs' service performances monthly.	There are guidelines and KPIs for monthly ISPs' service performance report.
RA3	<i>Internet services can be looked at as a service and as an infrastructure because the service rendered is based on the available infrastructure (Participant RA3).</i>	Internet can be looked at as a service. Internet can be seen as a service based on infrastructure.	Internet is seen as a service based on infrastructure.	Internet is seen as a service based on infrastructure.
RA4	<i>There may not have been a policy related directly to Internet service but policy and regulatory agencies are trying to create an environment for the service providers to serve the customers better and to enhance further penetration of Internet as well as facilitate the use of</i>	Policy and regulatory agencies create an environment for the service providers to serve the ISPs' customers better.	Policy and regulatory agencies create an enabling environment for ISPs to provide better services.	Policy and regulatory agencies create an enabling environment to improve ISPs' service performance.

	<i>Internet among the populace (Participant RA4).</i>			
RA2, RA4 RA5 and RA6	<i>When services are available and adequate, then the people becoming aware of the benefits of the Internet would facilitate patronage for the service providers (Participant RA6)</i>	Available and adequate Internet services would facilitate patronage for the service providers.	Improved ISPs' services performance would facilitate customers' patronage.	Improved ISPs' service performance would facilitate patronage.
PA2	<i>The drive to increase on Internet growth is as a result of people who are adapting to usage of the Internet and its services, as attention is now drawn on the trending services and applications such as Internet banking, social media, online registrations and payments etc. The people are now shifting to conform to these trends and this has increased awareness and uptake. Particularly, the remarkable increase in social media has increased Internet growth even in rural areas which has increased Internet acceptability and growth.</i>	Increase on Internet growth is as a result of people who are adapting to usage of the Internet and its services. There are trending services and applications that has increased Internet acceptability and growth.	Trending services and applications on the Internet has increased its acceptability and growth.	Trending services and applications on the Internet influence Internet acceptability and growth.
RA2	<i>We understand and are aware that the quality of services provided differ by price and that we measure satisfaction based on Service Level Agreement between service providers and customers. But being as it is, we feel that services provided by the ISPs are fairly commensurate with the prices paid by customers although</i>	Quality of services provided differ by price and measure satisfaction based on Service Level Agreement between service providers and customers. ISPs services are fairly commensurate with the prices paid by customers although there are various downtimes.	Quality of services is influenced by price and satisfaction is based on Service Level Agreement. ISPs' services are fairly commensurate with the prices paid by customers.	Quality of services are influenced by price and they are fairly commensurate to what is paid by customers.

	<i>we are aware of various downtimes by the ISPs.</i>			
RA1	<i>I think that service satisfaction is relative to the operator a customer is connected to, because some operators perform better than others but services provided are still expensive generally and cannot really perform the required tasks (Participant RA1).</i>	Service satisfaction is relative to the operator a customer is connected to as some ISPs perform better than others. Services are expensive generally and do not perform the required tasks.	Customer satisfaction is relative to the ISP a customer is connected as service performance differs. Services are expensive and do not meet expectation.	Customer satisfaction is relative to the ISP's service performance, which are expensive and do not meet expectation.
RA5	<i>Following the reports received from customers, I think customers do not get quality for money and also because some factors such as location and the particular ISP subscribed to, play a big role in the level of quality service received (Participant RA5).</i>	Customers do not get quality for money due to some factors such as location and the relative ISPs' service performance.	Customers do not get value for money due to factors such as location and relative ISPs' service performance.	Customers do not get value for money due location and relative ISPs' service performance.
All	<i>The outburst in telecom industry was overwhelming and we weren't ready for it and the growth was sudden so there was no enabling environment but I think we are trying to put things in place though it would take some time but we would get there (Participant RA2).</i>	Telecom industry outburst is overwhelming and the growth is sudden. There was no enabling environment.	Telecom industry growth is overwhelming and sudden, and no enabling environment.	Telecom growth is overwhelming and sudden, and no enabling environment.
RA2, RA3, RA4 and RA6.	<i>Lack of adequate infrastructure and if these were in place, cost of providing services would reduce, and more people would have access to Internet and network quality would also improve.</i>	If adequate infrastructure were in place, cost of services would reduce. More people would have access to Internet and network quality would improve.	If adequate infrastructure e is in place, cost of services would reduce, more people will access good Internet network quality.	Adequate infrastructure will reduce cost of services and more people will access good Internet network quality.

RA5 and RA6	<i>Security was also said to affect quality because sometimes the infrastructure is vandalised in communities.</i>	Security affects quality because sometimes the infrastructure is vandalised.	Security affects quality as infrastructure are vandalised.	Security affects quality as infrastructure are vandalised.
RA2, RA3 and RA4	<i>Power was also itemised as another major factor, while multiple taxations and regulations were said to be another big challenge which limits entry and penetration of the Internet to the rural communities and remote areas.</i>	<i>Power, multiple taxations and regulations are challenges which limit entry and penetration of the Internet to the rural communities.</i>	Power, multiple taxations and regulations limit penetration of Internet to rural communities.	Power, multiple taxations and regulations limit penetration of Internet.
RA2	<i>Poor planning on the part of the government should also be considered because sometimes roads are built across fibre cables and in most of such cases, the cables are damaged and most times affect network quality (Participant RA2).</i>	Poor government planning such as roads built across fibre cables and in most cases, the cables are damaged and affect network quality.	Poor government planning such as roads built across fibre cable damaged it and affect network quality.	Poor government planning as roads built on fibre cable damaged it and affect network quality.
RA2, RA3, RA4 and RA5	<i>There should be indigenisation of the ISPs so that indigenous companies are given licences to operate. Government should provide enabling environment which the ISPs currently do not have.</i>	Indigenous companies be given licences to operate. Government to provide enabling environment for the ISPs to operate.	Government to provide Indigenous ISP companies with licences to operate in an enabling environment.	Government to provide Indigenous ISP companies with licences to operate in an enabling environment.
RA2, RA3, RA4 and RA5	<i>There should be unified regulatory agency to help direct ISPs to achieve their goal i.e., quality Internet service delivery. This should not be left for the ISPs only to achieve as they may be more interested in making huge profits than providing better quality services. So, the regulatory agency should take the lead in ensuring that the ISPs work</i>	There should be unified regulatory agency to help direct quality of ISPs service delivery. Quality service should not to be left for only ISPs to achieved but regulator should take the lead as ISP may show more interest in huge profits than providing better quality services.	There should be unified regulatory agency to help direct quality of ISPs service delivery for improved ISPs' service performance.	There should be unified regulatory agency to direct ISPs service delivery for improved ISPs' service performance.

	<i>toward achieving this goal by making them comply with the sharing of resources and infrastructure strategy that would enhance coverage across the country.</i>			
RA2, RA3, RA4 and RA5	<i>Indigenisation of the ISPs would lead to acceptability and ownership of resources which might also assist in stopping vandalism of equipment as the people would see that destroying such infrastructure would also have an adverse effect on them.</i>	Indigenisation of the ISPs would lead to acceptability and ownership of resources which will assist to stop vandalism of equipment as the people would see that destroying such infrastructure will have an adverse effect.	ISPs' indigenisation allows acceptability and ownership of resources, and assists to stop vandalism of equipment.	ISPs' indigenisation allows acceptability and ownership of resources, and assist to stop vandalism of equipment.

Figures 8a, 8b and 68c present Thematic Maps for the analysis of the focus groups' discussions among Policy and Regulatory Agencies on Internet Service Delivery in FCT Abuja, Nigeria (Questions Q1, Q2, Q3, Q4 & Q5) with data extract, initial code, theme and main theme/category.

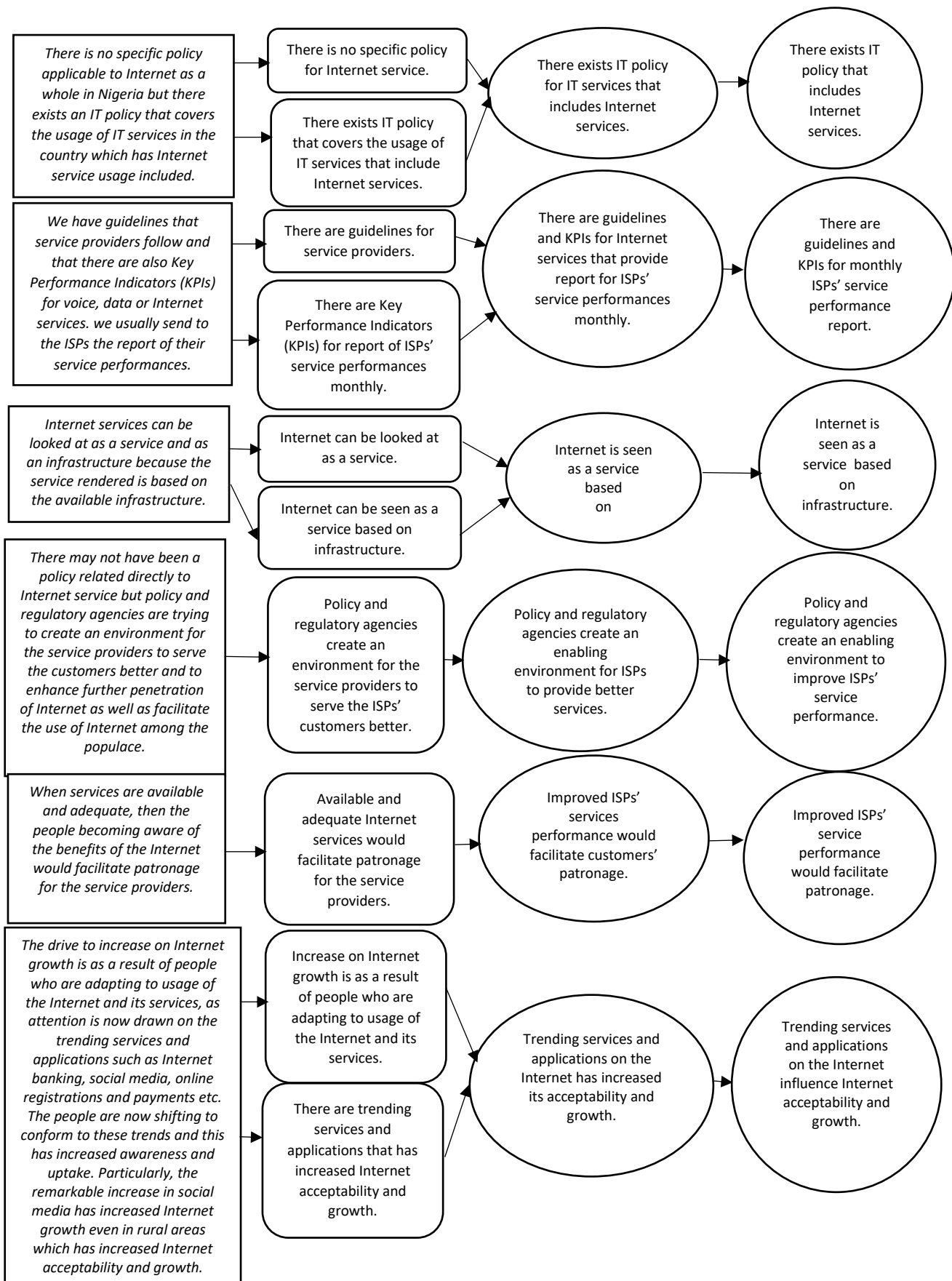


Figure 8a Thematic Map for the Analysis of the Focus Group Discussions Among Policy and Regulatory Agencies on Internet Service Delivery in FCT Abuja, Nigeria - Questions Q1, Q2, Q3, Q4 & Q5.

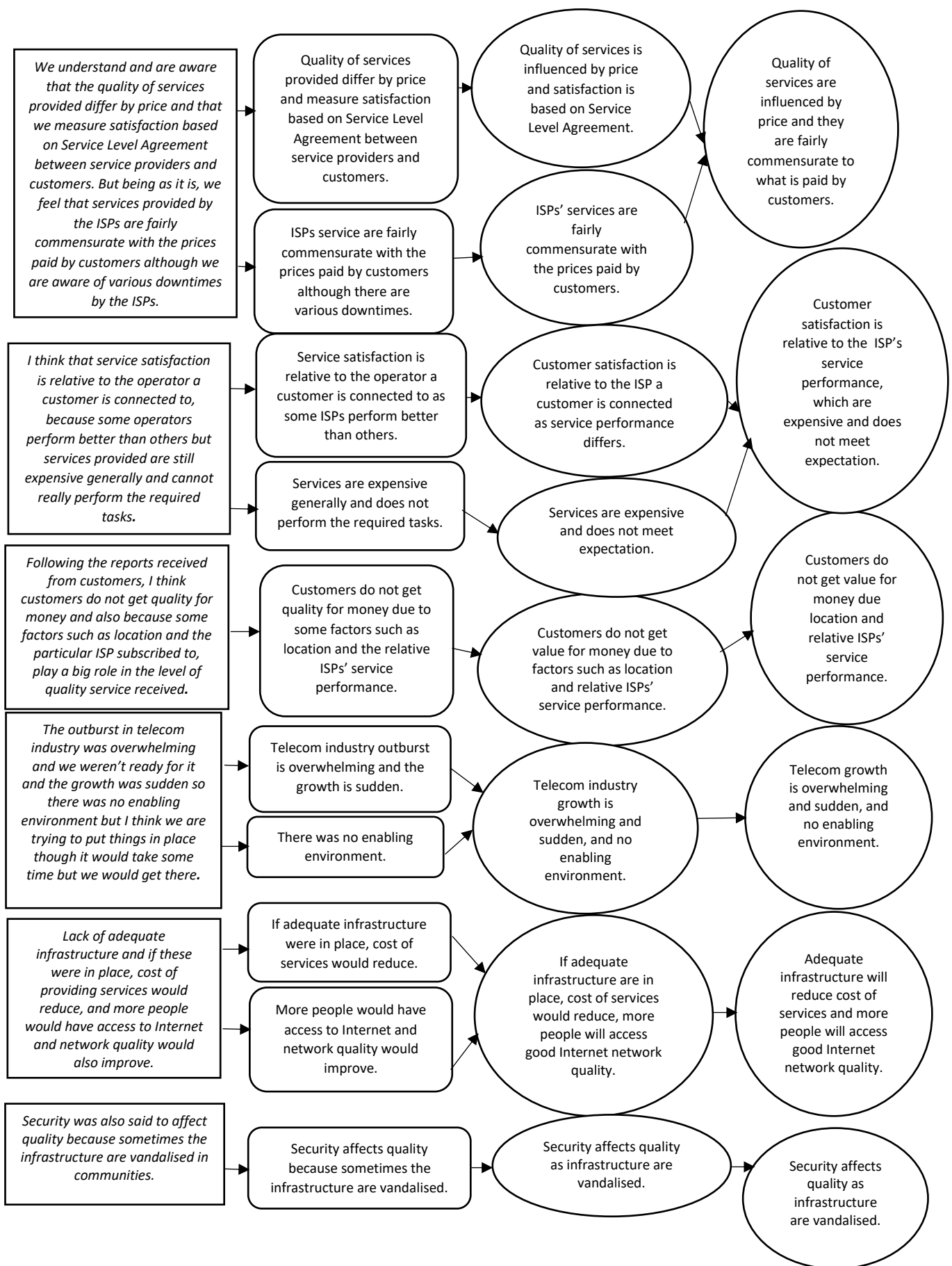


Figure 8b Thematic Map for the Analysis of the Focus Group Discussions Among Policy and Regulatory Agencies on Internet Service Delivery in FCT Abuja, Nigeria - Questions Q1, Q2, Q3, Q4 & Q5 (Continued).

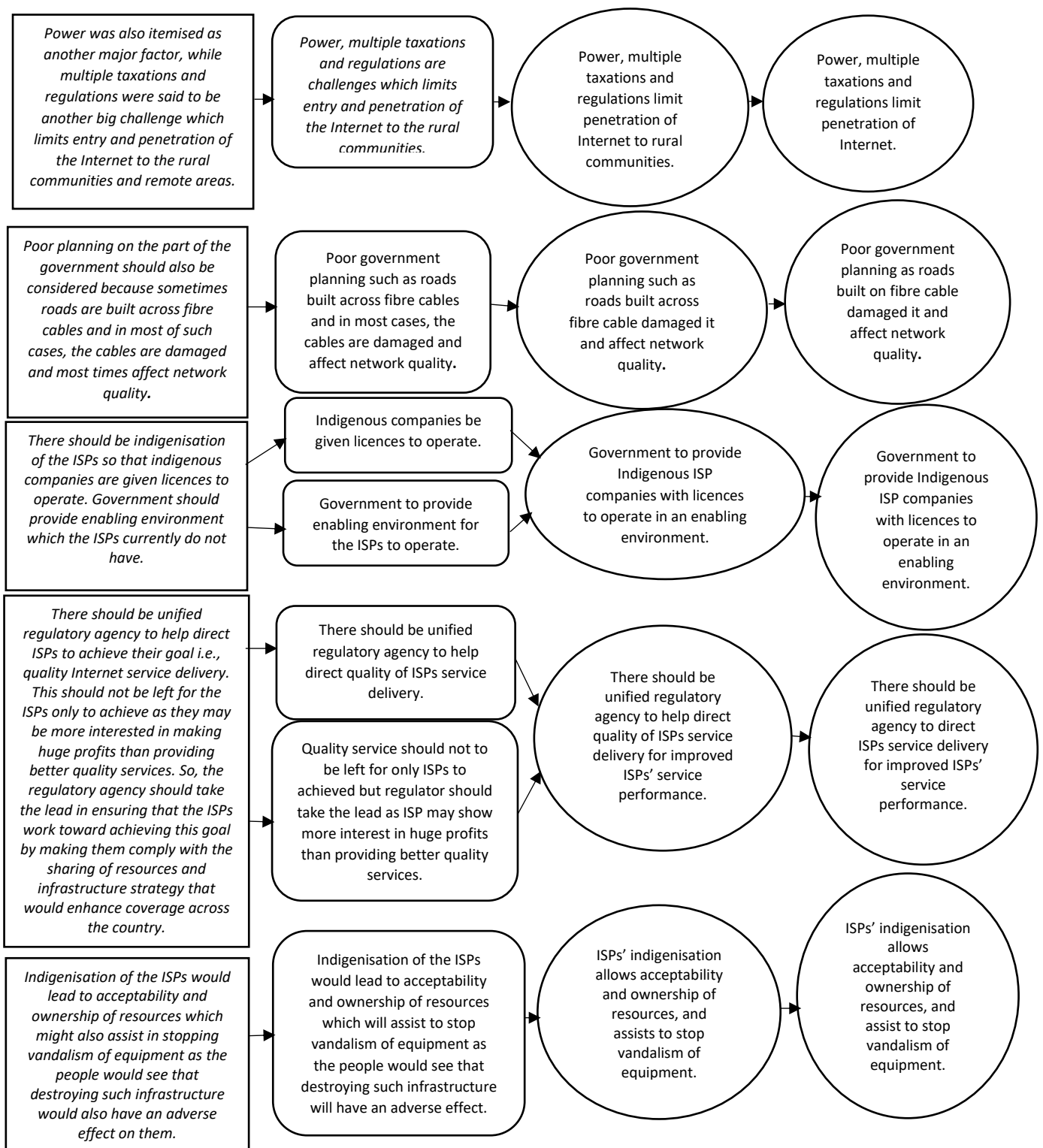


Figure 8c Thematic Map for the Analysis of the Focus Group Discussions Among Policy and Regulatory Agencies on Internet Service Delivery in FCT Abuja, Nigeria - Questions Q1, Q2, Q3, Q4 & Q5 (Continued).

APPENDIX VI
QUESTIONNAIRE FOR QUANTITATIVE APPROACH- REF UEP2014SEP03
EXTENSION
INTERNET SERVICE QUALITY SURVEY

Dear Participant,

Thank you for your decision to participate in this survey, your opinion will be highly appreciated, and it will help to identify best ways to improve the quality of internet service provision.

The researcher is a PhD student at the Bucks New University, United Kingdom, the research is conducted as a requirement for a Doctor of Philosophy. The aim of this questionnaire is to evaluate the extent to which Users' Internet service uptake is influenced by customers' perception of quality Internet services: A Study in Abuja, the Federal Capital Territory, Nigeria.

The questionnaire responses will be used for the purpose of this research only. The survey has been tested to take between 10 – 15mins of your time to complete. The researcher will handle and treat your feedbacks with maximum confidentiality.

Best regards

Ayodele Rowland Adeyemi

SECTION 1: DEMOGRAPHIC

CODE	DIMENSION	RESPONSE
A1	AGE (A)	Please tick. ✓
A1 ₁	16 years to 25 years	
A1 ₂	26 years to 35 years	
A1 ₃	36 years to 45 years	
A1 ₄	46 years to 55 years	
A1 ₅	56 years and above	
CODE	DIMENSION	RESPONSE
G2	GENDER (G)	
G2 ₁	Male	
G2 ₂	Female	
CODE	DIMENSION	RESPONSE
EB3	EDUCATIONAL BACKGROUND (EB)	
EB3 ₁	A-Level	
EB3 ₂	HND	
EB3 ₃	BSc Degree	
EB3 ₄	Master's Degree	
EB3 ₅	Doctorate Degree	
CODE	DIMENSION	RESPONSE
P4	PROFESSION (P)	
P4 ₁	Student	
P4 ₂	Apprentice	
P4 ₃	Vocational Worker	
P4 ₄	Public Sector Professional	
P4 ₅	Private Sector Professional	
CODE	DIMENSION	RESPONSE
IL5	INCOME LEVEL (IL)	
IL5 ₁	Less than N29,000	
IL5 ₂	N30,000 – N59,000	

IL5 ₃	N60,000 – N89, 000	
IL5 ₄	N90,000 – N119,000	
IL5 ₅	N120,000 – N149,000	
IL5 ₆	N150,000 – N179,000	
IL5 ₇	N180,000 – N209,000	
IL5 ₈	N210,000 – N239,000	
IL5 ₉	N240,000 and Above	

Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

CODE	SECTION 2: This set of questions is to obtain your opinions ISPs' Service Performance.	SCALE (Please circle one number for each question)				
	INTERNET SERVICE PROVIDERS' (ISPS) SERVICE PERFORMANCE					
	Network Quality (NQ)					
NQ6	I do not experience Internet disconnection from my ISP.	1	2	3	4	5
NQ7	The downloading and uploading Internet speed from my ISP meet my expectations.	1	2	3	4	5
NQ8	Regardless peak or off-peak hours, this does not affect my Internet speed from my ISP.	1	2	3	4	5
	Customer Service and Technical Support (CS&TS)					
CS&TS9	Customer service staff from my ISP are knowledgeable.	1	2	3	4	5
CS&TS10	Customer service staff from my ISP are willing to respond to my enquiries.	1	2	3	4	5
CS&TS11	There is prompt resolving of technical problems by my ISP.	1	2	3	4	5
	Information Quality (IQ)					
IQ12	My ISP provides sufficient information.	1	2	3	4	5
IQ13	My ISP provides up-to-date information.	1	2	3	4	5
IQ14	My ISP provides relevant information.	1	2	3	4	5
	Security and Privacy	1	2	3	4	5
SP15	Personal information is protected by my ISP.	1	2	3	4	5
SP16	Financial information is protected by my ISP.	1	2	3	4	5
SP17	Transactions with my ISP are secured.	1	2	3	4	5
	SECTION 3: This set of questions is to assess your satisfaction with your ISPs.					
	CUSTOMER SATISFACTION (CS)					
CS18	My choice of my ISP was a wise one.	1	2	3	4	5
CS19	I am satisfied with my ISP.	1	2	3	4	5
CS20	I am pleased to use the service by my ISP.	1	2	3	4	5
CS21	Services provided by my ISP are excellent.	1	2	3	4	5
	SECTION 4: This set of questions is to examine the influence of Internet bandwidth on customers' satisfaction and behavioural intention (customer loyalty).					
	INTERNET BANDWIDTH (IB)	1	2	3	4	5
IB22	The Internet bandwidth provided by my ISP for surfing the Internet meets my expectation.	1	2	3	4	5

IB23	The Internet bandwidth provided by my ISP for streaming videos is adequate for me.	1	2	3	4	5
IB24	The Internet bandwidth I obtain from my ISP makes downloading of files fast.	1	2	3	4	5
IB25	The Internet bandwidth provided by my ISP is sufficient to making my online transaction smooth and fast.	1	2	3	4	5
IB26	If I notice a shortfall in bandwidth delivered to me by my ISP? I will leave my ISP for another service provider.	1	2	3	4	5
SECTION 5: This set of questions is to examine the influence of prices of Internet users' access on customers' satisfaction and behavioural intention (customer loyalty).						
	PRICES OF INTERNET USERS' ACCESS (PI)	1	2	3	4	5
PI27	My ISP provides reasonable prices	1	2	3	4	5
PI28	My ISP provides competitive prices	1	2	3	4	5
PI29	My ISP provides various price offers	1	2	3	4	5
PI30	If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP.	1	2	3	4	5
SECTION 6: This set of questions is to assess the behavioural intention (customer loyalty) of ISPs' customers						
	BEHAVIOURAL INTENTION (BI)	1	2	3	4	5
BI31	I will deal with my ISP more in future.	1	2	3	4	5
BI32	I would consider my ISP as my first choice.	1	2	3	4	5
BI33	I will say favourable things about my ISP.	1	2	3	4	5
BI34	I will recommend my ISP to other people.	1	2	3	4	5
BI35	I will be loyal customer of my ISP.	1	2	3	4	5
B36	I will not switch to competitors if my ISP increases price a little.	1	2	3	4	5

APPENDIX VII

QUALITATIVE SEMI-STRUCTURED INTERVIEW QUESTIONS- REF UEP2014SEP03 EXTENSION

SECTION 1 - Demographic

SECTION 2 - Internet Service Providers' (ISPs) Service Performance

- (i) Describe your experience with Internet connection speed and loss of services of your Internet Service Provider (ISP)?
- (ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?
- (iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?
- (iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?
- (v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

SECTION 3 - Customer Satisfaction

- (i) Describe why you made your ISP your choice?
- (ii) Describe how you feel about the services provided by your ISP?

SECTION 4 – Behavioural Intention (Customer Loyalty)

- (i) Can you describe why you continue to use your ISP as your best choice?
- (ii) Describe what you will recommend about your ISP to others?
- (iii) What would be your reaction in case of just a little price increases by your ISP?

SECTION 5 – Internet Bandwidth

- (i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?
- (ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

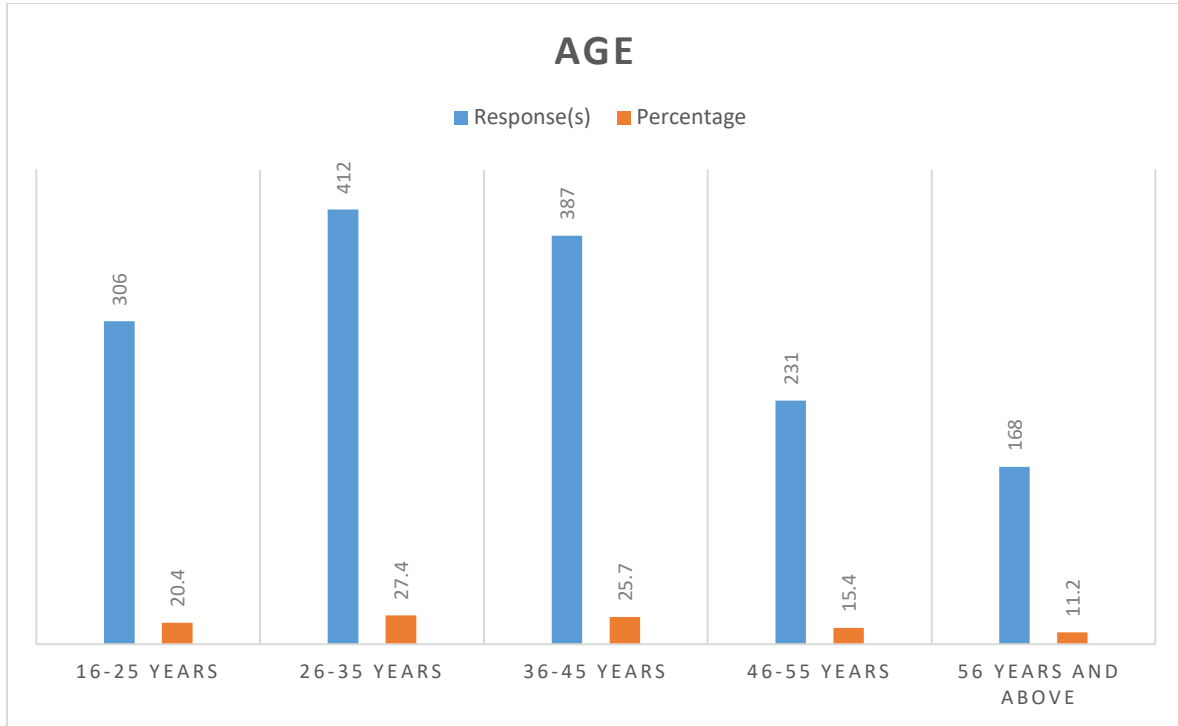
(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

**APPENDIX VIII
DATA FOR QUANTITATIVE ANALYSIS**

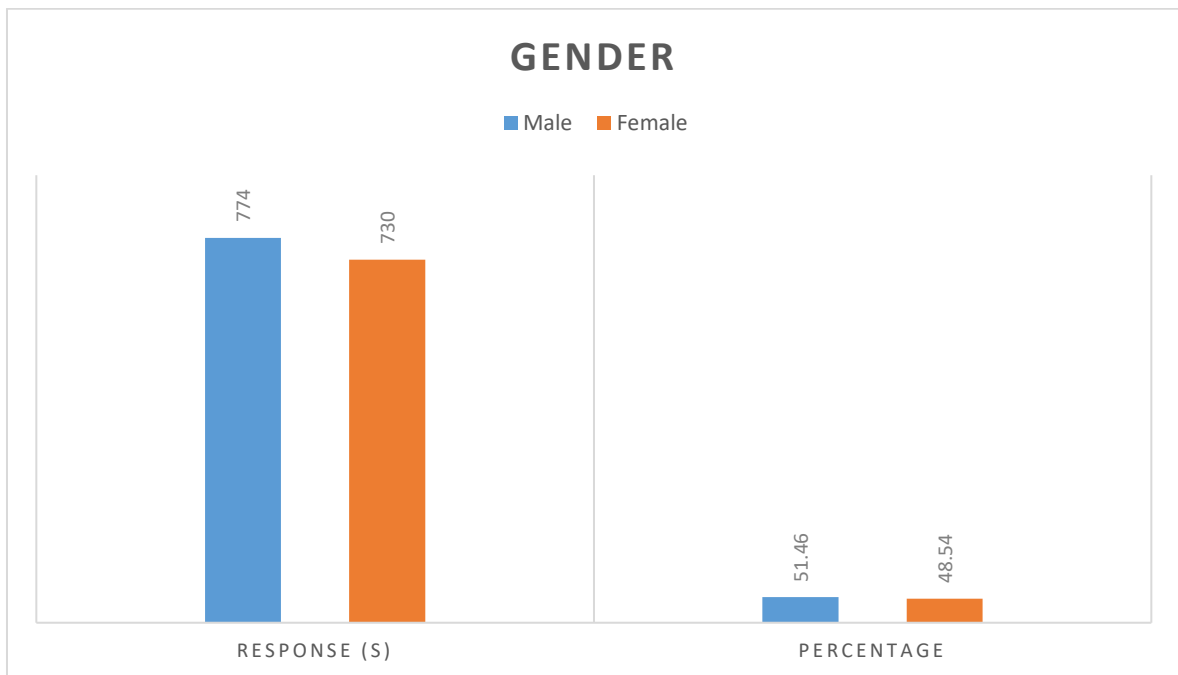
1,504 Responses

Section 1. Demographic

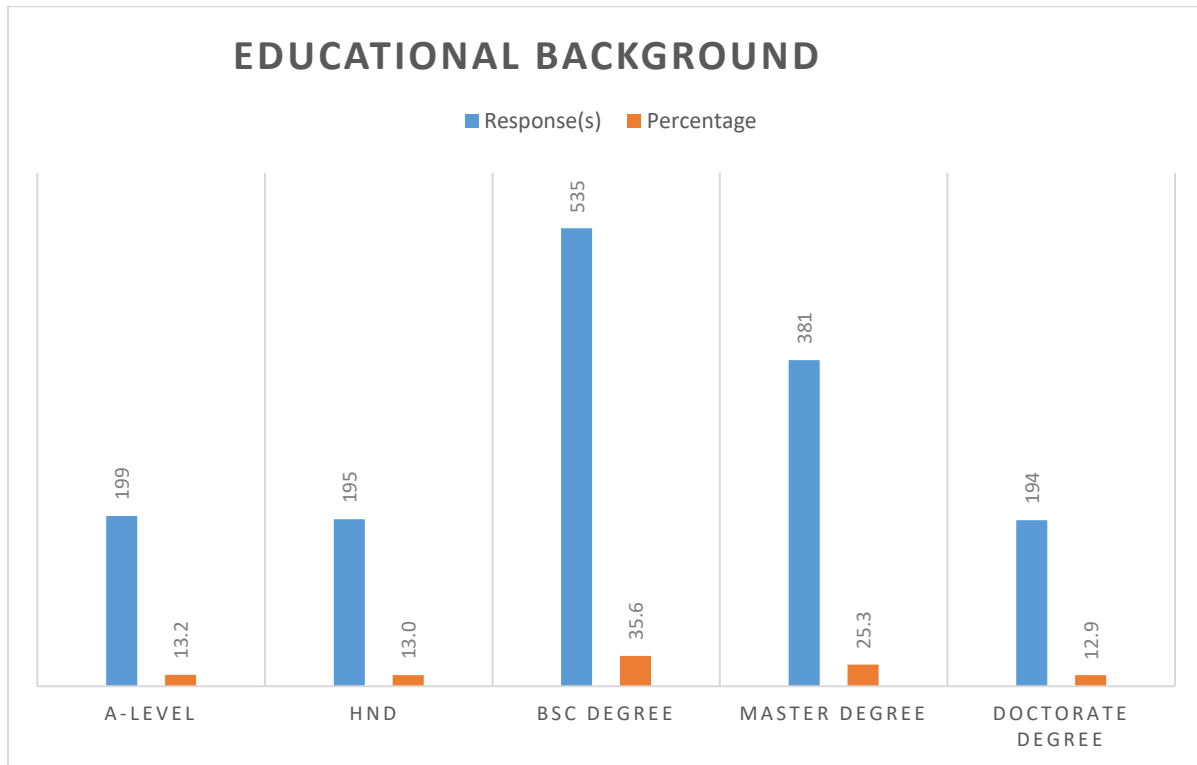
A1. Age (A)



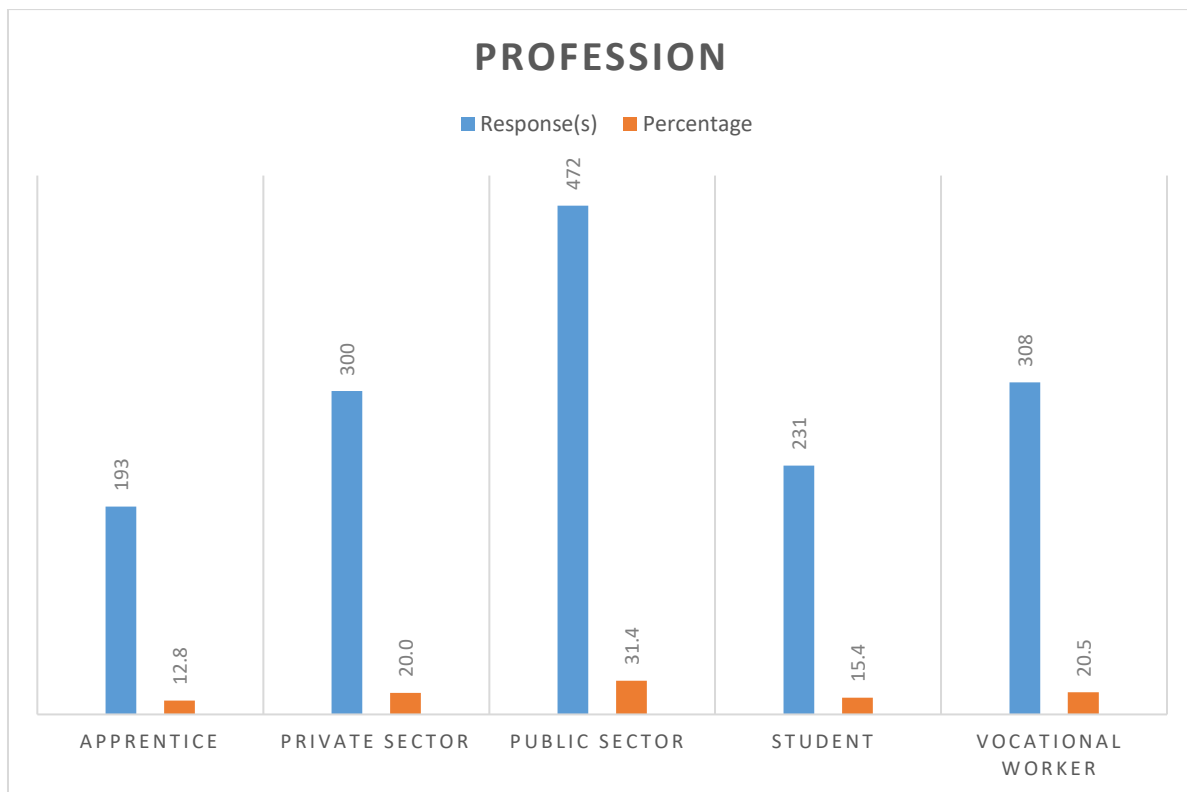
G2. Gender (G)



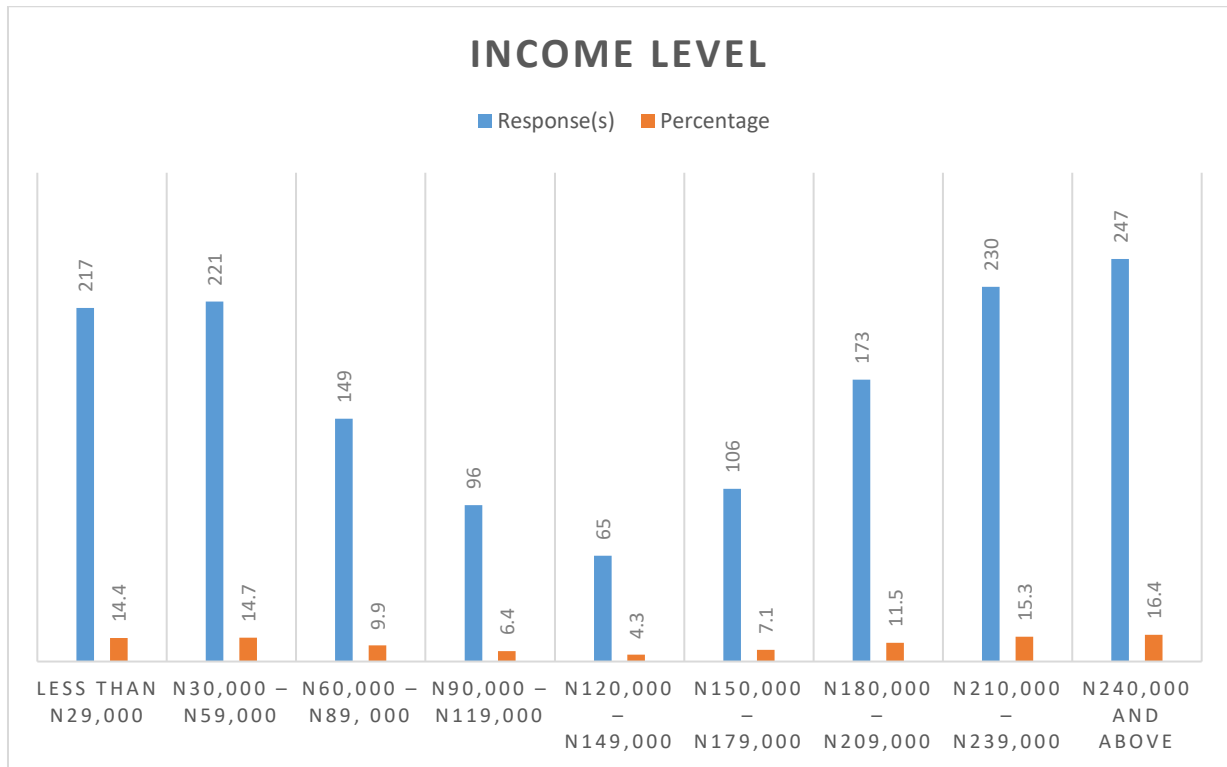
EB3. Educational Background (EB)



P4. Profession (P)



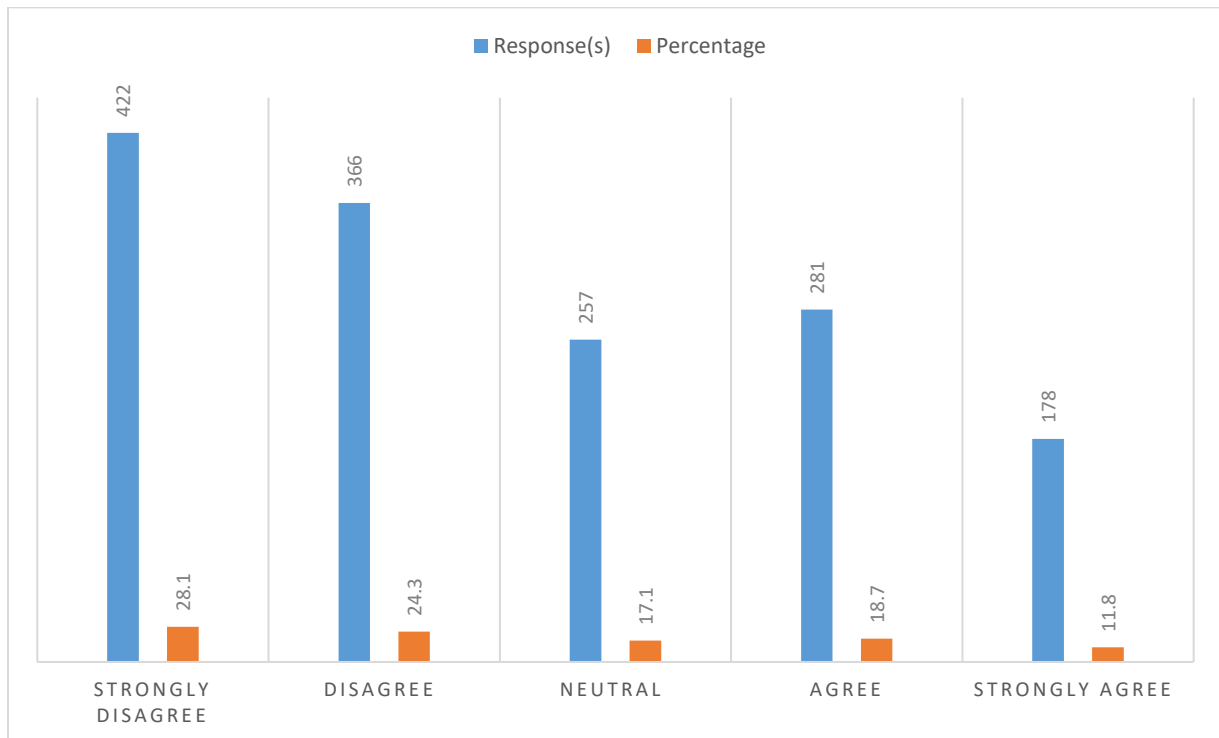
IL5. Income Level(IL)



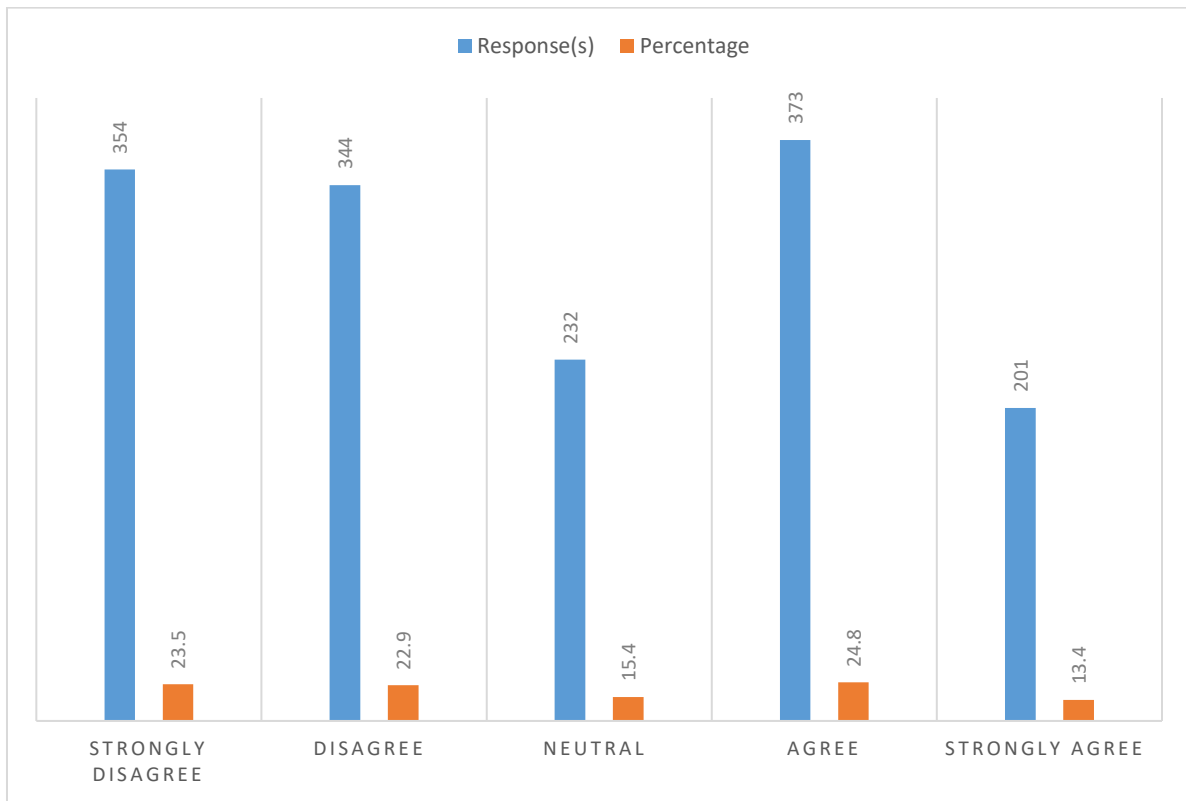
Section 2: Internet Service Providers (ISPs) Service Performance

(i) Network Quality (NQ)

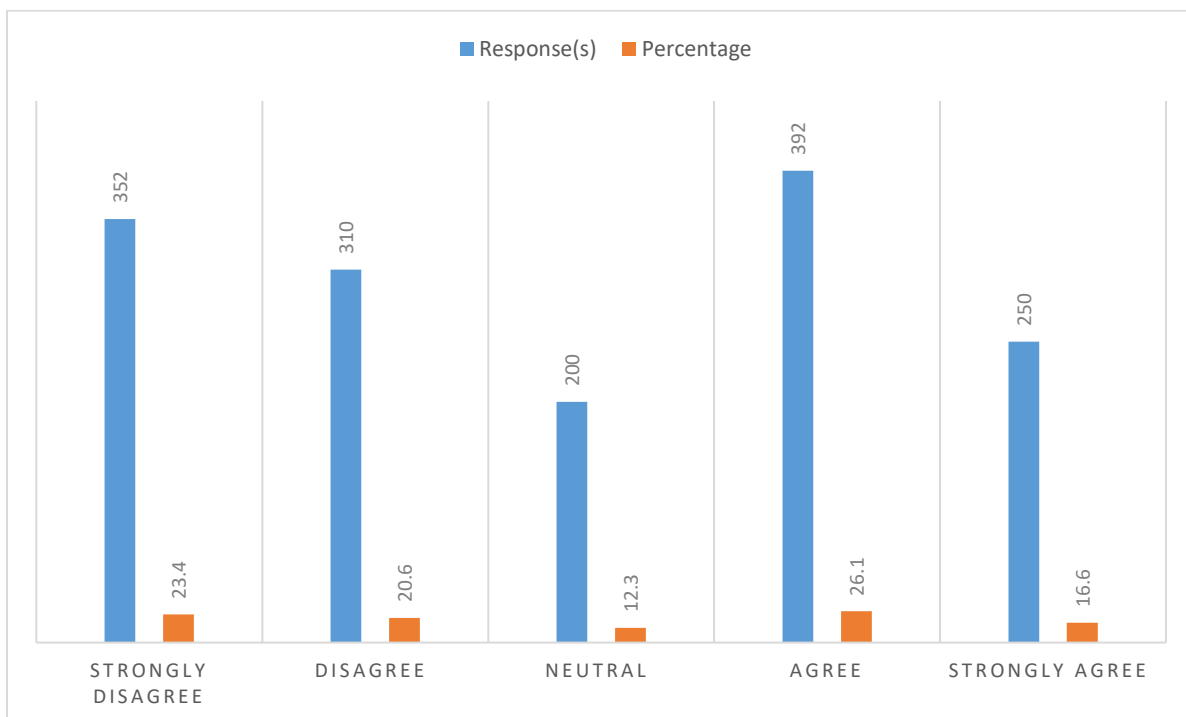
NQ6. I do not experience Internet disconnection from my ISP.



NQ7. The downloading and uploading Internet speed from my ISP meet my expectations.

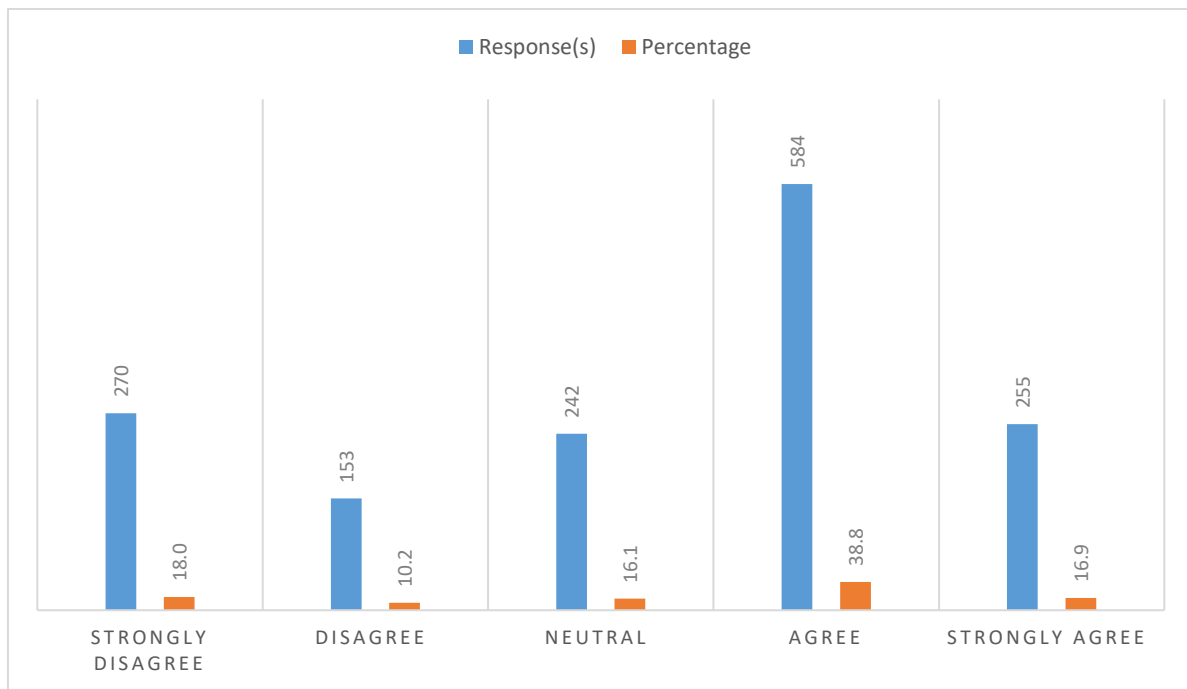


NQ8. Regardless peak or off-peak hours, this does not affect my Internet speed from my ISP.

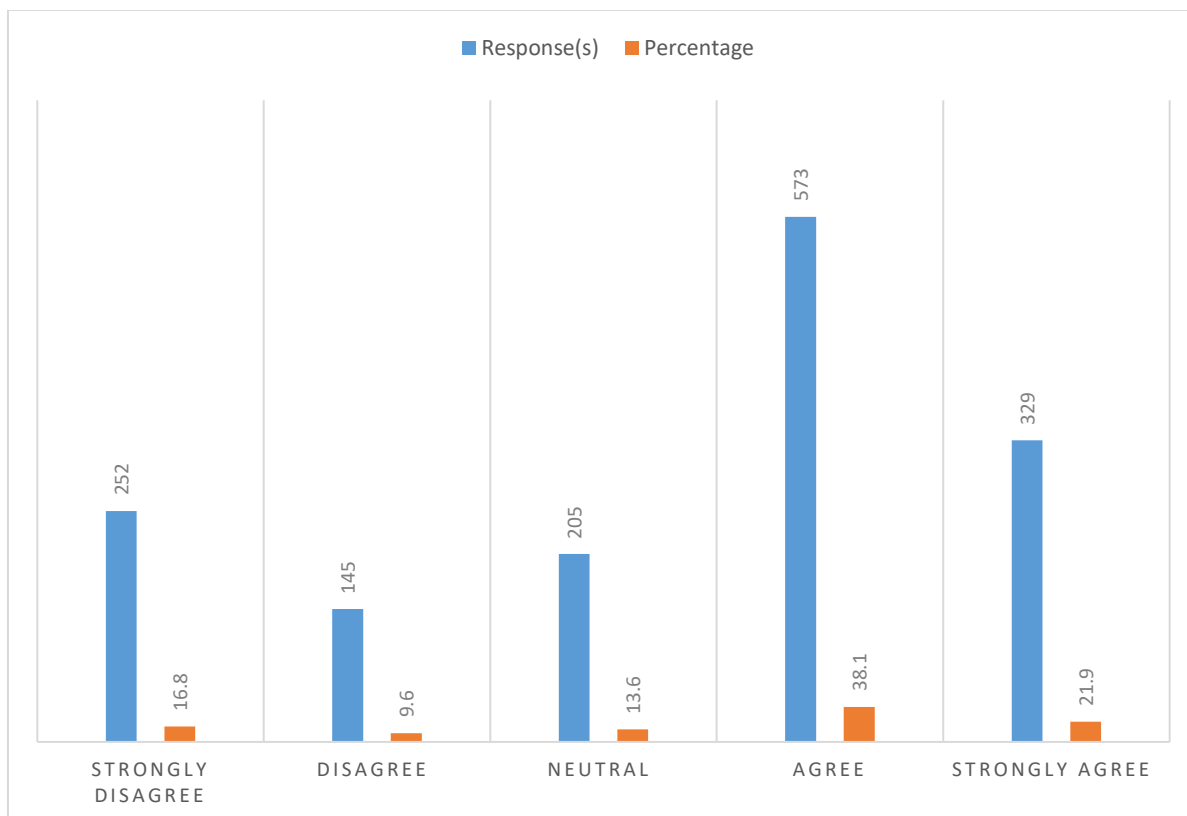


(ii) Customer Service and Technical Support (CS&TS)

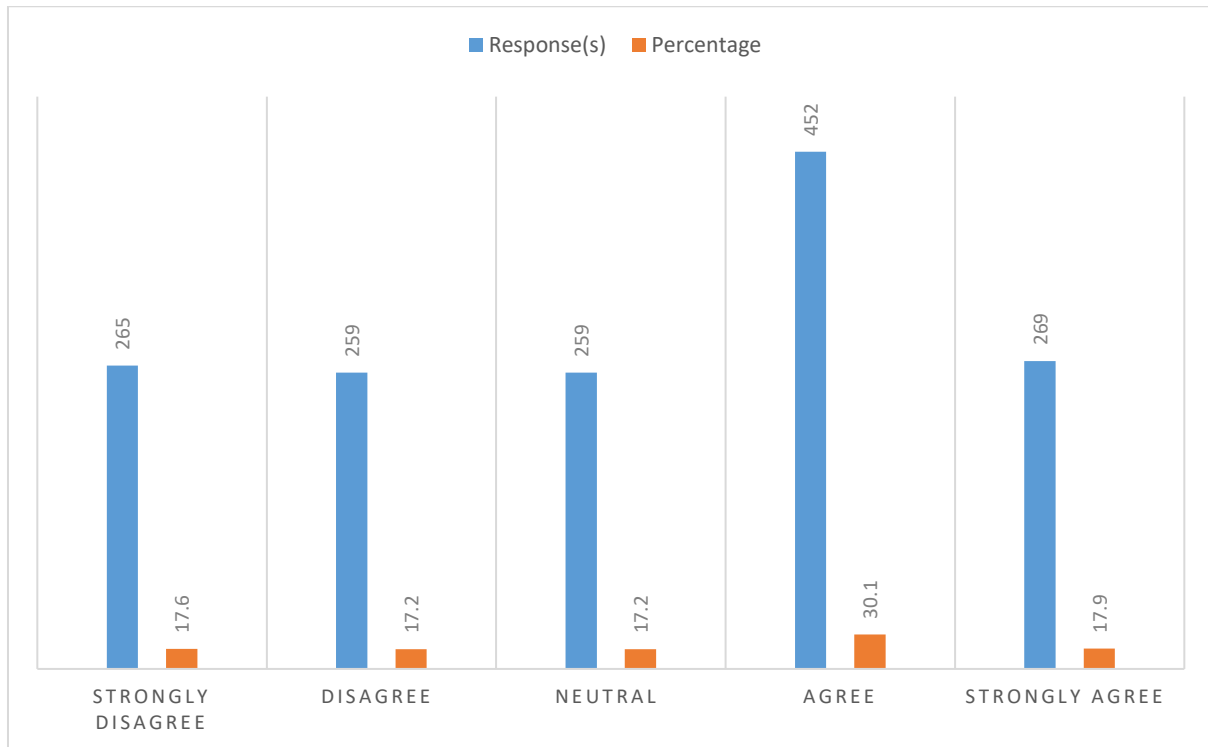
CS&TS9. Customer service staff from my ISP are knowledgeable.



CS&TS10. Customer service staff from my ISP are willing to respond to my enquiries.

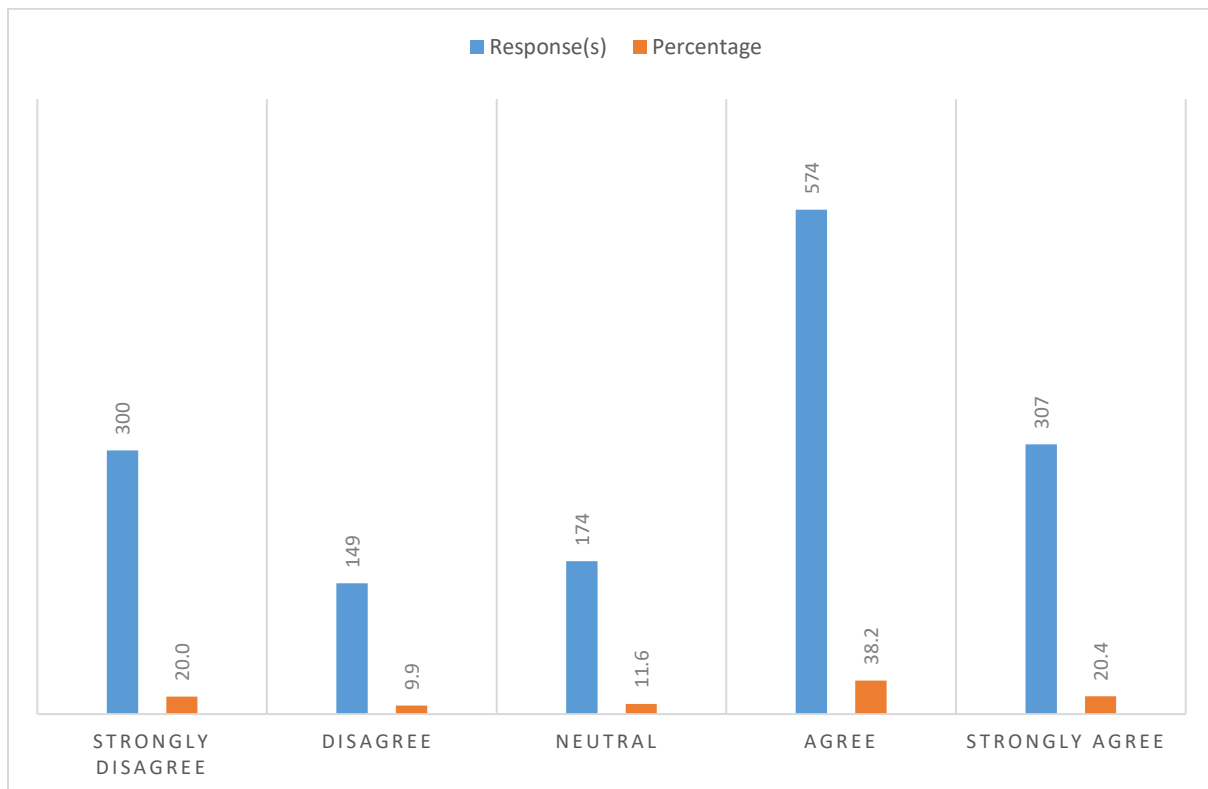


CS&TS11. There is prompt resolving of technical problems by my ISP.

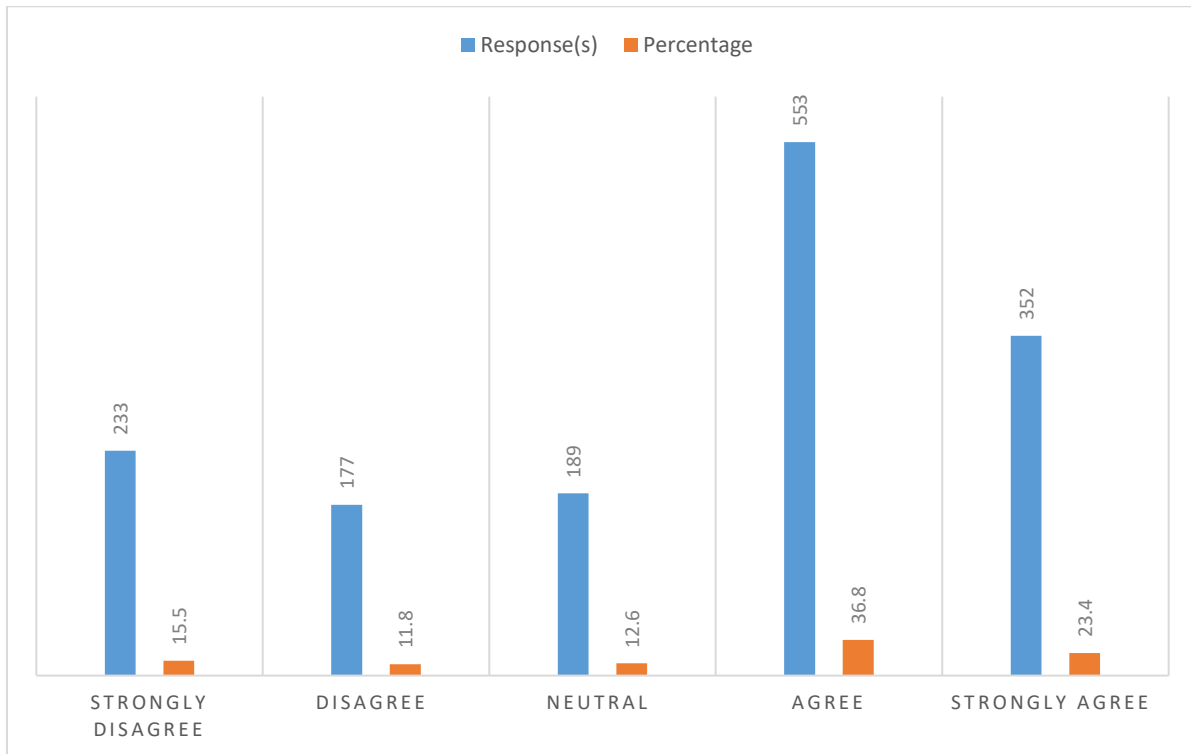


(iii) Information Quality (IQ)

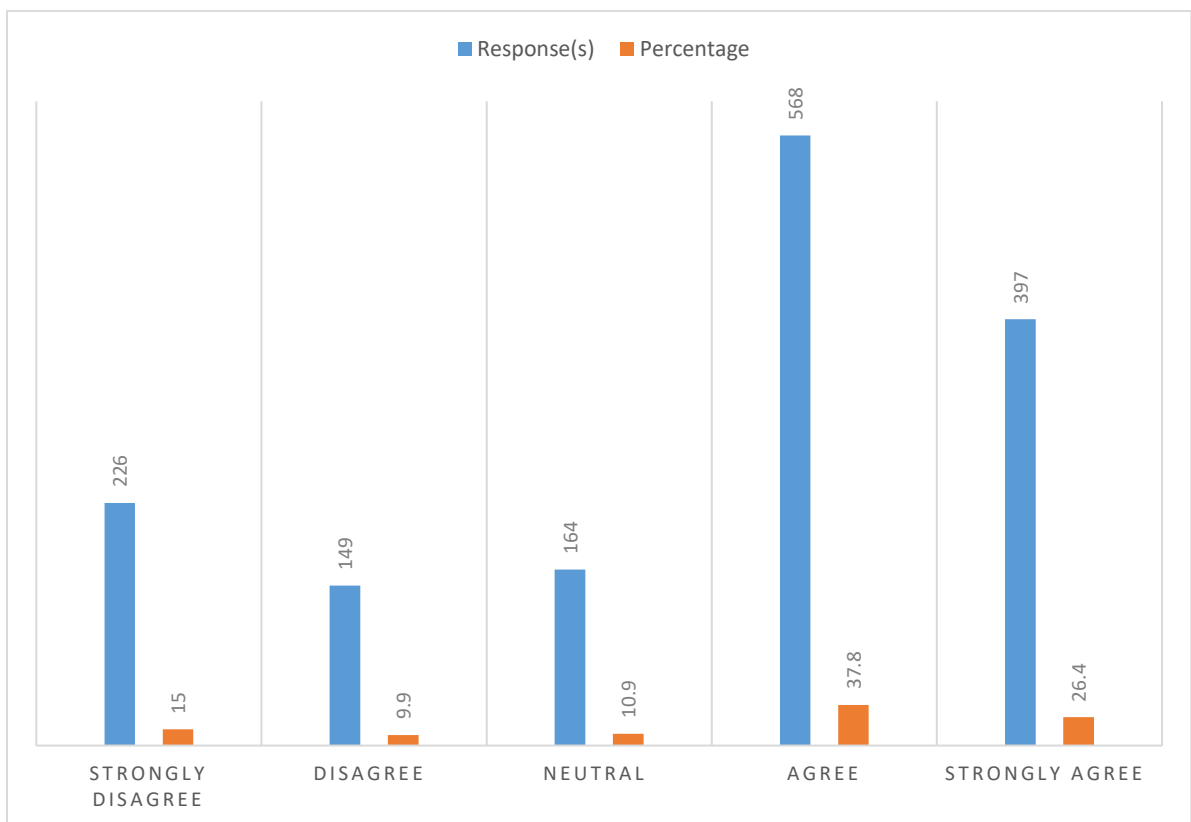
IQ12. My ISP provides sufficient information.



IQ13. My ISP provides up-to-date information.

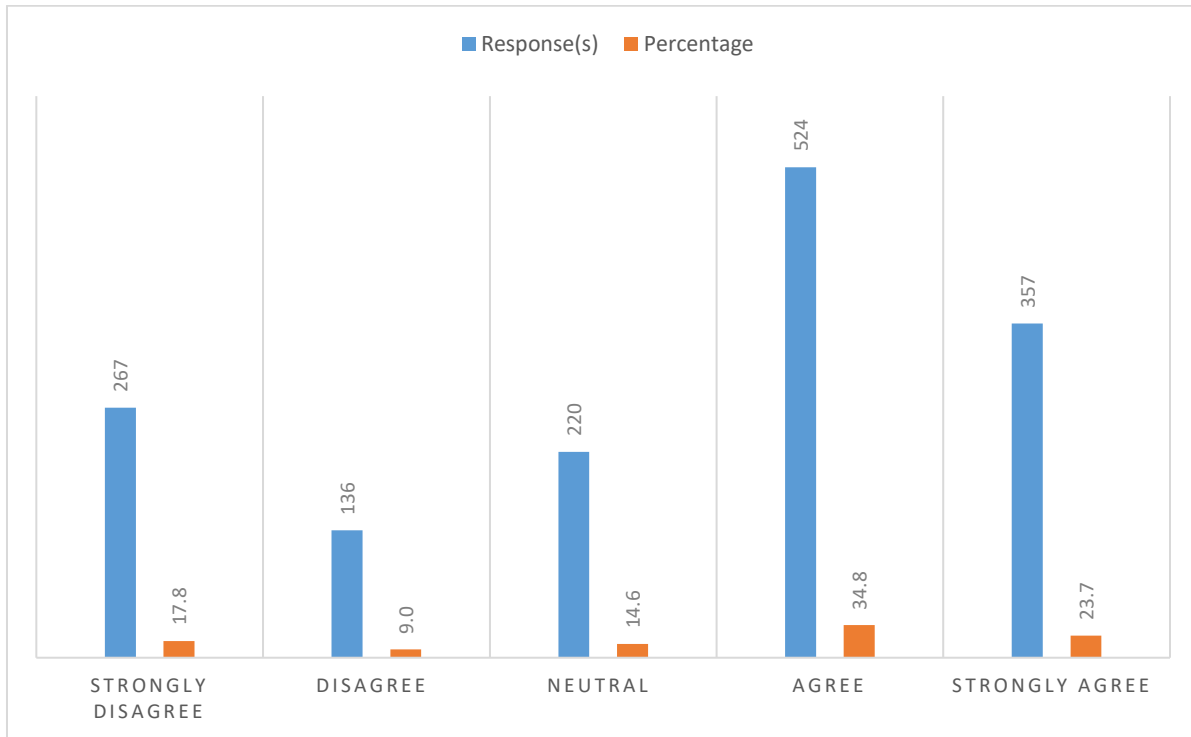


IQ14. My ISP provides relevant information.

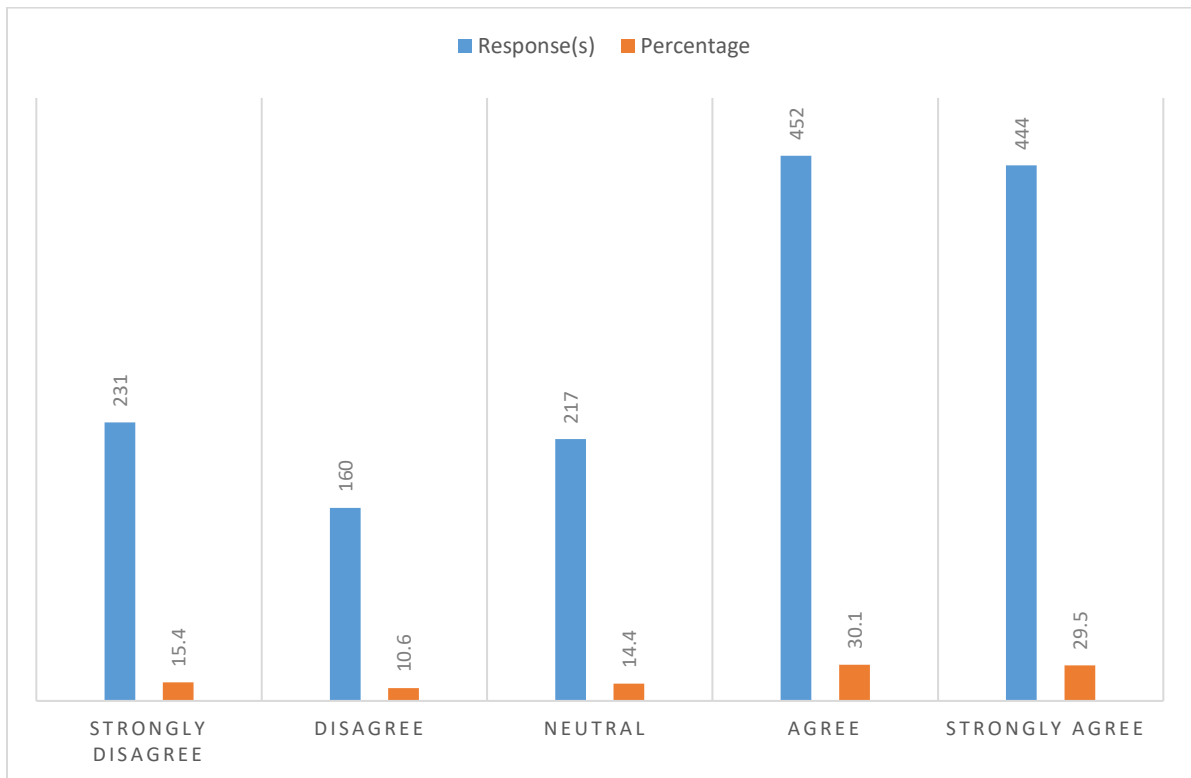


(iii) Security and Privacy (SP)

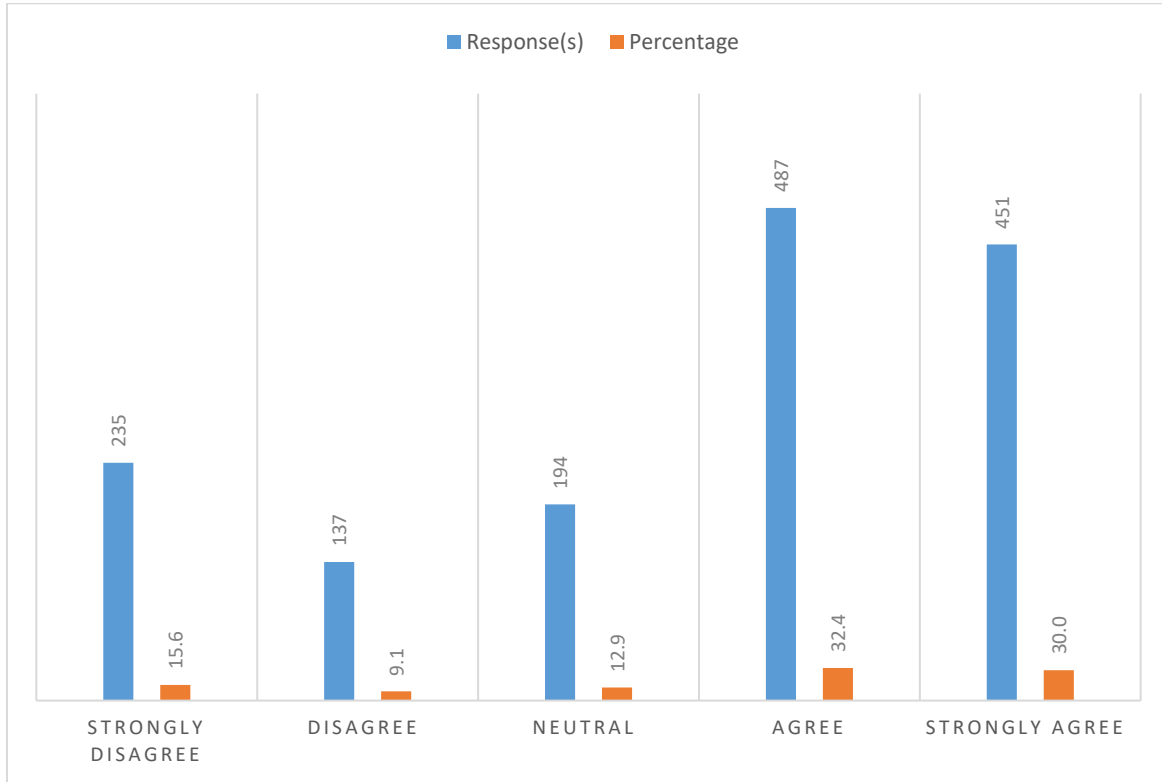
SP15. My choice of my ISP was a wise one.



SP16. Financial information is protected by my ISP.

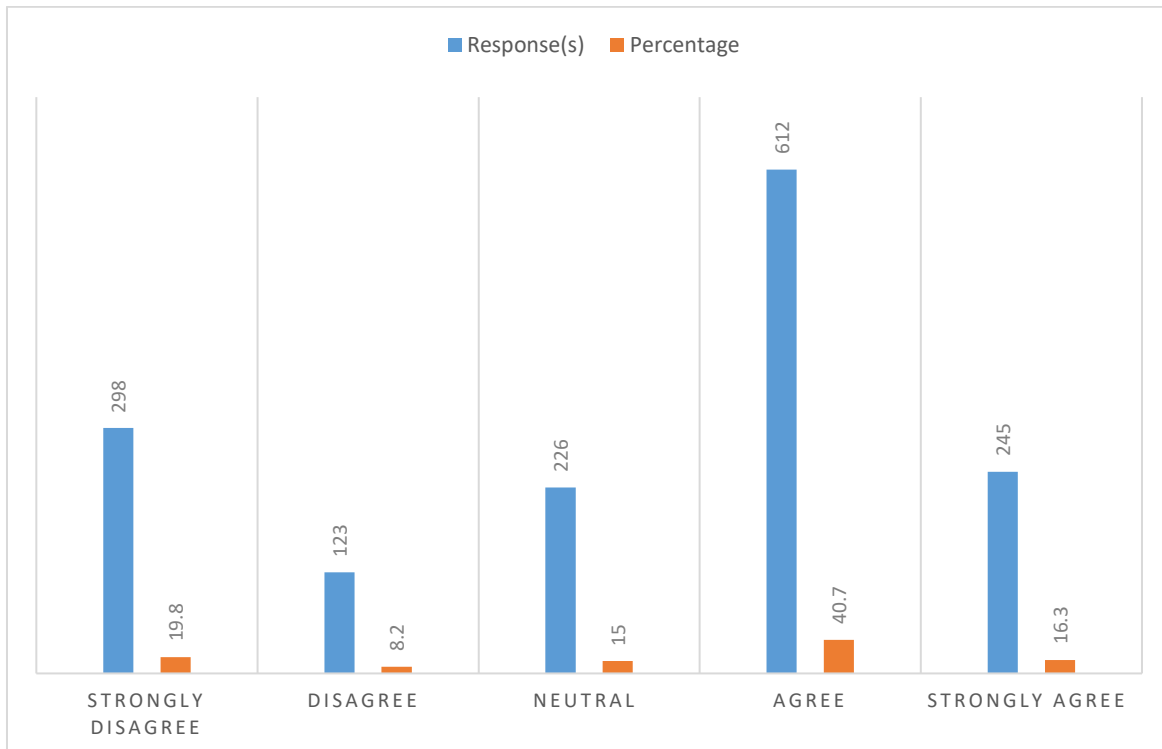


SP17. Transactions with my ISP are secured.

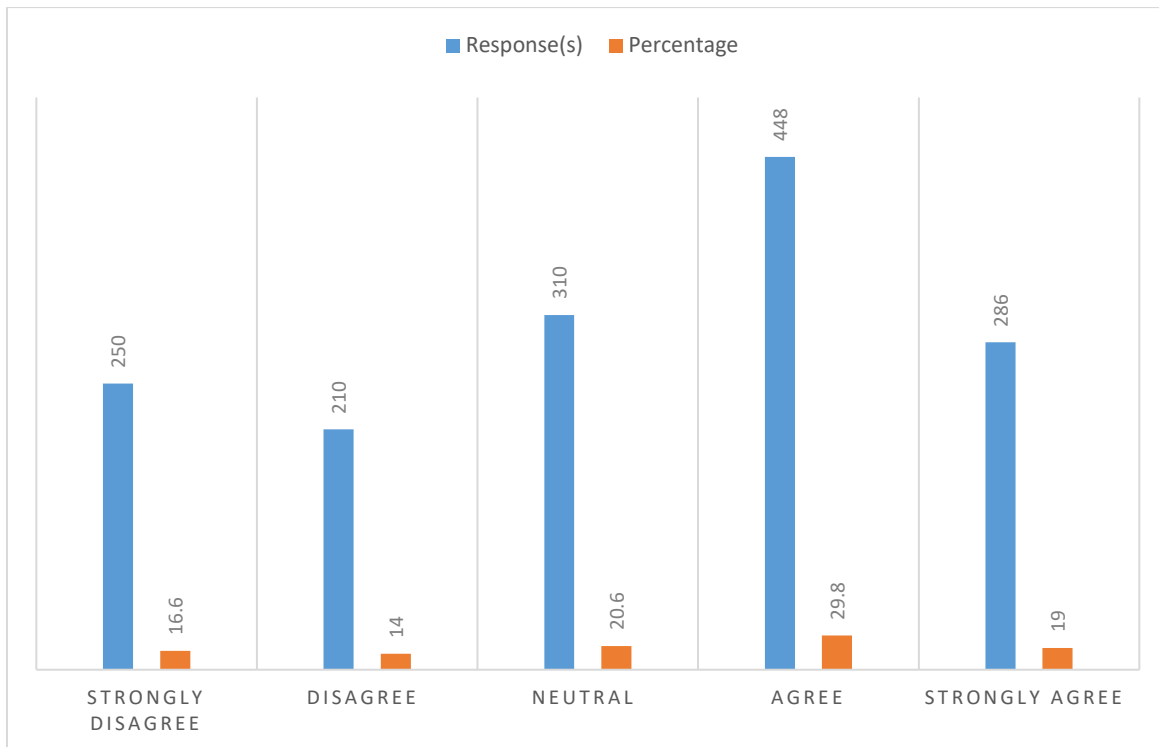


Section 3: Customer Satisfaction (CS) on ISPs' Service Performance

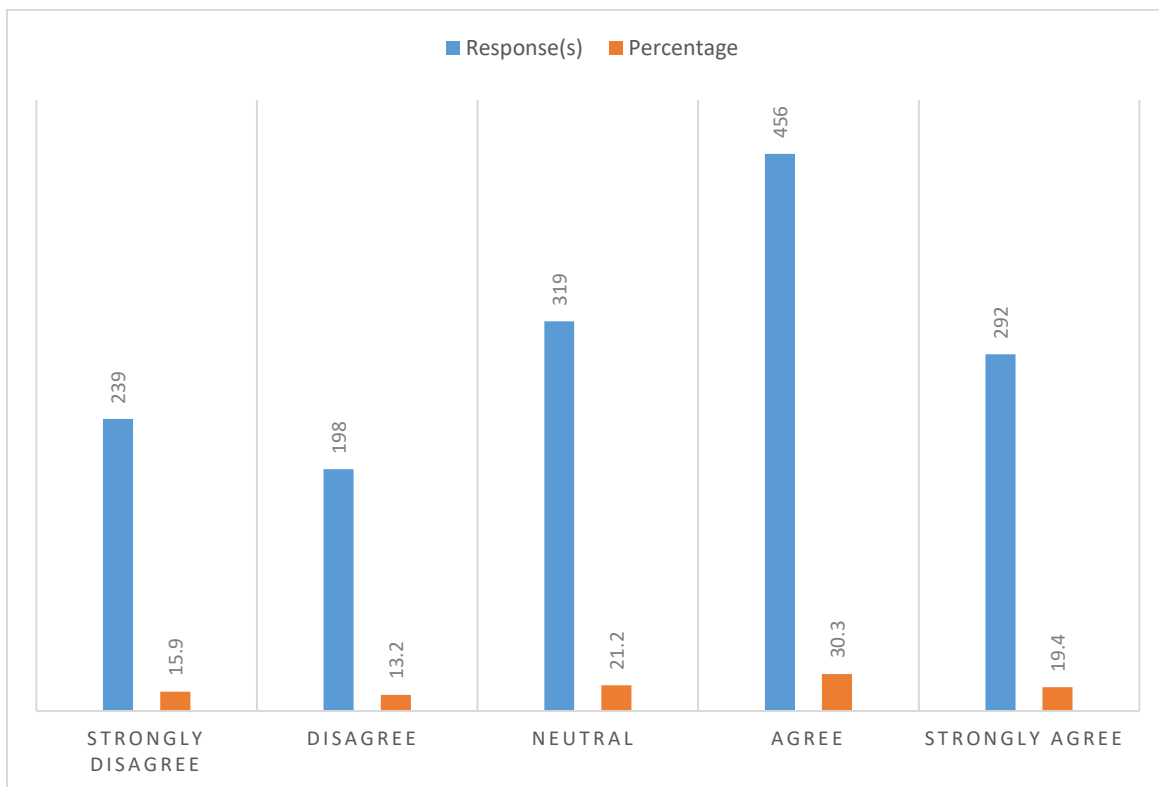
CS18. My choice of my ISP was a wise one.



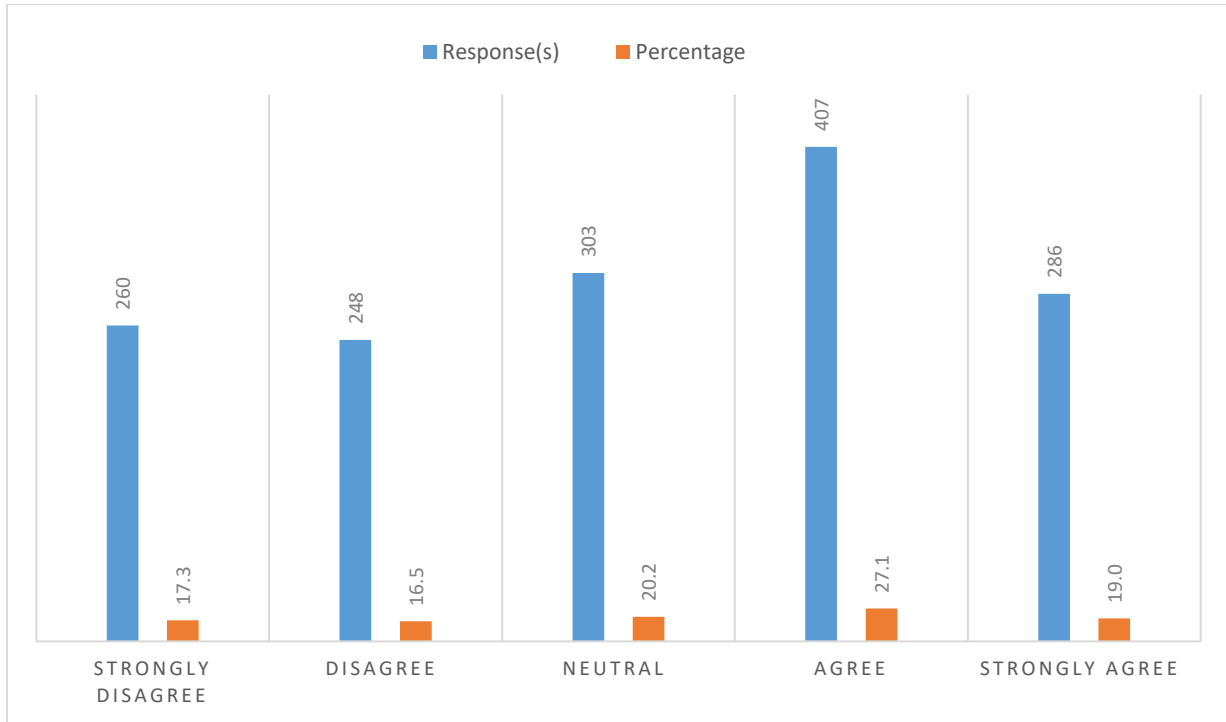
CS19. I am satisfied with my ISP.



CS.20. I am pleased to use the service by my ISP.

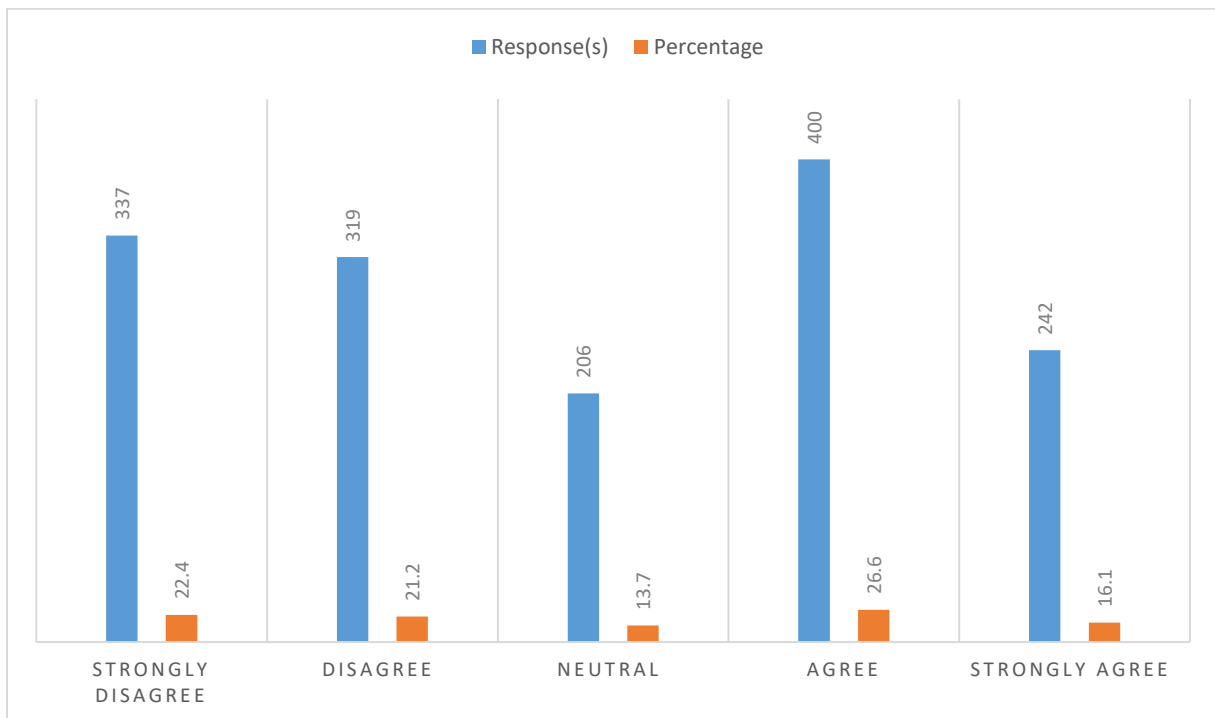


CS.21. Services provided by my ISP are excellent.

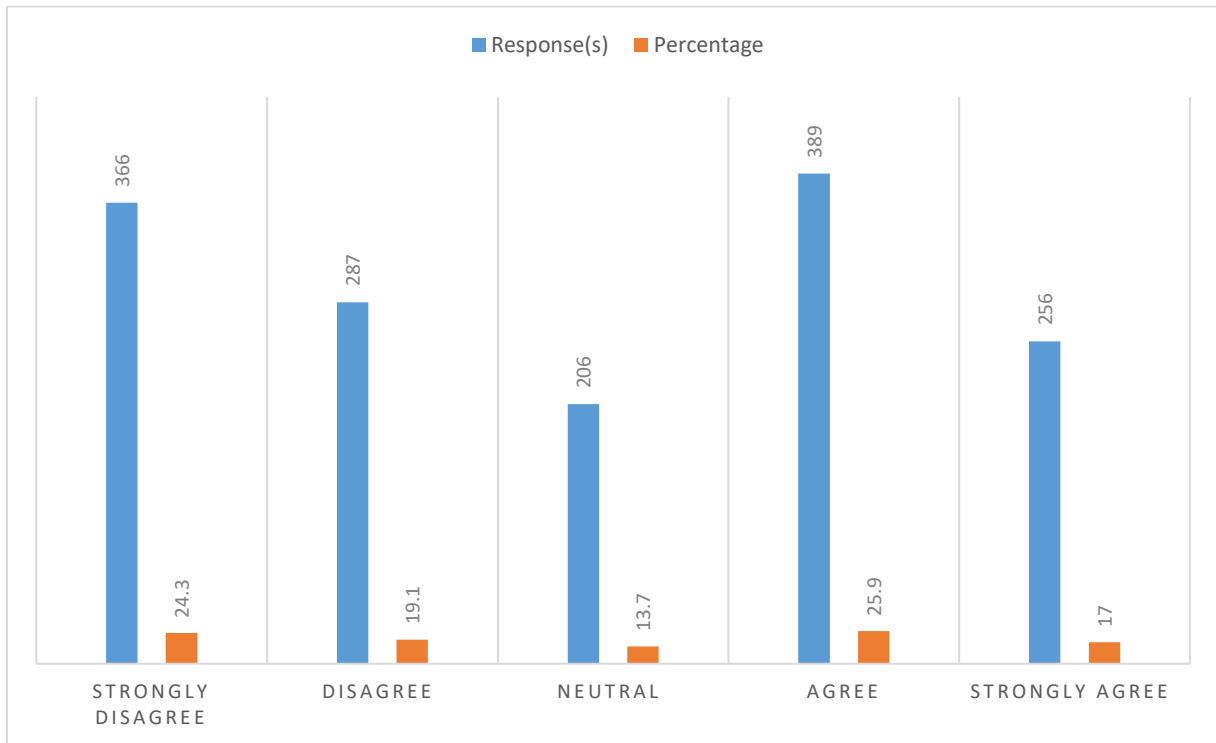


Section 4: Internet Bandwidth (IB)

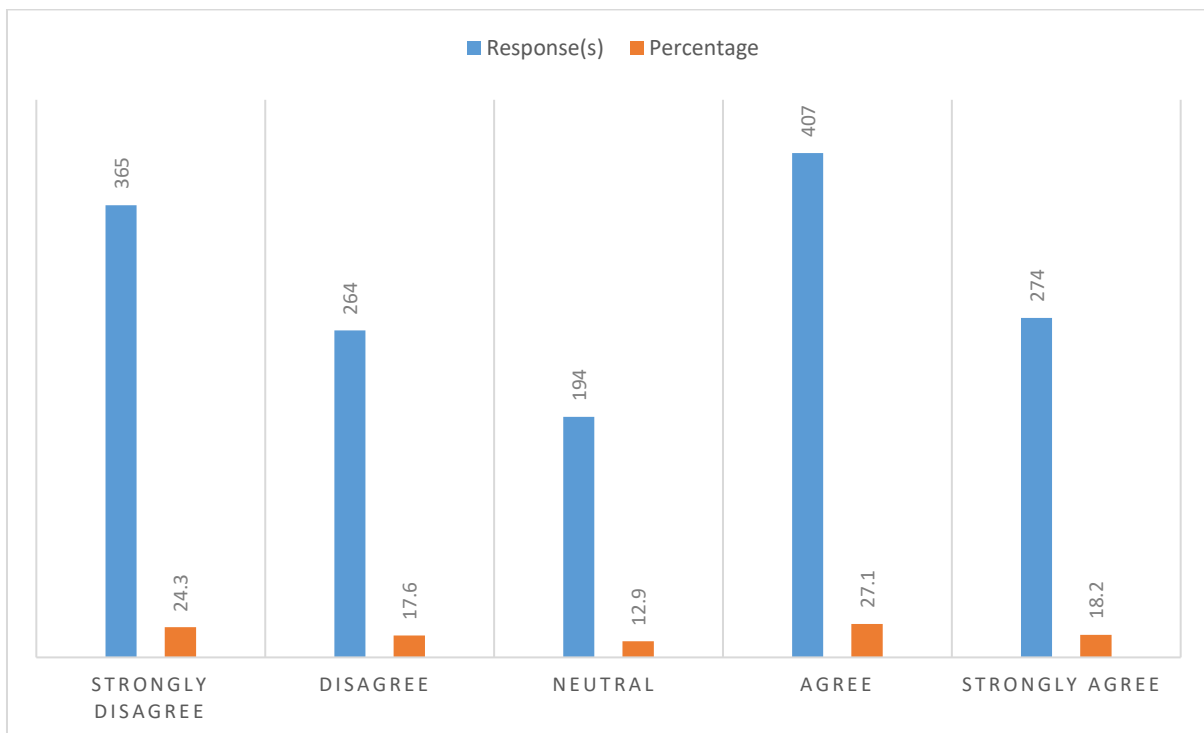
IB22. The Internet bandwidth provided by my ISP for surfing the Internet meets my expectation.



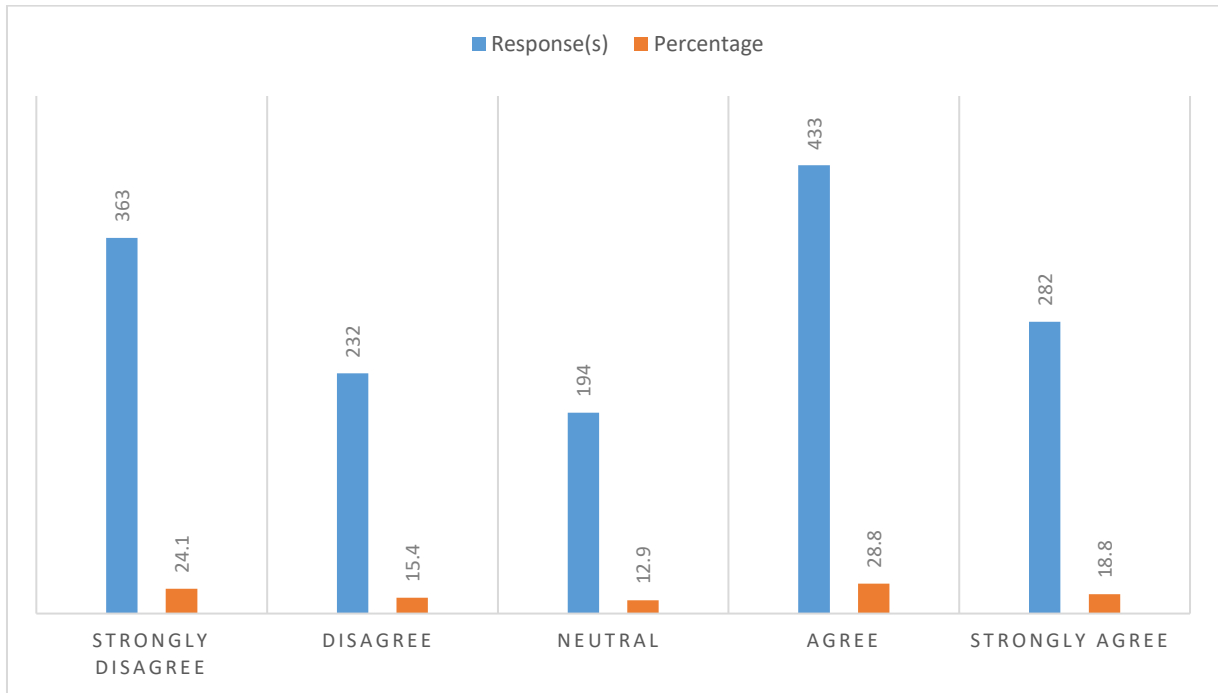
IB23. The Internet bandwidth provided by my ISP for streaming videos is adequate for me.



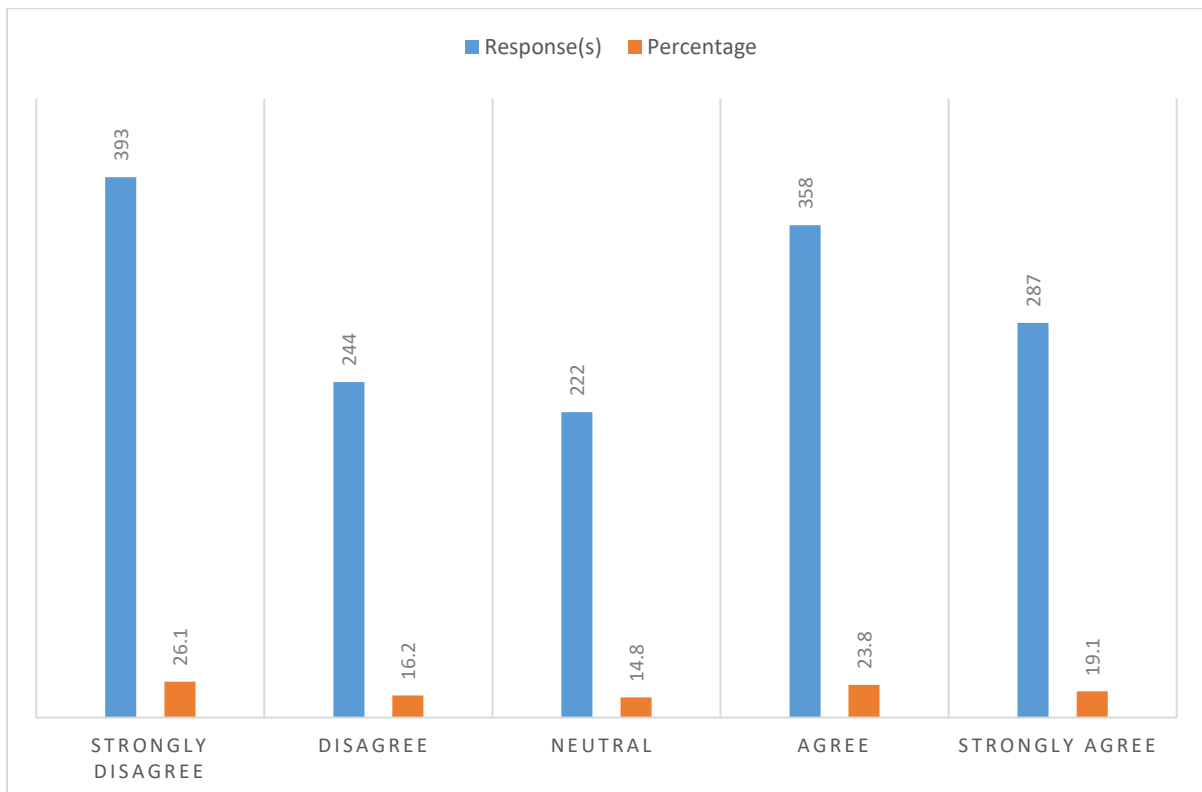
IB24. The Internet bandwidth I obtain from my ISP makes downloading of files fast.



IB25. The Internet bandwidth provided by my ISP is sufficient to making my online transaction smooth and fast.

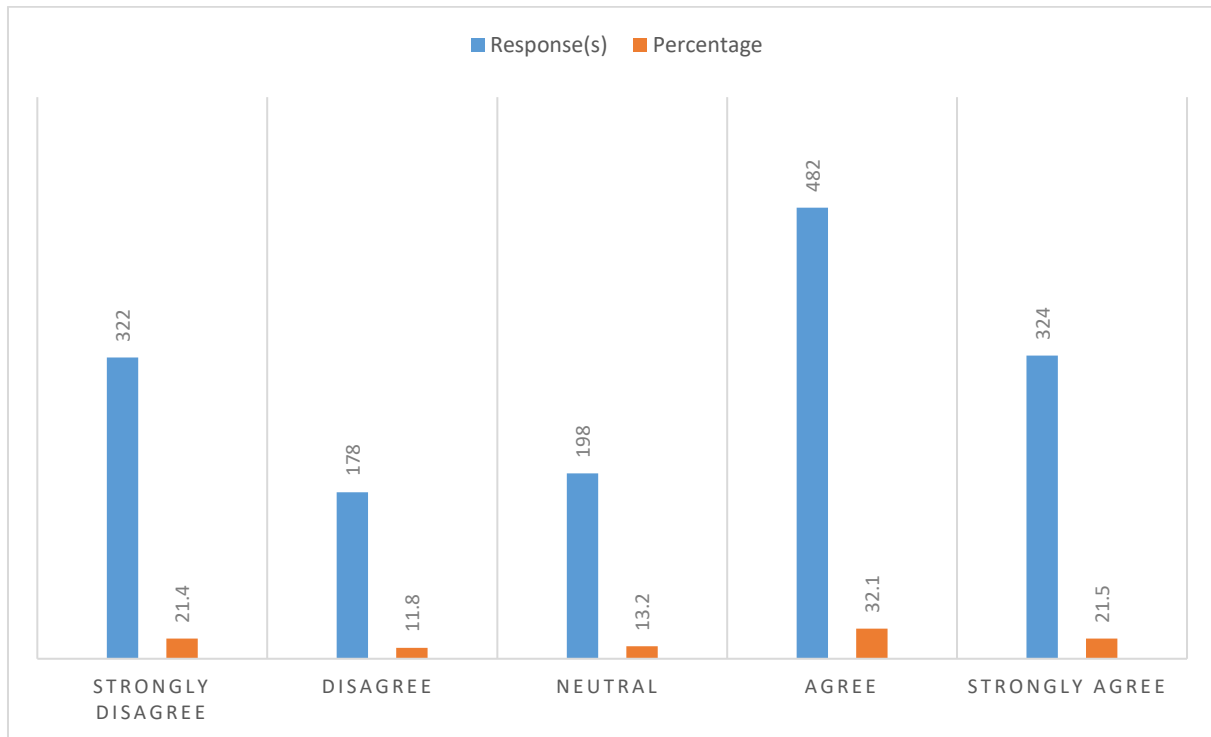


IB26. If I notice a shortfall in bandwidth delivered to me by my ISP? I will leave my ISP for another service provider.

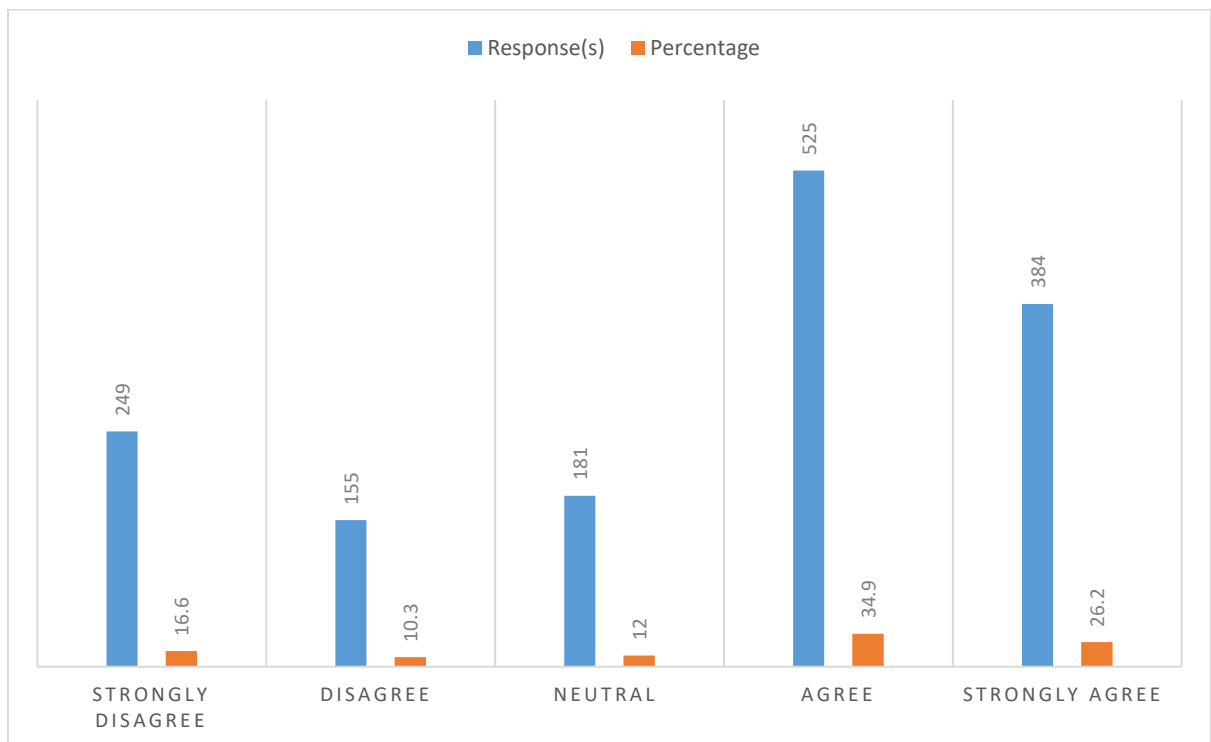


Section 5: Prices of Internet Users' Access (PI)

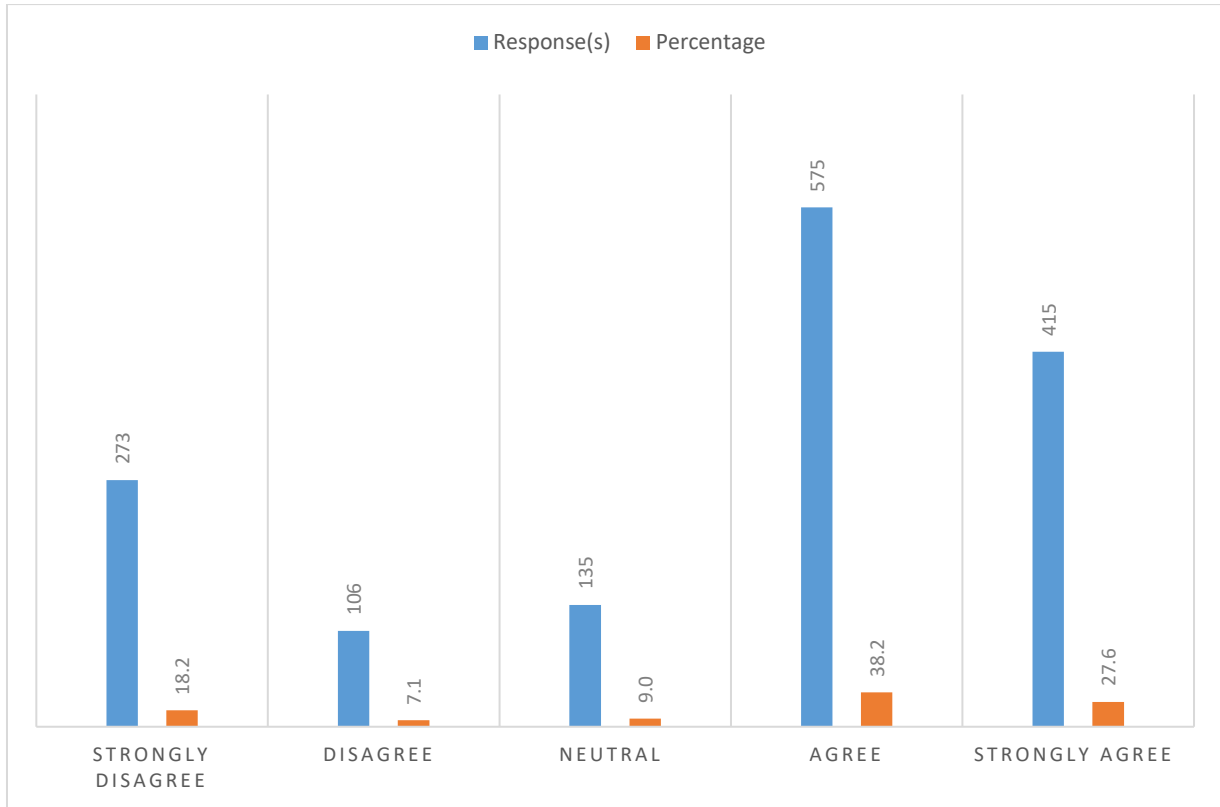
PI27. My ISP provides reasonable prices.



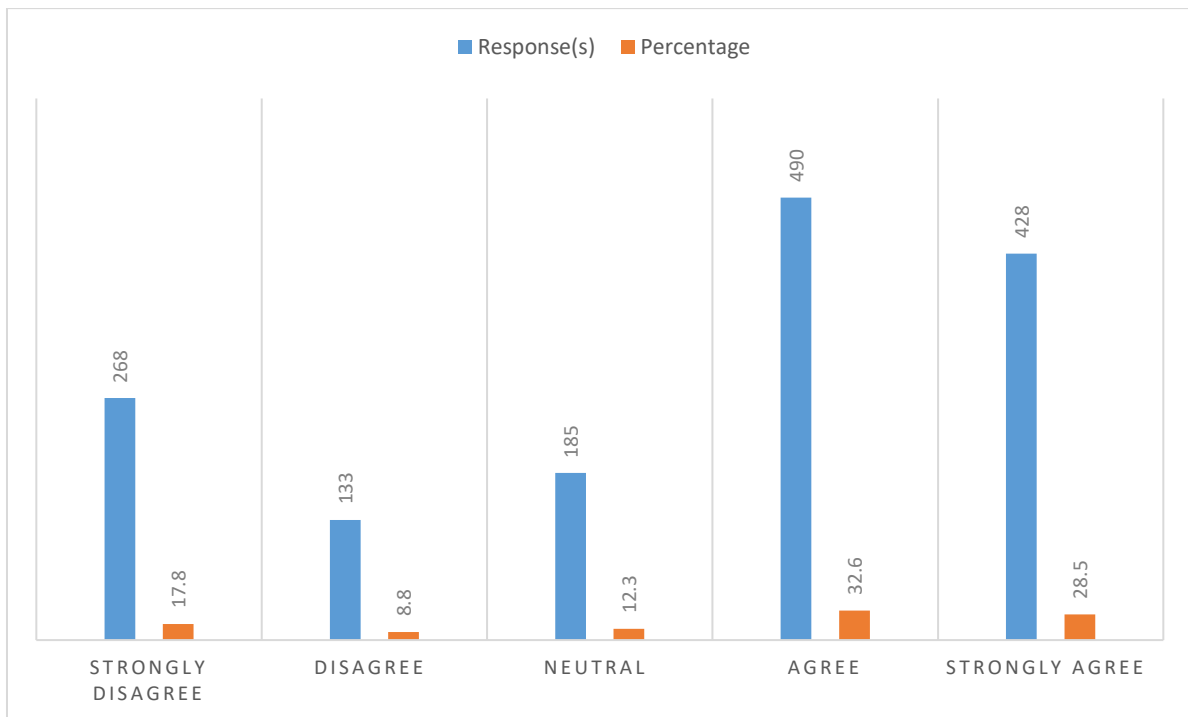
PI28. My ISP provides competitive prices.



PI29. My ISP provides various price offers.

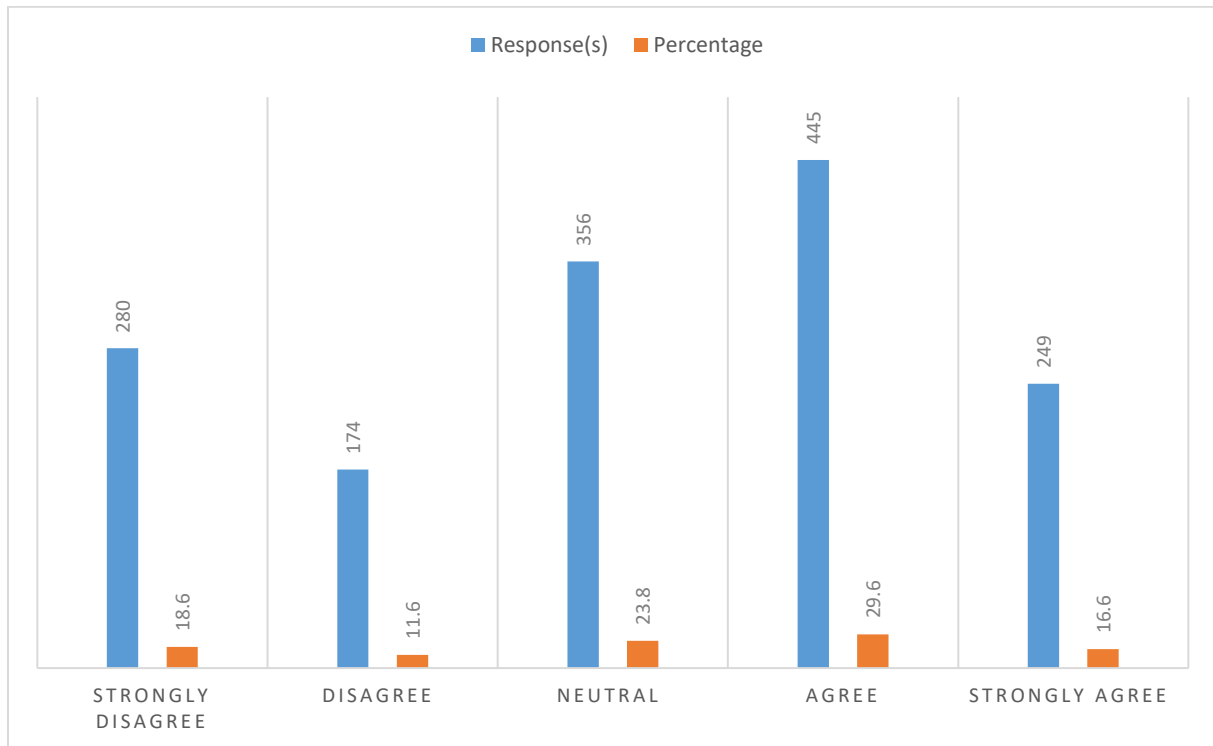


PI30. If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP.

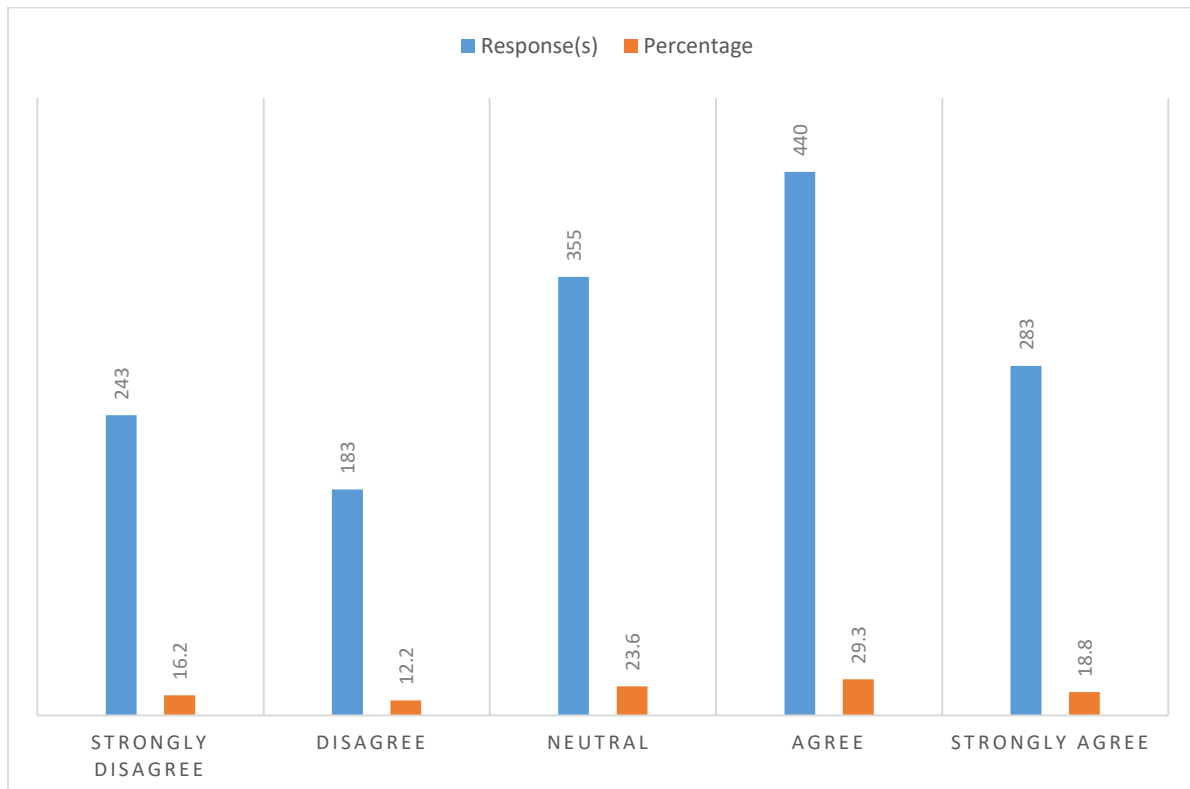


Section 6: Behavioural Intention (BI) (Customer Loyalty)

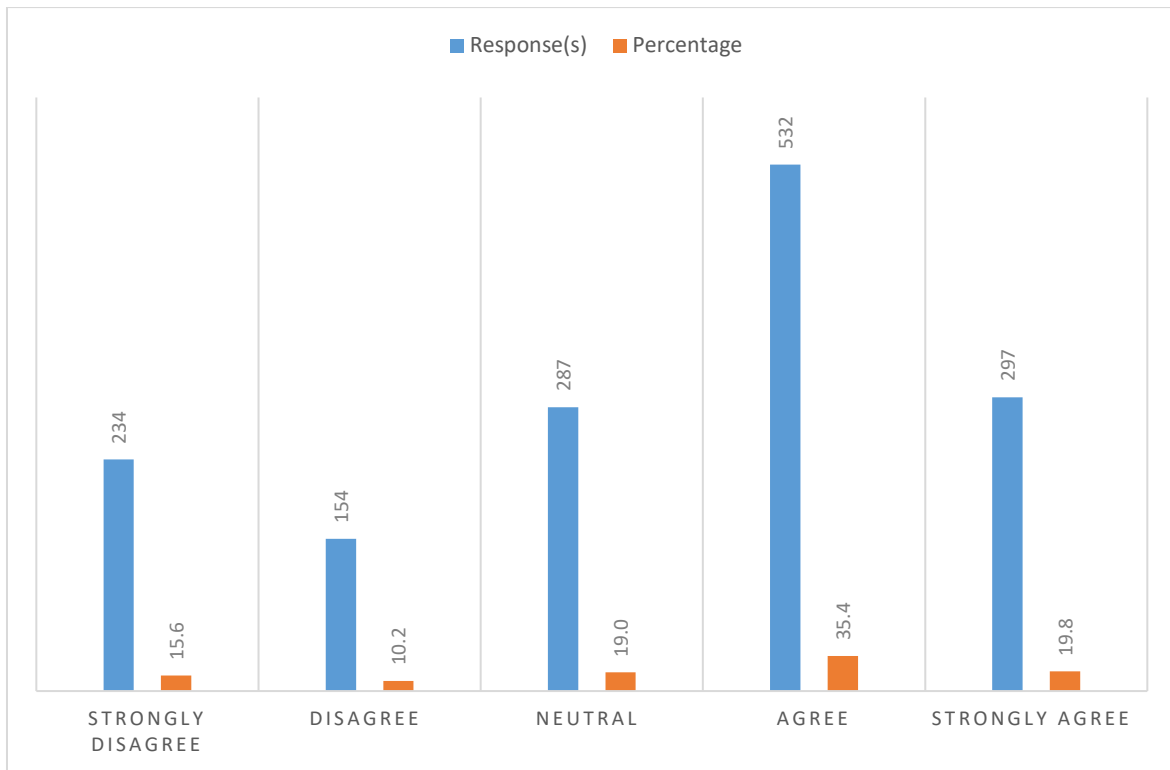
BI31. I will deal with my ISP more in future.



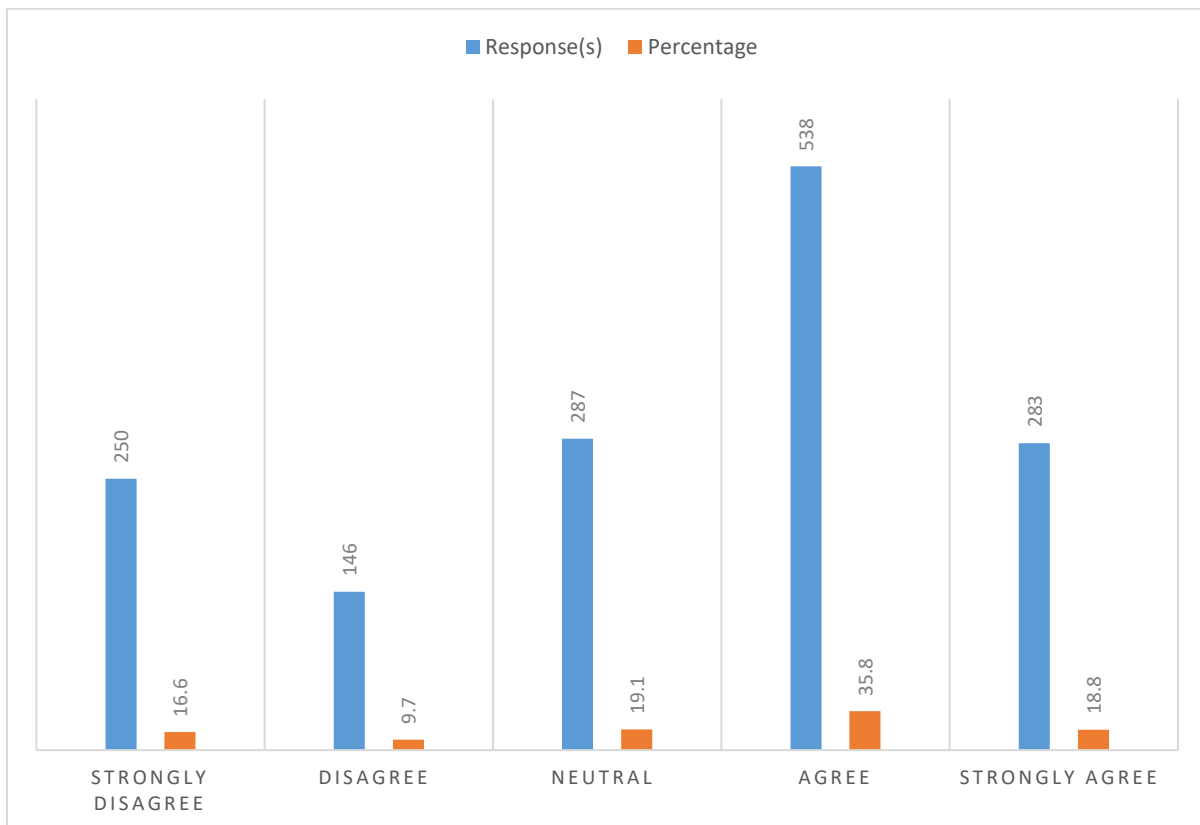
BI32. I would consider my ISP as my first choice.



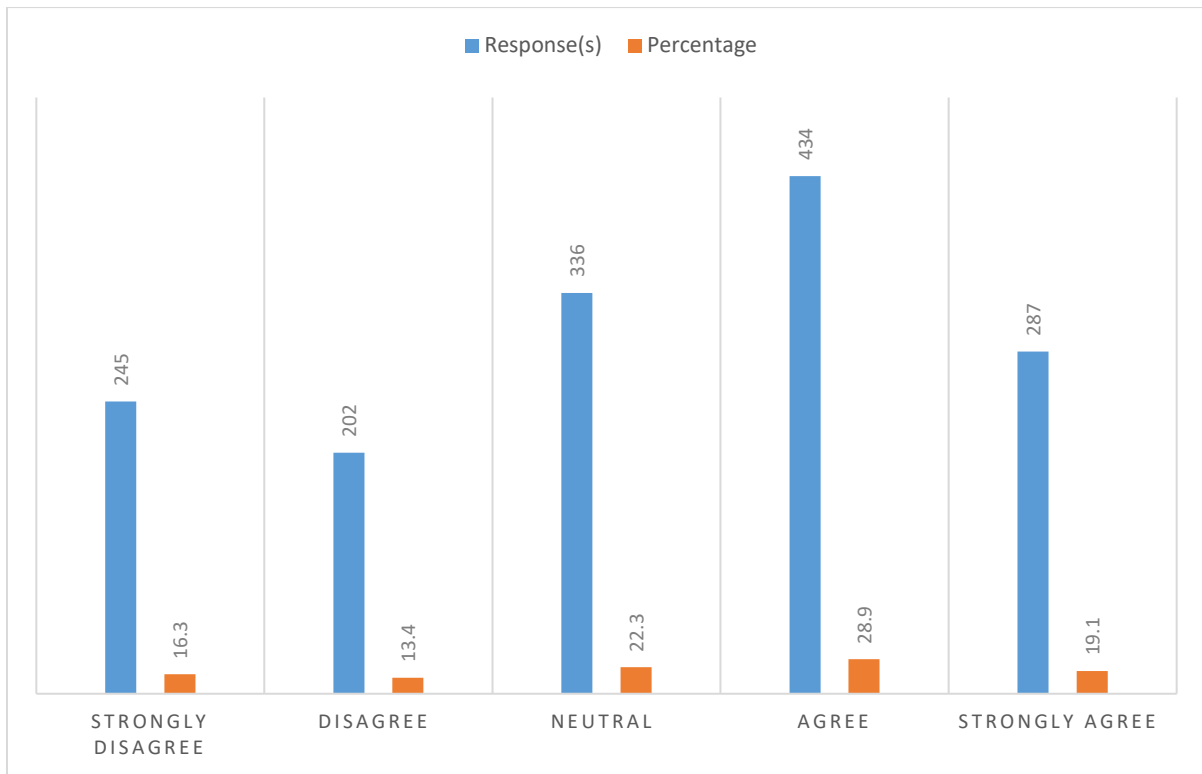
BI33. I will say favourable things about my ISP.



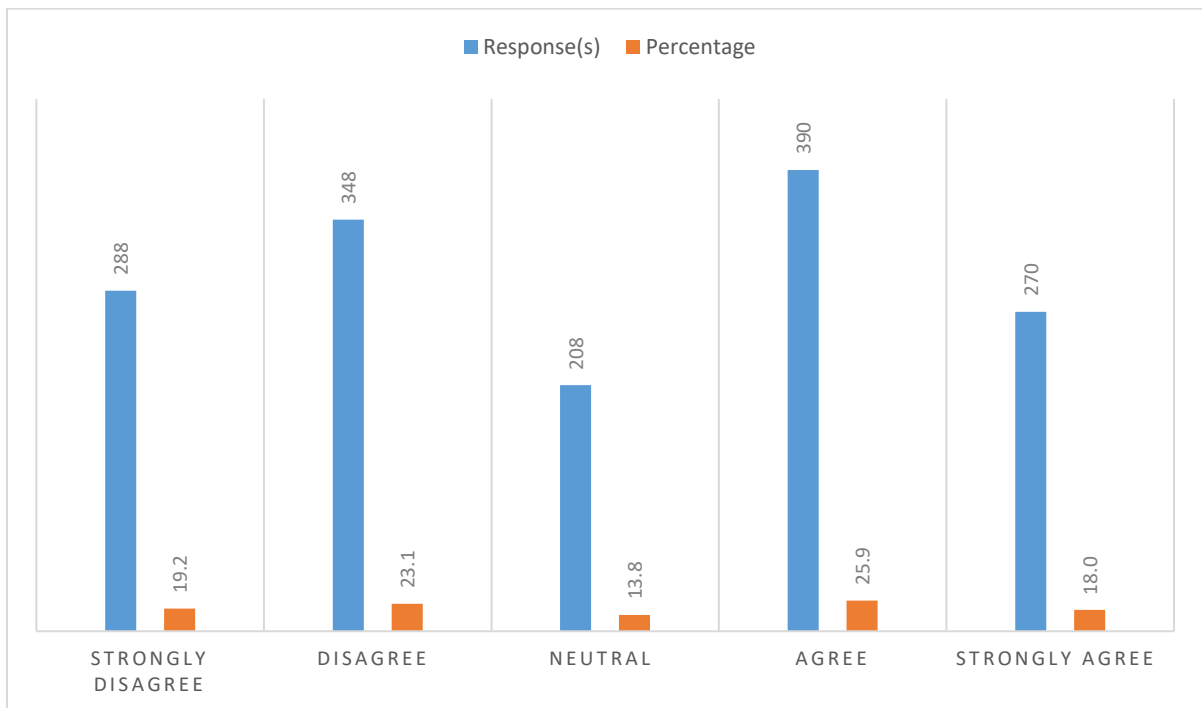
BI34. I will recommend my ISP to other people.



BI35. I will be loyal customer of my ISP.



B36. I will not switch to competitors if my ISP increases price a little.



Frequency and Percentage Distribution of Variables

Frequency and Percentage Distribution of Demographic Variables

Demographic	Frequency	Percentage
A1. Age (A)		
16-25	306	20.4
26-35	412	27.4
36-45	387	25.7
46-55	231	15.4
56 and above	168	11.2
G2. Gender (G)		
Male	750	49.1
Female	754	50.9
EB3. Educational Background (EB)		
A-level	199	13.2
HND	195	13.0
Bsc Degree	535	35.6
Master Degree	381	25.3
Doctorate Degree	194	12.9
P4. Profession (P)		
Student	231	15.4
Apprentice	193	12.8
Vocational worker	308	20.5
Public sector professional	472	31.4
Private sector professional	300	20.0
IL5. Income Level (IL)		
Less than N29,000	217	14.4
N30,000 – 59,000	173	11.5
N60,000 – N89,000	230	15.3
N90,000 – N119,000	247	16.4
N120,000 – N149,000	221	14.7
N150,000 – N179,000	149	9.9
N180,000 – N209,000	96	6.4
N210,000 – N239,000	65	4.3
N240,000 and above	106	7.1

Descriptions of Internet Service Providers' (ISPs) Service Performance

Network Quality (NQ)	Frequency	Percentage	Mean	Std.	Min	Max
			8.35	3.73	3	15
NQ6. I do not Experiencing Internet Disconnection from my ISP			2.62	1.37	1	5
<i>Strongly Disagree</i>	422	28.1				
<i>Disagree</i>	366	24.3				
<i>Neutral</i>	257	17.1				
<i>Agree</i>	281	18.7				
<i>Strongly Agree</i>	178	11.8				
NQ7. The downloading and uploading Internet Speed from my ISP meet my expectation			2.82	1.43	1	5
<i>Strongly Disagree</i>	354	23.5				
<i>Disagree</i>	344	22.9				
<i>Neutral</i>	232	15.4				
<i>Agree</i>	373	24.8				
<i>Strongly Agree</i>	201	13.4				
NQ8. Regardless of peak or off-peak hours, this does not affect my Internet Speed from my ISP			2.91	1.43	1	5
<i>Strongly Disagree</i>	352	23.4				
<i>Disagree</i>	310	20.6				
<i>Neutral</i>	200	12.3				
<i>Agree</i>	392	26.1				
<i>Strongly Agree</i>	250	16.6				
Customer Service and Technical Support (CS&TS)			9.79	3.64	3	15
CS&TS9. Customer Service Staff from my ISP are Knowledgeable			3.27	1.35	1	5
<i>Strongly Disagree</i>	270	18.0				
<i>Disagree</i>	153	10.2				
<i>Neutral</i>	242	16.1				
<i>Agree</i>	584	38.8				
<i>Strongly Agree</i>	255	16.9				
CS&TS10. Customer Service Staff from my ISP are willing to respond to enquiries			3.39	1.37	1	5
<i>Strongly Disagree</i>	252	16.8				
<i>Disagree</i>	145	9.6				
<i>Neutral</i>	205	13.6				
<i>Agree</i>	573	38.1				
<i>Strongly Agree</i>	329	21.9				
CS&TS11. There is prompt resolving of technical problems by my ISP			3.13	1.37	1	5
<i>Strongly Disagree</i>	265	17.6				
<i>Disagree</i>	259	17.2				
<i>Neutral</i>	259	17.2				
<i>Agree</i>	452	30.1				
<i>Strongly Agree</i>	269	17.9				
Information Quality (IQ)	Frequency	Percentage	Mean	Std.	Max	Min
			10.21	3.87	3	15

IQ12. My ISP provides sufficient information			3.29	1.42	1	5
<i>Strongly Disagree</i>	300	20.0				
<i>Disagree</i>	149	9.9				
<i>Neutral</i>	174	11.6				
<i>Agree</i>	574	38.2				
<i>Strongly Agree</i>	307	20.4				
IQ13. My ISP provides up-to-date information			3.41	1.37	1	5
<i>Strongly Disagree</i>	233	15.5				
<i>Disagree</i>	177	11.8				
<i>Neutral</i>	189	12.6				
<i>Agree</i>	553	36.8				
<i>Strongly Agree</i>	352	23.4				
IQ14. My ISP provides relevant information			3.51	1.37	1	5
<i>Strongly Disagree</i>	226	15.0				
<i>Disagree</i>	149	9.9				
<i>Neutral</i>	164	10.9				
<i>Agree</i>	568	37.8				
<i>Strongly Agree</i>	397	26.4				
Security and Privacy (SP)			10.38	3.96	3	15
SP15. Personal information is protected by my ISP			3.38	1.40	1	5
<i>Strongly Disagree</i>	267	17.8				
<i>Disagree</i>	136	9.0				
<i>Neutral</i>	220	14.6				
<i>Agree</i>	524	34.8				
<i>Strongly Agree</i>	357	23.7				
SP16. Financial information is protected by my ISP			3.48	1.40	1	5
<i>Strongly Disagree</i>	231	15.4				
<i>Disagree</i>	160	10.6				
<i>Neutral</i>	217	14.4				
<i>Agree</i>	452	30.1				
<i>Strongly Agree</i>	444	29.5				
SP17. Transactions with my ISP are secured			3.52	3.52	1	5
<i>Strongly Disagree</i>	235	15.6				
<i>Disagree</i>	137	9.1				
<i>Neutral</i>	194	12.9				
<i>Agree</i>	487	32.4				
<i>Strongly Agree</i>	451	30.0				

Description of Assessment of Customers Satisfaction with respect to ISPs' Service Performance

Customer Satisfaction (CS)	Frequency	Percentage	Mean	Std.	Min	Max
			12.84	4.87	4	20
CS18. My choice of my ISP is a wise one			3.25	1.36	1	5
<i>Strongly Disagree</i>	298	19.8				
<i>Disagree</i>	123	8.2				
<i>Neutral</i>	226	15.0				
<i>Agree</i>	612	40.7				
<i>Strongly Agree</i>	245	16.3				
CS19. I am satisfied with my ISP			3.21	1.35	1	5
<i>Strongly Disagree</i>	250	16.6				
<i>Disagree</i>	210	14.0				
<i>Neutral</i>	310	20.6				
<i>Agree</i>	448	29.8				
<i>Strongly Agree</i>	286	19.0				
CS20. I am pleased to use service by my ISP			3.24	1.34	1	5
<i>Strongly Disagree</i>	239	15.9				
<i>Disagree</i>	198	13.2				
<i>Neutral</i>	319	21.2				
<i>Agree</i>	456	30.3				
<i>Strongly Agree</i>	292	19.4				
CS21. Services provided by my ISP are excellent			3.14	1.37	1	5
<i>Strongly Disagree</i>	260	17.3				
<i>Disagree</i>	248	16.5				
<i>Neutral</i>	303	20.2				
<i>Agree</i>	407	27.1				
<i>Strongly Agree</i>	286	19.0				

Description of Analysis on the Influence of Internet Bandwidth on Customer Satisfaction and Behavioural Intention (Customer Loyalty).

Internet bandwidth (IB)	Frequency	Percentage	Mean	Std.	Min	Max
			14.76	6.71	5	25
IB22. The Internet bandwidth provided by my ISP for surfing the Internet meets my expectation			2.92	1.42	1	5
<i>Strongly Disagree</i>	337	22.4				
<i>Disagree</i>	319	21.2				
<i>Neutral</i>	206	13.7				
<i>Agree</i>	400	26.6				
<i>Strongly Agree</i>	242	16.1				
IB23. The Internet bandwidth provided by my ISP for streaming Videos is adequate			2.92	1.45	1	5
<i>Strongly Disagree</i>	366	24.3				
<i>Disagree</i>	287	19.1				
<i>Neutral</i>	206	13.7				
<i>Agree</i>	389	25.9				
<i>Strongly Agree</i>	256	17.0				

IB24. The Internet bandwidth obtained from my ISP makes downloading of files fast			2.97	1.47	1	5
<i>Strongly Disagree</i>	365	24.3				
<i>Disagree</i>	264	17.6				
<i>Neutral</i>	194	12.9				
<i>Agree</i>	407	27.1				
<i>Strongly Agree</i>	274	18.2				
IB25. The Internet bandwidth provided by my ISP is sufficient to making my online transaction smooth and fast.			3.02	1.47	1	5
<i>Strongly Disagree</i>	363	24.1				
<i>Disagree</i>	232	15.4				
<i>Neutral</i>	194	12.9				
<i>Agree</i>	433	28.8				
<i>Strongly Agree</i>	282	18.8				
IB26. If I notice a shortfall in bandwidth delivered to me by my ISP? I will leave my ISP for another service provider.			2.93	1.48	1	5
<i>Strongly Disagree</i>	393	26.1				
<i>Disagree</i>	244	16.2				
<i>Neutral</i>	222	14.8				
<i>Agree</i>	358	23.8				
<i>Strongly Agree</i>	287	19.1				

Descriptions of Analysis of the Influence of Prices of Internet Users' Access on Customer Satisfaction and Behavioural Intention (Customer Loyalty)

Prices of Internet Users' Access (PI)	Frequency	Percentage	Mean	Std.	Min	Max
			13.0	5.23	4	20
PI27. My ISP provides reasonable prices			3.20	1.45	1	5
<i>Strongly Disagree</i>	322	21.4				
<i>Disagree</i>	178	11.8				
<i>Neutral</i>	198	13.2				
<i>Agree</i>	482	32.1				
<i>Strongly Agree</i>	324	21.5				
PI28. My ISP provides competitive prices			3.44	1.40	1	5
<i>Strongly Disagree</i>	249	16.6				
<i>Disagree</i>	155	10.3				
<i>Neutral</i>	181	12.0				
<i>Agree</i>	525	34.9				
<i>Strongly Agree</i>	384	26.2				
PI29. My ISP provides various prices offers			3.50	1.43	1	5
<i>Strongly Disagree</i>	273	18.2				
<i>Disagree</i>	106	7.1				
<i>Neutral</i>	135	9.0				
<i>Agree</i>	575	38.2				
<i>Strongly Agree</i>	415	27.6				
PI30. If I notice that my ISP prices for services are now higher than other service providers, I will consider switching to another ISP.			3.45	1.44	1	5
<i>Strongly Disagree</i>	268	17.8				
<i>Disagree</i>	133	8.8				

<i>Neutral</i>	185	12.3				
<i>Agree</i>	490	32.6				
<i>Strongly Agree</i>	428	28.5				

Description of Assessment of Behavioural Intention with respect to ISPs' Service Performance

Behavioural Intention (BI)	Frequency	Percentage	Mean	Std.	Min	Max
			19.21	7.24	6	30
BI31. I will deal with my ISP more in future			3.14	1.34	1	5
<i>Strongly Disagree</i>	280	18.6				
<i>Disagree</i>	174	11.6				
<i>Neutral</i>	356	23.8				
<i>Agree</i>	445	29.6				
<i>Strongly Agree</i>	249	16.6				
BI32. I will consider my ISP as my first choice			3.22	1.33	1	5
<i>Strongly Disagree</i>	243	16.2				
<i>Disagree</i>	183	12.2				
<i>Neutral</i>	355	23.6				
<i>Agree</i>	440	29.3				
<i>Strongly Agree</i>	283	18.8				
BI33. I will say favourable things about my ISP			3.34	1.33	1	5
<i>Strongly Disagree</i>	234	15.6				
<i>Disagree</i>	154	10.2				
<i>Neutral</i>	287	19.0				
<i>Agree</i>	532	35.4				
<i>Strongly Agree</i>	297	19.8				
BI34. I will recommend my ISP to others			3.30	1.33	1	5
<i>Strongly Disagree</i>	250	16.6				
<i>Disagree</i>	146	9.7				
<i>Neutral</i>	287	19.1				
<i>Agree</i>	538	35.8				
<i>Strongly Agree</i>	283	18.8				
BI35. I will be a loyal customer to my ISP			3.21	1.34	1	5
<i>Strongly Disagree</i>	245	16.3				
<i>Disagree</i>	202	13.4				
<i>Neutral</i>	336	22.3				
<i>Agree</i>	434	28.9				
<i>Strongly Agree</i>	287	19.1				
BI36. I will not switch to competitors if my ISP Increases price a little			3.00	1.41	1	5
<i>Strongly Disagree</i>	288	19.2				
<i>Disagree</i>	348	23.1				
<i>Neutral</i>	208	13.8				
<i>Agree</i>	390	25.9				
<i>Strongly Agree</i>	270	18.0				

APPENDIX IX
TRANSCRIPTS FOR THE SEMI – STRUCTURED INTERVIEWS (QUALITATIVE)-
REF UEP2014SEP03 EXTENSION
INTERVIEW RESPONSE - IR1

SECTION 1

INTRODUCTION

I am 44 years old, a female and computer engineer with 15 years of job experience. A Master Degree holder. I have been using the Internet service for both personal and official activities for a period of 14 years.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your Internet Service Provider (ISP)?

RESPONSE

The service has been expensive but the Internet connection speed has been steady.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods? **RESPONSE**

It is steady and available up to 70%.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are able to handle the issues brought to them and provide service support that is requested for, promptly.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

The ISP is quite communicative with Emails, SMS and detailed information is found in their website.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I feel I am protected because there had been less cyber-attacks on my Internet services.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

I made my ISP my choice because of its availability, responsiveness and affordability.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The service can be faster but it's not bad and has a wider coverage!

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

I continue to use the ISP because there's no better one presented to me in my locality presently.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

The reliability of the ISP, and Uptime

(iii) What would be your reaction in case of just a little price increase by your ISP?

RESPONSE

I would start looking for alternative.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meets your expectation?

RESPONSE

I won't say yes or no, I will only say it is fair enough.

- (ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

Not Sure, whether I've been sabotaged or not but the service is fair.

- (i) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will switch to another ISP with better bandwidth capacity.

SECTION 6 - Prices of Internet Users' Access

Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

Prices are too high.

- (I) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

Not flexible.

- (iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will stay with my ISP, if the difference in price compared with other service providers is minimal.

INTERVIEW RESPONSE – IR2

SECTION 1

INTRODUCTION

I am an Electrical and Electronics Engineer, a male and 42 years old. A public sector employee with 15 years of job experience after having a B.Eng. Degree. I basically use the Internet for personal activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

- (i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

It has been a lot better these days say like 80% of the time it works without dropping packet.

- (ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Off peak quality is very good while peak period is bad

- (iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They have the know-how and support service is okay

- (iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are very ready to do so.

- (v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

It is well protected.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

I made the choice because they have a wide Internet connectivity coverage

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Good services and satisfactory. However, it can be better.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

They have wide coverage and service is readily available.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

Coverage, customer service response is good and readily available.

(iii) What would be your reaction in case of just a little price increase by your ISP?

RESPONSE

I will still patronize them however I will monitor my data consumption.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transactions online, meet your expectation?

RESPONSE

It meets my expectation as I have been able to use it to stream movies real time online on Netflix

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I do not have the assurance. I just use till it finishes and buy another one. Though, the service is good.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will stay with ISP but demand for the shortfall in bandwidth to be restored.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

They seem okay.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is fair enough.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will stay with my ISP, if the price increase is not much and the service is okay.

INTERVIEW RESPONSE – IR3

SECTION 1

INTRODUCTION:

I wish to introduce myself as 39 years old female, an Accountant by profession and works with the bank for about 14 years after obtaining BSc degree. I have been using the Internet for both official and personal activities for the past 11 years.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your Internet Service Provider (ISP)?

RESPONSE

The Internet connection speed has been steady but can still be better.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

It is steady both in peak and off-peak periods but sometimes during peak period the Internet connection speed could be slow.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They do attend to matters taken to them and provide support as demanded from them.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They provide information via SMS, Email services, SMS and on their website.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I cannot say precisely how well my personal, financial information and online has been protected, however, I have not experienced any cyber-attack on my Internet services.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because my ISP is the only one that has provided services that are close to my expectation.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The service provided by my ISP is stable and fast but there are still areas for improvement.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because they have continued to provide me better services.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend the ISP I use because their services are stable, fast and reliable.

(iii) What would be your reaction in case of just a little price increases by your ISP?

RESPONSE

I would still patronise them provided they still maintain better services.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It does not exactly meet my expectation but the Internet bandwidth is fair enough.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I am not sure of this whether the bandwidth is correct or not. However, the services provided by my ISP are steady and fast.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will report the issue to the ISP customer care service but if this continues by the ISP, I will consider switching to another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

Prices are moderate but there is still the need for down review of the prices.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

The price offers are not flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will consider the price difference, if the increase is not much and the service is okay, then I will remain with my ISP.

INTERVIEW RESPONSE – IR4

SECTION 1

INTRODUCTION:

I am 28 years old, a female and a public sector employee with 12 years of job experience after my HND. I have been using the Internet for personal activities for a period of 14 years.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

The Internet connection speed has improved with fast speed and less loss of service.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Most times there is not much difference of quality of service during the peak and off-peak period. However, the services could be slow sometimes during the peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are knowledgeable and support service is okay

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are well adequate to do so.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

It is well protected

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because they have a wide Internet connectivity coverage

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Good services, which are satisfactory. However, it can be better.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

They have wide connectivity coverage with service that is readily available.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I recommend my ISP for its wide connectivity network coverage; customer service response is good and readily available.

(iii) What would be your reaction in case of just a little price increase by your ISP?

RESPONSE

I will still patronize them provided the service is still satisfactory.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It meets my expectation as I have been able to use it to stream videos online.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I have that assurance because it lasts long and speed is fast.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If this persists, I will look for another ISP with better service quality.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

They seem okay.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is fair enough.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will migrate to a cheaper ISP with good services.

INTERVIEW RESPONSE – IR5

SECTION 1

INTRODUCTION

I am 30 years old, a male and a secondary school teacher. I have been using Internet service for over 9 years for social and academic activities. I have a Bachelor in Education, Business Studies.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

I have been experiencing much better Internet connection speed nowadays with much lesser loss of services.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

I experience better quality of service during the off-peak period compared to the peak time and sometimes, service could be slow and of poor quality during peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

Their support service is alright.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

My ISP is ever available to provide adequate, relevant and latest information to their customers.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

My personal and financial information are adequately protected by my ISP.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

They seem to have a wider Internet network connectivity coverage

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

They provide better services compared to others I have patronized in the past.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

They provide good quality services and their services are readily available.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

Wide network coverage, good customer care service and availability of services.

(iii) What would be your reaction in case of just a little price increases by your ISP?

RESPONSE

I will still continue my patronage with them provided they continue to provide better services. But if further increase in price occurs, I will have to consider whether to switch to another ISP with good services.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

For now, I have been able to surf, download files and stream movies with little or no difficulty.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I can't say much about this because I don't have any instrument to measure this. But sometime I observed that my bandwidth got exhausted quickly even when the usage is less.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will wait for some time but if this does not stop, I will look for another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It seems expensive.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is fair.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

Since I feel that price of Internet access is already expensive for me, I will just change to a cheaper ISP that also have good services.

INTERVIEW RESPONSE – IR6

SECTION 1

INTRODUCTION

I am 32 years old, a female and a public servant. I have been using Internet service for over 10 years for social and academic activities. I have a BSc in Sociology.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

Internet connection is a good innovation that has assisted the human race in recent time, my experience with my ISP has been a great one, as this has helped me in many aspects of my life which includes education, social and culturally, my service provider MTN provides a good service especially in speed connection.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

The quality of the Internet service is not customer satisfactory, slow in speed, and service fluctuating, only few of the ISP have been able to provide or satisfy customers with the required Internet speed.

Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are knowledgeable and very willing to assist. They are always ready to respond to complaints and provide the necessary solutions.

(iii) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

Just a call across to my ISP, I will be appreciated for using their services, then I will be asked to come for an upgrade in their office for better services.

(iv) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

Very well by asking me not to release my personal/private information to anyone, also sending text messages to be aware of fraudulent acts such as asking for verification of codes for financial transactions.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because I see their services better than other ISPs' services.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

It is Great!

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Their service remains the best to me.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend to others about my ISP on cost of service and stability of network connectivity.

(iii) What would be your reaction in case of a little price increase by your ISP?

RESPONSE

I will feel bad because the economic as at now is not too friendly. However, I will remain with my ISP provided I am getting better services from them since it is a little price increase.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

My expectation is not really met because at times surfing and downloading of files and streaming of videos as well as transaction online could be slow and frustrating.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I can't say have any assurance that my ISP provides the correct Internet bandwidth I subscribe for. Because at times I discover that the bandwidth I subscribed for just finished before the expected date of finishing and I am not always happy about this.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will demand for my shortfall in bandwidth and if this issue did not stop, I will have to look elsewhere for Internet service.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

Not too good, based on the economic situation the country is currently facing.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

Options make it more flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will consider switching to another service provider that is cheaper and also has good services.

INTERVIEW RESPONSE – IR7

SECTION 1

INTRODUCTION

I am 35 years old, a female and a public servant. I have been using Internet for about 12 years for social and official activities. I hold a Bachelor Degree in Public Administration.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

Connection speed is relatively fast, loss of services is for a short while

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

My ISP has quality and satisfactory services but sometime poor during peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

Knowledgeable enough to attend to my immediate Internet problems.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

It is 100%

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

My ISP needs to show more loyalty to customers by providing good security protection.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

My choice of ISP is because they are very reliable and their Internet is very fast.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

It is good.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

The Internet service is fast and reliable.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

My present ISP provides better services compared to other service providers I have used before.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

Normal as long as there is a prior information or announcement or jingles before the increment, I will still stay with my ISP.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

Yes, to some extent, I am able to surf the Internet without interruption, download files and stream video with a good bandwidth facility but sometimes the quality service could be poor especially during peak period.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

Nothing gives me the assurance. Though I believe their service is alright.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I give my ISP a benefit of doubt and study them for sometimes, if there is no change in the shortfall in bandwidth, I will have to consider switching to another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

Good in as much my ISP notify before any planned upgrade in prices or tariffs

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

Flexible enough to accommodate routing for other options in prices or offers

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will check to see if the price difference is what I can accommodate with respect to the good service being provided. Otherwise, I will likely consider switching to a cheaper network provider.

INTERVIEW RESPONSE – IR8

SECTION 1

INTRODUCTION

I am 27 years old, a male and works with a government agency. I have been using Internet service for about 9 years for social, official and academic activities. A Higher National Diploma Holder.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

Both connection speed and service loss are at equilibrium. I mean both the Internet speed and loss of services are at the same level.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

The services are satisfactory but once in a while the service could be slow during the peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are usually knowledgeable on their products, services and support on request.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are usually up to date giving relevant information on request.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

Personal information and online transactions are strictly protected.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Quality services delivery

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Satisfactory

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because my ISP provides better quality service and is the current leading ISP.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend that they provide quality services.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

If the quality increases with the price, but if not, I will switch to another.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It's fast and reliable but consumes excess data.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

No assurance even though there always a way to verify and check subscription or balance.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will tolerate my ISP for sometime, if there is no change in the shortfall in bandwidth, I will have to look for another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

The charges are mostly high to purchase Internet service.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

The price offers are fairly flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will consider changing to a cheaper ISP with the same good services.

INTERVIEW RESPONSE – IR9

SECTION 1

INTRODUCTION

I am 38 years old, a female and a public servant. I have been using Internet service for about 13 years for social and official activities. I hold a Bachelor Degree in Chemical Engineering.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

So annoying when dealing with internet problems, when you are trying to get your job done, waiting an hour for a video to download, staring at a blank screen while it loads at a glacial pace or having an important call with a client drop, is not just frustrating it can seriously harm your business

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Falling off steadily throughout the day with a modest levelling of between 7pm to 10pm, which mostly appear to be off-peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They go extra mile in providing support, always positive and showing of respect.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They provide up to date, relevant information regularly.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I believe my information and online transactions are well protected.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

I made my ISP my choice because their services are more reliable.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The connection speed could be fast, it is also available most of the time.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

I will continue to use my present ISP because their services are still better.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend that they could be reliable and they are also available.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I believe increases in price should be communicated to customers before it is done.

However, if their services are commensurate with the increase, I will stay with them.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It is satisfactory to some extent.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I have no assurance; I just use the Internet services. The service is okay to some extent.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I may not bother much if I can still surf the Internet, stream video and do online transactions without difficulty. Otherwise, I will react by considering to move to another service provider.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

The tariff is expensive to access the Internet service.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

Well, the flexibility of price offers is fair.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will consider moving to another cheaper ISP that also have nice services.

INTERVIEW RESPONSE – IR10

SECTION 1

INTRODUCTION

I am 32 years old, a male and I work with a private organisation. I have been using internet service for about 14 years for social and official activities. I hold Higher National Diploma in Computer Science and I am also an ICT professional.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

For the Network Provider I'm using; for about two years now I have not experience bad network from my service provider, so I can say their speed is good while I have not had any problem for loss of services.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

The quality of their service is good during both the peak and off-peak periods.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are knowledgeable enough since their service is always up and running. They do assist me on service support, whenever I call.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

I can give them 85%.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I believe my ISP follow the standard and regulation to keep personal and financial information safe and protected; I have never had any issue on this.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

They are everywhere you go.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

I'm happy with their services.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because they are always available.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

To go and buy their sim and other services for their quality services.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

If it is relevant, I will accept it but if not, I will not be happy but will still use their network.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

They have different options to buy, so you can go for the one you are capable of buying and the services are satisfactory.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I do monitor my consumption of the bandwidth.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If this affected my surfing and streaming of videos on the net, I will consider looking for another service provider.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is a bit high.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

I would say it is 75% flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will look elsewhere for another ISP that has cheap good services.

INTERVIEW RESPONSE – IR11

SECTION 1

INTRODUCTION

I am 36 years old, a male, an IT personnel and works in a private organisation. I have been using Internet service for about 15 years for social, academic and official activities. I have a Bachelor Degree in Computer Engineering.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

With 4G the Internet connectivity is fair enough.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods? **RESPONSE**

The speed is reduced during the peak period and increased during the off-peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They have a good customer care relationship and provide service support when needed.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

It is quite poor.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I feel they do protect well my information and transactions.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Happened to be the most preferred one in terms of service quality.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

It is relatively okay. But the services rendered some days could be frustrating.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Amongst other ISPs, they stand out much preferred.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

For their performance I will recommend them to others.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

Provided the quality of the service will be improved, then I can bear with the little increase.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

The bandwidth is absolutely poor for large files downloading and video streaming.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

Best to my knowledge they do not provide the required/desired bandwidth I subscribed for.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will observe for sometime and if no amendment, I will be looking at other service providers.

SECTION 6 - Prices of Internet Users' Access.

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

I feel much is needed for them to do in forms of quality of service in order to justify the prices and tariffs they charge users. However, their prices seem expensive.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

The price flexibility is quite commendable, giving room to various classes of subscribers.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will go to another service provider with nice services too.

INTERVIEW RESPONSE – IR12

SECTION 1

INTRODUCTION

I am an undergraduate female student of History and International Relations, 19 years of age. I have been using Internet service for the past 7 years for social and academic activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

In Campus, both Internet connection speed and loss of service of my ISP is often slow, due to the location and the far distance of the school to town. There can be loss of service for a whole day.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

The Internet service is very poor during the peak but could be fair during off-peak periods.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are quite effective if you go through the right process.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are efficient with up-to-date information to customers. No slacking.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

Just average. They can do better.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

My ISP is easy going and they've put in work to make some things easy for customers, for example the NIN registration.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The service provided is adequate.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

To be honest, my ISP is very ok for me and I'll use them again and again, the only problem is at campus and this is due to the location of the campus as it is at the outskirts of the city.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

They are efficient and up to date.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I would carry on with it if I'm capable.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

Near to perfect, at times for transaction online the only problem can be from the bank itself.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

It's hasn't disappointed yet.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If the shortfall in bandwidth continues, I will change to another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It's is okay.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

They range from different prices and packages so you'll get what you're able to.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will observe for sometime and if I see another ISP that has cheap good services, I will switch to it.

INTERVIEW RESPONSE – IR13

SECTION 1

INTRODUCTION

I am 35 years old, a female, an IT personnel and works in a public organisation. I have been using Internet service for about 13 years for social, academic and official activities. I have a Bachelor Degree in Computer Science.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

The Internet connection speed is fast and loss of service is once in a while.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

During the peak the quality is good during the off-peak the service is also good.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are moderate in their knowledge.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

I will say about 70 percent.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

It has been moderate.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

It's the most stable and affordable ISP.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

I feel it is moderate because it gets the work done but not efficiently.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because they are still the best compared to other ISPs despite their shortcomings.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

Fair services and affordable

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will be sad due to the average service they provide.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

I will say it is about 90%.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I can't say yes or no that I have the assurance but the speed of the Internet is fast, steady and reliable.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will switch to another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is fair.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is not so flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I wait for a while and if I discover another ISP with nice services and at cheaper rate, I will be forced to shift my base.

INTERVIEW RESPONSE – IR14

SECTION 1

INTRODUCTION

I am 46 years old, a female and have Post Graduate Diploma in Conflict Resolution. I work in a public organisation. I have been using Internet service for about 16 years for social, academic and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

The performance of the Internet is rated by me as being average.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

The performance is fair during off-peak period but fluctuating at peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

The ISP's staff are well knowledgeable and are ready to assist, and they provide service support to their customers when they are asked to do so.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are good in providing adequate, relevant and up to date information to their customers.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I will say it is okay because I have not had any incident of my information and online transactions being hacked.

SECTION 3 - Customer Satisfaction

(I) Describe why you made your ISP your choice?

RESPONSE

I see my present ISP as the one that is close to meeting my expectation.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The services are fair but there is still much room for improvement.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because my ISP's services are fair enough.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend that the services of my ISP are fair enough than others.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will stay with my ISP provided the service is improved, otherwise, I will be forced to look for other services that may seem better and cheaper.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE.

It is fair enough

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I cannot give any assurance; however, I tried to study the duration of the present subscription and compare it with previous subscriptions and found that it is fair.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will look for another ISP and switch to them.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

The price is moderate.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

The prices are flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

If price is much higher, I will look elsewhere and move to another ISP with good services and is also less expensive.

INTERVIEW RESPONSE – IR15

SECTION 1

INTRODUCTION

I am 40 years old, a male and a Master Degree Holder. I work with a private organisation. I have been using Internet service for about 15 years for social, academic and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

My ISP Internet service works perfectly. I do have a positive experience.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Good quality during peak and off-peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

The staff of my ISP are knowledgeable and very willing to assist and provide service support to customers.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

My ISP always provide adequate information, relevant and up to date information to their customers.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I feel my ISP protects well my personal and finance information since I have not experienced any issue on this.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because they provide good quality of service.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

I feel very great about the services I obtain from my ISP.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because of the good services that are provided by my ISP.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend my ISP for the good services they provide.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

No reaction, provided I receive the required services.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

I am able to surf the Internet and download files at ease. I am also able to stream videos and do online transaction without much difficulty.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I cannot give assurance precisely, however, duration of subscription often last as expected.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will remain with the ISP for now, provided this does not affect the services much.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

I feel it is normal.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is very flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will stay for a while and check, If I found out that there is another ISP with nice service and is less expensive, then I will take my leave.

INTERVIEW RESPONSE – IR16

SECTION 1

INTRODUCTION

I am 48 years old, a male and a Higher National Diploma Holder. I work with a public organisation. I have been using Internet service for about 14 years for social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

The service is good, though fluctuating at times.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

It is relatively stable for but both peak and off-peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

My ISP's staff are knowledgeable and always helpful.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

My ISP is effective in providing adequate, relevant and up to date information to customers.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

So far, it's been very good.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because my ISP's services are cost effective and of good or better service quality.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The services provided by ISP are very good.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because the services provided by my ISP are good and efficient.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend low-cost efficiency and good Internet speed.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

It will be okay by me if the quality of service remains the good.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

The bandwidth is very good.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I can't say precisely. But I haven't experienced any service disruption when surfing on the net or downloading file, so I believe the bandwidth is okay.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will remain with the ISP for now, provided this does not affect the services much.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is affordable.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is very flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will check for another ISP that has cheap nice services.

INTERVIEW RESPONSE – IR17

SECTION 1

INTRODUCTION

I am 44 years old, a female and a Bachelor Degree holder with 16 years of experience as a Secondary School Teacher. I have been using Internet service since its emergence for social, academic and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

The service is good but sometimes, it could be poor.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Poor during peak and a little better after work hours or off-peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are well knowledgeable and readily available to assist and support services.

(iii) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are very adequate in providing relevant and up to date information.

(iv) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I feel it is fair.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

It is my personal decision. However, I felt that my ISP services are better.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Their services are fair in my own opinion.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

It is also on a personal decision. But I felt I am getting better services compared to other previous ISPs I have used before now.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend that my present ISP services are fair enough for them to patronise.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will feel bad because the quality sometimes is not very good.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

The Internet bandwidth is fair and there is need for improvement.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I do not have assurance.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If I notice that my ISP is not providing me the correct bandwidth, I will opt out of the ISP and look for another where the bandwidth provision is better.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

The price is very high to me

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is fairly flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will change to another ISP that is not too expensive as my present one and that also have good services.

INTERVIEW RESPONSE – IR18

SECTION 1

INTRODUCTION

I am 36 years old, a male and a MSc Holder. I'm a Mathematician by profession and I work with a public organisation. I have been using Internet service for about 15 years for social, academic and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

As per my ISP, the connection speed is good and down time is a bit manageable, sometimes frustrating.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

During the peak period the service is okay while off-peak is very good.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are very accommodating and knowledgeable enough to assist at any time.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are very efficient in communicating with their customer, adverts on televisions and radio gives publicity to their networks.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

Actually, I don't know the level of security put in place in terms of software security, network security and system management, so far, my financial transactions have been so safe.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because my ISP provides good services

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

My service provider has been so good for some time now, but there is room for better services.

SECTION 4 – Behavioural Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because, comparing with other networks. It's still the best among others for now.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend that the service is good, reliable and affordable.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will stay but I will reduce the amount of data I usually subscribe for.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It's very ok (good) for now and satisfactory.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

The time rate in opening a page when browsing, surfing the Internet compared to other networks is better and satisfactory

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If it does not meet my demand, I will be forced to consider another service provider with better bandwidth capacity.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It's affordable

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It's flexible

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will lookout for another ISP that is less expensive and has good services.

INTERVIEW RESPONSE – IR19

SECTION 1

INTRODUCTION

I am 38 years old, a female and a Higher National Diploma Holder. I work with a public organisation. I have been using Internet service for about 12 years for social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(I) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

My ISP network for Internet connection is excellent within city centre but poor at the outskirts of the city.

Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Reasonably good at both off-peak and peak period, sometimes be poor at peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

Knowledgeable and willing to assist.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

Very adequate and relevant

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I have no idea on how they protect customer's personal and financial information.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Availability, coverage and ease of subscription.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

My ISP network which is 4G is reasonably good within city centre but diminishes as one move away from the city centre.

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because of its wide coverage and ease of accessibility.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

It's wide coverage.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will migrate to a cheaper/affordable service provider

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It is satisfactory.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I am not sure whether it is correct or not but the service is satisfactory.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will have to migrate to another service provider with good bandwidth capacity.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is expensive.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will migrate to another ISP that is less expensive with good services.

Interview Response – IR20

SECTION 1

INTRODUCTION

I am 37 years old, a male and a Bachelor Degree Holder. I work with a private organisation. I have been using Internet service for about 11 years for academic, social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

Fairly good, but sometimes the connection speed is poor.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

Poor during peak period and better after work hours.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are well knowledgeable and provide service support when I made request.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are very adequate in providing relevant and up to date information to customers.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

I feel it is well protected because I have not had any problem on this.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Because their service is available and has a wider coverage.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

The service is fair or average performance.

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

Because, their service is presently the best to me.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend their availability and wider coverage.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

It would be okay by me, provided they also increase their services.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It does not meet expectation; bandwidth is slow except during off-peak periods.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I don't have any assurance; I just subscribe and use, until it is exhausted, but service is fair.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will look for another ISP with good bandwidth facility.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

Very high data charges.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

Not too flexible, charges need to be lowered

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will just change to another ISP that is cheaper and also having nice services.

INTERVIEW RESPONSE – IR21

SECTION 1

INTRODUCTION

I am 34 years old, a male and a Bachelor Degree in Civil Engineering with 8 years working experience. I work with a private organisation. I have been using Internet service for about 9 years for personal and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

My ISP 4G Network connection speed is excellent, the network at times can be very bad, service network failure is not always.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

At times the service could be poor during the peak period but it is okay during off-peak and peak periods.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

Manageable and ready to assist in handling network problems.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

Efficient in awareness creation/sales promotion through Service Codes, SMS, Calls, Television and Telecom Services.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

Being an Internet user, the measures put in place to protect my personal and financial information is by checking credit balance and data balance, other measures are not known to me.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

I made it my choice because in the past, it was the network that existed in my community and enabled free night calls.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Good but vary in strength from one location to another or community to community or town to town

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

I continued to use it because: it is common, runs a data bonus that is unlimited

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

Relative network stability; Data bonus on subscription; Sale phone made by the ISP.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

Abandon the ISP and switch over to another network that is cost effective and more serviceable

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

Adequate/satisfactory for now with level of technological advancement.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

This is because timely surfing of Internet: uploading and downloading of files and records are fast and better.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will switch to another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

Very challenging and so high, there is need for reduction.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE: It is very flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will patronise another ISP that is less expensive and with reasonably good services.

INTERVIEW RESPONSE – IR22

SECTION 1

INTRODUCTION

I am 42 years old, a male and a Bachelor Degree holder with 10 years of experience as an employee in one of the IT companies in Abuja. I have been using the internet for over 16 years for social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

The ISP I'm using has 4G NETWORK, which the speed is good, but at times there could be disruption on the network.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

At peak period the speed is okay but could be poor sometimes while at off peak the speed is very okay.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are very knowledgeable and able to provide service support when it is demanded for.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They are good in advert and promotion through all the available channels.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

They are good for now, because my account has not been hacked.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

I met them because I have no option, all the ISPs in Nigeria are almost the same.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Sometime good while some time is bad

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

I feel I get faster and cheaper services from my ISP.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend that they have the wider network coverage in the country.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

It will really hurt me.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

For now, it does not meet my expectation.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

They have not provided the bandwidth that I want, I am managing with them because of their wider coverage.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If my ISP continues this way, I have no other choice than to migrate to another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is very high, when I compare it with other countries.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

The prices are fixed in such a way that they will favour the ISP.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will move to another ISP that has better price with relatively good services.

INTERVIEW RESPONSE – IR23

SECTION 1

INTRODUCTION

I am 33 years old, a male and a Bachelor Degree Holder. I'm also geographic information system expert and works with a public organisation. I have been using Internet service for about 14 years for academic, social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

My ISP 4G connections speed is excellent but downtime can be frustrating.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods? **RESPONSE**

The peak period is good but at times the connection speed can be poor while off-peak is okay

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

Very knowledgeable and ready to assist in resolving issues.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

Very efficient in reaching their customers through, radio/television jingles, bill boards, text message, social media, dedicated numbers online.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

As an Internet user, I don't know the measures put in place to protect my personal information and financial transactions. But my personal information and financial transactions have been safe.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

My ISP services seem to be better than others.

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

Good but can be better

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

It's the best for now.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

Fast browsing speed.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will reduce the amount of data I use to subscribe.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It is very adequate and satisfactory.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

Because surfing of Internet, uploading and downloading of files is very fast.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

If my ISP has shortfall in bandwidth, I make complaint for necessary adjustment. If it continues, I will consider migrating to another network, if it is absolutely necessary.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is affordable.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is reasonably flexible.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will migrate to another service provider that is cost effective.

INTERVIEW RESPONSE – IR24

SECTION 1

INTRODUCTION

I am 37 years old, a female with BSc in Computer Science. I work with a public organisation. I have been using Internet service for about 15 years for academic, social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

It is moderate but their performance needs improvement.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

During peak period, it is moderate and off-peak period is very fast

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

Their response time when contacted is fast

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They provide adequate, relevant and update information promptly.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

It is moderate.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

Internet service is better than the previous ISP

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

It is better.

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

They have good speed Internet connectivity.

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

Their service is good and connection speed is fast.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will react by making my complaint known to them.

SECTION 5– Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It does not meet my expectation.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I have no means of verifying whether the bandwidth is correct or not but the service is fair

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will make complaint for amendment. If nothing is done, I wil leave for another ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

It is high.

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

Flexible in the sense that different bandwidths with their costs are being provided.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will just leave for another service provider that is not too expensive.

INTERVIEW RESPONSE – IR25

SECTION 1

INTRODUCTION

I am 41 years old, a female and a Bachelor Degree Holder. I work with a public organisation and have been using Internet service for about 10 years for academic, social and official activities.

SECTION 2 - Internet Service Providers' (ISPs) Performance Quality

(i) Describe your experience with Internet connection speed and loss of services of your ISP?

RESPONSE

It is fair but sometimes not satisfactory especially when streaming videos.

(ii) Describe the quality of Internet services of your ISP during the peak and off-peak periods?

RESPONSE

The quality is good during off-peak and peak period but could be poor sometimes during peak period.

(iii) Can you describe how knowledgeable is your ISP's staff and how willing are they to assist and provide service support on demands?

RESPONSE

They are quite knowledgeable, but getting them on phone at time may be difficult.

(iv) To what extent does your ISP possess the quality to provide adequate, relevant and up to date information to customer?

RESPONSE

They provide adequate and up to date information to customers.

(v) How well does your ISP protect your personal and financial information as well as your on-line transactions?

RESPONSE

Not sure, but I have never been hacked.

SECTION 3 - Customer Satisfaction

(i) Describe why you made your ISP your choice?

RESPONSE

It is the most common (i.e., availability)

(ii) Describe how you feel about the services provided by your ISP?

RESPONSE

It is satisfactory.

SECTION 4 – Behavioral Intention (Customer Loyalty)

(i) Can you describe why you continue to use your ISP as your best choice?

RESPONSE

The service is good and it is the cheapest of the available ones

(ii) Describe what you will recommend about your ISP to others?

RESPONSE

I will recommend the fast speed.

(iii) What would be your reaction in case of a little price increases by your ISP?

RESPONSE

I will compare with others and if it is not favourable I will seek for another ISP with cheaper price and good services.

SECTION 5 – Internet Bandwidth

(i) How would you describe that the Internet bandwidth provided by your ISP for surfing and downloading of files, streaming of videos and transaction online, meet your expectation?

RESPONSE

It does not meet my expectation.

(ii) What gives you the assurance that your ISP provides the correct Internet bandwidth you always subscribe for?

RESPONSE

I am not sure they do. However, the service is still okay even though it has not met my expectation.

(iii) What would be your reaction if you notice a shortfall in bandwidth delivered to you by your ISP?

RESPONSE

I will look for alternative ISP.

SECTION 6 - Prices of Internet Users' Access

(i) Describe how you feel about the prices or tariffs for Internet users' access offered by your ISP?

RESPONSE

They are expensive

(ii) Describe how flexible are price offers by your ISP for Internet users' access?

RESPONSE

It is flexible to some extent.

(iii) What would be your reaction, if you notice that your ISP prices for services are now higher than other service providers?

RESPONSE

I will change to alternative service provider with cheaper rate.

APPENDIX X

Table 1: Interview Respondents (IR) Profile

Code	Background of respondent	Gender
IR1	IR1 is 44 years old, a Master's Degree who works in public sector as a computer engineer with 15 years job experience. She has been using Internet services for personal and official activities for 14 years.	Female
IR2	IR2 is 42 years old, an Electrical and Electronics Engineer who is a public sector employee with 15 years job experience after his B.Eng. Degree. He uses the Internet for personal activities.	Male
IR3	IR3 is 39 years old, an Accountant who works with the bank for about 14 years after her BSc Degree. She has been using the Internet for official and personal activities for 11 years.	Female
IR4	IR4 is 28 years old, she is a public sector employee with 12 years job experience after her Higher National Diploma (HND). She has been using the Internet for personal activities for 14 years.	Female
IR5	IR5 is 30 years old, a secondary school tutor and a Bachelor Degree holder in Business Studies (Education). He has been using Internet service for 9 years for social and academic activities.	Male
IR6	IR6 is 32 years old, a public servant with BSc in Sociology. He has been using Internet service for over 10 years for social and academic activities.	Male
IR7	IR7 is 35 years old, a public servant with Bachelor Degree in Public Administration. She has been using the Internet for about 12 years for social and official activities.	Female
IR8	IR8 is 27 years old, he is a HND Holder who works with a government agency. He has been using the Internet service for about 9 years for social, official and academic activities.	Male
IR9	IR9 is 38 years old, a public servant with a Bachelor Degree in Chemical Engineering. She has been using the Internet service for about 13 years for social and official activities.	Female
IR10	IR10 is 32 years old, a private sector employee with HND in Computer Science. He has been using Internet service for social and official activities for 14 years	Male
IR11	IR11 is 36 years old, he is an IT personnel with a Bachelor Degree in Computer Engineering. He works with private organisation and has been using the Internet service for about 15 years for social, academic and official activities.	Male
IR12	IR12 is 19 years old, an undergraduate student of History and International Relations. She has been using the Internet service for the past 7 years for social and academic activities.	Female
IR13	IR13 is 35 years old, she is an IT personnel with Bachelor Degree in Computer Science. She works with a public organisation and has been using the Internet service for about 13 years for social, academic and official activities.	Female
IR14	IR14 is 46 years old, she is a public sector employee with Post Graduate Diploma in Conflict Resolution. She has been using the Internet service for about 16 years for social, academic and official activities.	Female
IR15	IR15 is 40 years old, he is private sector employee with a Master's Degree. He has been using the Internet for social, academic and official	Male

	activities for 15 years.	
IR16	IR16 is 48 years old, a HND holder and a public sector employee who has been using the Internet service for social and official activities for 14 years.	Male
IR17	IR17 is 44 years old, a Bachelor Degree holder and a Secondary School Teacher with 16 years' experience who has been using Internet service since its emergence for social, academic and official activities.	Female
IR18	IR18 is 36 years old, he is a public sector employee with MSc Degree. He is a mathematician and has been using Internet service for about 15 years for social, academic and official activities.	Male
IR19	IR19 is 38 years old, a HND holder who works with public organisation. She has been using the Internet for social and personal activities for 12 years.	Female
IR20	IR20 is 37 years old, he is private sector employee with a Bachelor Degree. He has been using the Internet for about 11 years for academic, social and official activities.	Male
IR21	IR21 is 34 years old, he is a private sector employee with 8 years working experience after his Bachelor Degree in Civil Engineering. He has been using the Internet for personal and official activities for 9 years.	Male
IR22	IR22 is 42 years old, he is a Bachelor degree holder with 10 years job experience in an IT company in Abuja. He has been using the Internet for over 16 years for social and official activities.	Male
IR23	IR23 is 33 years old, he is a geographic information system expert who works with a public organisation. He is a Bachelor Degree Holder and has been using the Internet service for 14 years for academic, social and official activities.	Male
IR24	IR24 is 37 years old, she is public sector employee with BSc in Information Technology. she has been using Internet service for 15 years for academic, social and academic activities.	Female
IR25	IR25 is 41 years old, a public sector employee with Bachelor Degree who has been using the Internet for academic, social and official activities for 10 years.	Female

Table 2: Coding Frame for the Analysis of Semi-Structured Interviews Relating to ISPs' Service Performance

Participant	Data extract	Initial code	Theme	Main theme/Category
	Response to Question (i)			
IR3, IR4, IR5, IR7, IR10, IR13, IR15	<i>I have been experiencing much better Internet connection speed nowadays with much lesser loss of services (Participant IR5).</i>	Improving Internet speed Loss of service less frequent	Improved network quality Improved network quality	ISP's service performance is satisfactory/good
IR1, IR2, IR6, IR16, IR17, IR18, IR19, IR21, IR22, IR23	<i>The service is good, though fluctuating at times (Participant IR16).</i>	Good service but fluctuating speed	Network quality satisfactory	ISPs' service performance is satisfactory/good

Response to Question (ii)				
IR1, IR10, IR13, IR15, IR16, IR18,	<i>The quality of their service is good during both the peak and off-peak periods (Participant IR10).</i>	Good service both peak and off-peak periods	Network quality satisfactory	ISPs' service performance is satisfactory/good
IR3, IR4, IR7, IR8, IR19, IR21, IR22, IR23, IR25	<i>It is steady both in peak and off-peak periods but sometimes during peak period the Internet connection speed could be slow (Participant IR3).</i>	Good service both peak and off-peak periods But could be slow connection speed during peak period	Network quality satisfactory	ISPs' service performance is satisfactory/good
Response to Question (iii)				
IR1, IR2, IR3, IR4, IR5, IR6, IR7, IR8, IR10, IR14, IR15, IR16, IR17, IR19, IR20, IR22, IR23	<i>The ISP's staff are well knowledgeable and are ready to assist, and they provide service support to their customers when they are asked to do so (Participant IR14).</i>	Ready to assist and provides service support	Customer care and service support satisfactory	ISPs' service performance is satisfactory/good
IR9, IR11, IR12, IR18, IR24, IR25	<i>They have a good customer care relationship and provide service support when needed (Participant IR11).</i>	Good customer care and service support	Customer care and service support satisfactory	ISPs' service performance is satisfactory/good
Response to Question (iv)				
IR1, IR2, IR3, IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR12, IR13, IR14, IR15, IR16, IR17, IR18, IR19, IR20, IR21, IR22, IR23, IR24, IR25	<i>My ISP is ever available to provide adequate, relevant and latest information to their customers (Participant IR5).</i>	Good Information Quality	Information Quality satisfactory	ISPs' service performance is satisfactory/good
Response to Question (v)				
IR1, IR2, IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR11, IR14, IR15, IR16, IR20, IR21, IR22,	<i>I believe my ISP follow the standard and regulation to keep personal and financial information safe and protected; I have never had any issue on this (Participant IR10).</i>	Personal and Financial information online safe and protected	Personal and financial information online protection is satisfactory	ISPs' service performance is satisfactory/good
IR3, IR12, IR13, IR17, IR18, IR19, IR21, IR23, IR24, IR25	<i>I cannot say precisely how well my personal, financial information and online has been protected, however,</i>	Not sure of personal and financial information protection	Personal and financial information online protection is satisfactory	ISPs' service performance is satisfactory/good

	<i>I have not experienced any cyber-attack on my Internet services (Participant IR3).</i>	Have not experienced cyber attack		
--	---	-----------------------------------	--	--

Table 3: Coding Frame for the Analysis of Semi-Structured Interviews relating to customer satisfaction with respect to ISPs' Service Performance

Participant	Data extract	Initial code	Theme	Main theme/Category
Response to Question (i)				
IR8, IR11, IR15, IR16, IR17, IR18 IR23, IR24	<i>I made the choice because my ISP's services are cost effective and of good or better service quality (Participant IR16).</i>	ISP choice made because services are cost effective Good service quality	Choice of ISP is for its services that are cost effective and good quality	Choice of ISP is because ISPs' service performance is satisfactory
IR1, IR10, IR13, IR19, IR21, IR25	<i>I made my ISP my choice because of its availability, responsiveness and affordability (Participant IR1)</i>	ISP choice made because of its availability, responsiveness and affordability	Choice of ISP is for its availability, responsiveness and affordability	Choice of ISP is because ISPs' service performance is satisfactory
IR2, IR4, IR5, IR20	<i>I made the choice because they have a wide Internet connectivity coverage (Participant IR2).</i>	ISP choice because of wide Internet connectivity coverage.	Choice of ISP is for its wide Internet connectivity coverage	Choice of ISP is because ISPs' service performance is satisfactory
IR6, IR9,	<i>My choice of ISP is because they are very reliable and their Internet is very fast (Participant 7).</i>	ISP choice because of very reliable and fast Internet	Choice of ISP is for its reliable and fast Internet	Choice of ISP is because ISPs' service performance is satisfactory
Response to Question (ii)				
IR3, IR6, IR8, IR14	<i>I see my present ISP as the one that is close to meeting my expectation (Participant IR14).</i>	ISP choice because it is close to meeting expectation	Choice of ISP, for it is close to meeting expectation	Choice of ISP is because ISPs' service performance is satisfactory
IR22,	<i>I met them because I have no option, all the ISPs in Nigeria are almost the same (Participant IR22).</i>	Have no option All ISPs are almost the same	No option, all ISPs are almost the same	No option, ISPs are the same.
IR1, IR2, IR3, IR4, IR5, IR6, IR7, IR8, IR9, IR10, IR11, IR12, IR15, IR16, IR18, IR19, IR21, IR23, IR24, IR25	<i>Good services, which are satisfactory, however, it can be better (Participants IR2 & IR4).</i>	Good services which are satisfactory It can be better	ISP's services are satisfactory but need to be improved.	ISPs' service performance is satisfactory but need improvement.

IR13, IR14, IR17, IR20, IR22	<i>I feel it is moderate because it gets the work done but not efficiently (Participant IR13).</i>	Moderate service Get work done but not efficiently	ISP's service is moderate, get work done but not efficiently	ISPs' service performance is moderate but not efficient
-------------------------------------	--	---	--	---

Table 4: Coding Frame for the Analysis of Semi-Structured Interviews relating to Behavioural Intention (Customer Loyalty)

Participant	Data extract	Initial code	Theme	Main theme/Category
Response to Question (i)				
IR3, IR5, IR6, IR8, IR9, IR10, IR11, IR12, IR13, IR15, IR16, R17, IR18, IR21	<i>They provide good quality services and their services are readily available (Participant IR5).</i>	ISPs provide good services that are readily available	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good
IR7, IR24	<i>The Internet service is fast and reliable (Participant IR7).</i>	ISPs' service is fast and reliable	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good
IR2, IR4, IR20	<i>They have wide connectivity coverage with service that is readily available (Participants IR2 and IR4).</i>	ISPs have wide service coverage that is readily available.	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good
IR19	<i>Because of its wide coverage and ease of accessibility (Participant IR19).</i>	ISP has wide service coverage that is easily accessed	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good
IR22, IR23	<i>I feel I get faster and cheaper services from my ISP (Participant IR22).</i>	ISP provide faster and cheaper services	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good
IR25	<i>The service is good and is the cheapest of the available one (Participant IR25).</i>	ISP provide good and cheaper services	ISPs' service is satisfactory	ISPs' service performance is satisfactory/good
IR1, IR14	<i>Because my ISP's services are fair enough (Participant IR14).</i>	ISP's services are fair	ISP's services are fair	ISPs' service performance is fair
Response to Question (ii)				
IR2, IR4, IR5, IR19, IR20, IR22	<i>I recommend my ISP for its wide connectivity network coverage; customer service response is good and readily available (Participant IR4).</i>	Recommends ISP for wide connectivity network coverage Recommends ISP for good and readily available customer service response	ISP's network performance and customer service are satisfactory	ISPs' service performance is satisfactory/good
IR1, IR3, IR9, IR23,	<i>I will recommend the ISP I use because their</i>	Recommends ISP for stable, fast and reliable services	ISP's network performance is satisfactory	ISPs' service performance is satisfactory/good

IR24, IR25	<i>services are stable, fast and reliable</i> (Participant IR3).			
IR6, IR21	<i>I will recommend to others about my ISP on cost of service and stability of network connectivity</i> (Participant IR6).	Recommends ISP on cost of service and stability of network connectivity	ISP's network performance and cost are satisfactory	ISPs' service performance is satisfactory/good
IR7 & IR17	<i>My present ISP provides better services compared to other service providers I have used before</i> (Participant IR7).	ISP provides better services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good
IR8, IR10,	<i>I will recommend that they provide quality services</i> (Participant IR8)	Recommends ISP for quality services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good
IR11, IR12, IR15, IR16	<i>I will recommend my ISP for the good services they provide</i> (Participant 15).	Recommends ISP for good services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good
IR18	<i>I will recommend that the service is good, reliable and affordable</i> (Participant 18).	Recommends ISP for good, reliable and affordable services	ISP's service is satisfactory	ISPs' service performance is satisfactory/good
IR13, IR14	<i>I will recommend that the services of my ISP are fair enough than others.</i>	Recommends ISP for fair services.	ISP's service is fair	ISPs' service performance is fair
Response to Question (iii)				
IR3, IR4, IR7, IR8, IR9, IR11, IR12, IR15, IR16, IR18, IR20, IR23, IR25	<i>I would still patronise them provided they still maintain better services</i> (Participant IR3).	Still patronise provided they maintain better services	Continue ISP patronage as it provides good services.	Continue ISP patronage as it provides satisfactory services.
IR6, IR10,	<i>I will feel bad because the economic as at now is not too friendly. However, I will remain with my ISP provided I am getting better services from them since it is a little price increase</i> (Participant IR6)	<i>Feel bad but will remain with ISP provided they maintains better services</i>	Continue ISP patronage as it provides good services	Continue ISP patronage as it provides satisfactory services.
IR2, IR5, IR14	<i>I will still continue my patronage with them provided they continue to provide better services. But if further increase in price occurs, I will have to consider whether to switch to</i>	Still continue patronage with ISP provided they continue to provide better services. Further increase in price, will determine	Continue ISP patronage with good services as further price increase, will likely determine switching.	Continue ISP patronage with satisfactory services as further price increase, will likely determine switching.

	<i>another ISP with good services (Participant IR5).</i>	switching to another ISP		
IR1, IR13, IR17, IR19, IR21, IR22, IR24	<i>Abandon the ISP and switch over to another network that is cost effective and more serviceable (Participant 21)</i>	<i>Abandon the ISP and switch over to another network</i>	<i>Switch to another network</i>	Switch to another ISP

Table 5: Coding Frame for the Analysis of Semi-Structured Interviews relating to Internet Bandwidth

Participant	Data extract	Initial code	Theme	Main theme/Category
	Response to Question (i)			
IR2, IR4,	<i>It meets my expectation as I have been able to use it to stream movies real time online on Netflix (Participant IR2).</i>	Meets my expectation for streaming movies.	ISP's service is satisfactory.	ISPs' service performance is satisfactory/good.
IR7, IR9, IR12	<i>Yes, to some extent, I am able to surf the Internet without interruption, download files and stream video with a good bandwidth facility but sometime the quality service could be poor especially during peak period (Participant IR7).</i>	To some extent, able to surf Internet without interruption. Download files and stream video with good bandwidth but sometime experience poor quality.	ISP's service is satisfactory.	ISPs' service performance is satisfactory/good.
IR13	<i>I will say it is about 90% (Participant IR13).</i>	ISP's service is good.	ISPs' service is satisfactory.	ISPs' service performance is satisfactory/good.
IR5, IR8, IR15	<i>I am able to surf the Internet and download files at ease. I am also able to stream videos and do online transaction without much difficulty (Participant IR15).</i>	Able to surf the Internet, download files, stream videos and do online transaction at ease.	ISPs' service is satisfactory.	ISPs' service performance is satisfactory/good.
IR16, IR18, IR19	<i>It's very okay (good) for now and satisfactory (Participant IR18).</i>	Service is good and satisfactory.	ISPs' service is satisfactory.	ISPs' service performance is satisfactory/good.
IR10, IR21, IR23	<i>Adequate/satisfactory for now with level of technological advancement (Participant IR21).</i>	Service is adequate and satisfactory.	ISPs' service is satisfactory.	ISPs' service performance is satisfactory/good.
IR1, IR3, IR14, IR17	<i>I won't say yes or no, I will only say it is fair enough (Participant IR1).</i>	Service is fair.	ISP's service is fair.	ISPs' service performance is fair.

IR6, IR11, IR20, IR22, IR24, IR25	<i>My expectation is not really met because at times surfing and downloading of files and streaming of videos as well as transaction online could be slow and frustrating (Participant IR6).</i>	Expectation not met surfing, downloading of files, streaming of videos and transaction online.	ISP's service is not satisfactory.	ISPs' service performance is not satisfactory/good.
Response to Question (ii)				
IR3,	<i>I am not sure of this whether the bandwidth is correct or not. However, the services provided by my ISP are steady and fast (Participant IR3).</i>	Not sure whether bandwidth is correct. Services provided by ISP are steady and fast.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.
IR13	<i>I can't say yes or no that I have the assurance but the speed of the Internet is fast, steady and reliable (Participant IR13).</i>	No assurance but the Internet speed is fast, steady and reliable.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.
IR8, IR15	<i>I cannot give assurance precisely, however, duration of subscription often last as expected (Participant IR15).</i>	No assurance but the service is as expected.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.
IR2, IR7, IR9, IR19	<i>I am not sure whether it is correct or not but the service is satisfactory (Participant IR19).</i>	Not sure whether it is correct or not but the service is satisfactory.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.
IR25	<i>I am not sure they do. However, the service is still okay even though it has not met my expectation (Participant IR25).</i>	Not sure they do but the service is still okay. Though it has not met expectation.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.
IR16	<i>I can't say precisely. But I haven't experienced any service disruption when surfing on the net or downloading file, so I believe the bandwidth is okay (Participant IR16).</i>	Have not experienced service disruption when surfing or downloading file. Bandwidth is okay.	Not sure whether bandwidth is correct but ISP's service is satisfactory.	Not sure whether bandwidth is correct but ISPs' service performance is satisfactory/good.
IR14	<i>I cannot give any assurance; however, I tried to study the duration of the present subscription and compare it with previous subscriptions and</i>	<i>No assurance; but service is fair.</i>	Not sure whether bandwidth is correct but ISP's service is fair.	Not sure whether bandwidth is correct but ISPs' service performance is fair.

	<i>found that it is fair (Participant IR14).</i>			
IR1, IR20, IR24	<i>I have no means of verifying whether the bandwidth is correct or not but the service is fair (Participant IR24).</i>	Have no means of verifying whether the bandwidth is correct but service is fair	Not sure whether bandwidth is correct but ISP's service is fair.	Not sure whether bandwidth is correct but ISPs' service performance is fair.
IR5, IR6, IR17	<i>I can't say have any assurance that my ISP provides the correct Internet bandwidth I subscribe for. Because at times I discover that the bandwidth I subscribed for just finished before the expected date of finishing and I am not always happy about this (Participant IR6).</i>	No assurance that ISP provides the correct Internet bandwidth. At times the bandwidth finished before the expected date and not happy about this.	Not sure whether bandwidth is correct, and service is not satisfactory.	Not sure whether bandwidth is correct as ISPs' service performance is not satisfactory.
IR4, IR10, IR12, IR18, IR21, IR23	<i>I have the assurance because it last long and speed is fast. (Participant IR4)</i>	Have the assurance, it last long and speed is fast.	Have assurance that bandwidth is correct as service is satisfactory.	Have assurance that bandwidth is correct as ISPs' service performance is satisfactory.
IR11, IR22	<i>Best to my knowledge they do not provide the required/desired bandwidth I subscribed for (Participant 11).</i>	Best to knowledge they do not provide the required/desired bandwidth.	Have assurance that bandwidth is not correct as service is not satisfactory.	Have assurance that bandwidth is not correct as ISPs' service performance is not satisfactory.
Response to Question (iii)				
IR1, IR13, IR14, IR21, IR25	<i>I will switch to another ISP with better bandwidth capacity (Participant IR1)</i>	Switch to another ISP with better bandwidth.	Switch to another ISP with good bandwidth.	Switch to another ISP with satisfactory bandwidth.
IR19	<i>I will have to migrate to another service provider with good bandwidth capacity (Participant IR19).</i>	Migrate to another ISP with good bandwidth.	Switch to another ISP with good bandwidth.	Switch to another ISP with satisfactory bandwidth.
IR20	<i>I will look for another ISP with good bandwidth facility (Participant IR20)</i>	Will look for another ISP with good bandwidth	Switch to another ISP with good bandwidth.	Switch to another ISP with satisfactory bandwidth.
IR17	<i>If I notice that my ISP is not providing me the correct bandwidth, I will opt out of the ISP and look for another where the bandwidth provision is better (Participant IR17).</i>	If ISP is not providing the correct bandwidth. Will opt out and look for another with better bandwidth provision.	Switch to another ISP with good bandwidth	Switch to another ISP with satisfactory bandwidth.
IR18	<i>If it does not meet my demand, I will be forced to consider</i>	Does not meet demand, will consider another	Switch to another ISP with good bandwidth	Switch to another ISP with satisfactory bandwidth.

	<i>another service provider with better bandwidth capacity (Participant IR18).</i>	ISP with better bandwidth		
IR4, IR22	<i>If this persists, I will look for another ISP with better service quality (Participant IR4).</i>	If issue persist, look for another ISP with better service quality.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists
IR3	<i>I will report the issue to the ISP customer care service but if this continues by the ISP, I will consider switching to another ISP (Participant IR3).</i>	Report issue to ISP customer care service. Consider switching to another ISP, if issue continue.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR5	<i>I will wait for some times but if this does not stop, I will look for another ISP (Participant IR5).</i>	Wait for some times, if not stopped, look for another ISP.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR6	<i>I will demand for my shortfall in bandwidth and if this issue did not stop, I will have to look elsewhere for Internet service (Participant IR6)</i>	Demand for the shortfall in bandwidth. If issue did not stop, will look elsewhere for Internet service.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR7	<i>I give my ISP a benefit of doubt and study them for sometimes, if there is no change in the shortfall in bandwidth, I will have to consider switching to another ISP (Participant IR7).</i>	Give ISP a benefit of doubt. If there is no change in bandwidth shortfall, switching to another ISP will be considered.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR8	<i>I will tolerate my ISP for sometimes, if there is no change in the shortfall in bandwidth, I will have to look for another ISP (Participant IR8).</i>	Tolerate ISP for sometimes, if no change in bandwidth shortfall, will look for another ISP.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR11	<i>I will observe for sometimes and if no amendment, I will be looking at other service providers (Participant IR11).</i>	Observe for sometimes, if no amendment, will look for other service providers.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR12	<i>If the shortfall in bandwidth continues, I will change to another ISP (Participant IR12).</i>	If shortfall in bandwidth continues, will change to another ISP.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR23	<i>If my ISP has shortfall in bandwidth. I make complaint for</i>	If ISP has shortfall in bandwidth, make complaint for adjustment.	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.

	<i>necessary adjustment. If it continues, “I will consider migrating to another network, if it is absolutely necessary (Participant IR23).</i>	If it continues, will consider migrating to another network.		
IR24	<i>I will make complaint for amendment. If nothing is done, I will leave for another ISP (Participant IR24).</i>	<i>Will complain for amendment. If persisted, will leave for another ISP</i>	Switch to another ISP, if issue persist.	Switch to another ISP, if bandwidth shortfall persists.
IR10	<i>If this affect my surfing and streaming of videos on the net, I will consider looking for another service provider (Participant IR10).</i>	If this affects my surfing and streaming of videos, will look for another service provider.	Switch to another ISP If issue affects service satisfactory.	Switch to another ISP, if bandwidth shortfall affects service satisfactory.
IR2, IR9, IR15, IR16	<i>I will stay with my ISP, if the price increase is not much and the service is okay (Participant IR2)</i>	Stay with ISP, if price increase is not much and service is okay.	Stay with ISP, if price increase is little and service is good.	Stay with ISP with little price increase and satisfactory service.

Table 6: Coding Frame for the Analysis of Semi-Structured Interviews relating to the Prices of Internet Users’ Access

Participant	Data extract	Initial code	Theme	Main theme/Category
	Response to Question (i)			
IR1, IR5, IR8, IR9, IR10, IR17, IR19, IR20, IR24, IR25	<i>The tariff is expensive to access the Internet service (Participant IR9).</i>	Tariff is expensive to access Internet service.	Tariff of Internet users’ access is expensive.	Price of Internet users’ access is expensive.
IR6	<i>Not too good, based on the economic situation the country is currently facing (Participant IR6).</i>	Not good, based on the economic situation.	Tariff of Internet users’ access is expensive.	Price of Internet users’ access is expensive
IR11	<i>I feel much is needed for them you do in forms of quality of service in order to justify the prices and tariffs they charge users. However, their prices seem expensive (Participant IR11).</i>	Quality of service used to justify users access tariffs; however, prices seem expensive.	Tariff of Internet users’ access is expensive.	Price of Internet users’ access is expensive
IR21	<i>Very challenging and so high, there is need for reduction (Participant 21).</i>	Prices are challenging and so high, there is need for reduction.	Tariff of Internet users’ access is expensive.	Price of Internet users’ access is expensive
IR22	<i>It is very high, when I compare it with other countries (Participant 22).</i>	It is very high compared with other countries	Tariff of Internet users’ access is expensive	Price of Internet users’ access is expensive

IR3, IR13, IR14,	<i>Prices are moderate but there is still the need for down review of the prices. (Participant 3).</i>	Prices are moderate but needs down review.	Tariff of Internet users' access is moderate	Price of Internet users' access is moderate
IR2, IR4, IR7, IR12, IR15, IR16, IR18, IR23	<i>They seem okay (Participant IR2).</i>	Prices seem okay	Tariff of Internet users' access is okay	Price of Internet users' access is affordable
Response to Question (ii)				
IR6, IR7,	<i>Options makes it more flexible (Participant IR6).</i>	More flexible	Prices are flexible	Price of Internet users' access is flexible
IR11,	<i>The price flexibility is quite commendable, giving room to various classes of subscribers (Participant IR11).</i>	Price flexibility gives room to various classes of subscribers	Prices are flexible	Price of Internet users' access is flexible
IR12	<i>They range from different prices and packages so you 'll get what you're able to (Participant IR12).</i>	<i>Range from different prices and packages that allows flexibility</i>	Prices are flexible	Price of Internet users' access is flexible
IR10, IR14, IR15	<i>The prices are flexible (Participants IR14).</i>	Prices are flexible	Prices are flexible	Price of Internet users' access is flexible
IR16, IR18, IR19, IR21	<i>It is very flexible (Participants IR16).</i>	Very flexible	Prices are flexible	Price of Internet users' access is flexible
IR23, IR25	<i>It is reasonably flexible (Participant IR23).</i>	Reasonably flexible	Prices are flexible	Price of Internet users' access is flexible
IR24	<i>Flexible in the sense that different bandwidths with their costs are being provided (Participant IR24).</i>	Flexible in different bandwidths with costs	Prices are flexible	Price of Internet users' access is flexible
IR2, IR4, IR5, IR8, IR9, IR13, IR17, IR20	<i>It is fair enough (Participant IR2)</i>	Prices are fairly flexible	Prices are fairly flexible	Price of Internet users' access is fairly flexible
IR1, IR3, IR22	<i>The price offers are not flexible</i>	Price offers are not flexible	Prices are not flexible	Price of Internet users' access is not flexible
Response to Question (iii)				
IR4, IR17, IR20, IR21, IR22, IR23, IR24, IR25	<i>I will migrate to a cheaper ISP with good services (Participant IR4).</i>	Migrate to cheaper ISP with good services	Switch to ISP with cheap and good services	Switch to ISP with cheap and satisfactory service performance
IR5	<i>Since I feel that price of Internet access is already expensive for me, I will just change to a cheaper ISP that also have good services (Participant IR5).</i>	Price of Internet access already expensive Change to cheaper ISP with good services	Switch to ISP with cheap and good services	Switch to ISP with cheap and satisfactory service performance

IR6, IR8, IR9, IR10, IR11, IR16, IR18, IR19	<i>I will consider switching to another service provider that is cheaper and has good services (Participant IR6)</i>	Consider switching to another ISP with cheap and good services	Switch to ISP with cheap and good services	Switch to ISP with cheap and satisfactory service performance
IR7	<i>I will check to see if the price difference is what I can accommodate with respect to the good service being provided. Otherwise, I will likely consider switching to a cheaper network provider (Participant IR7)</i>	Check price difference if it can be accommodated with respect to good service. Likely consider switching to a cheaper network provider	Likely to switch to ISP with cheap and good services	Likely to switch to ISP with cheap and satisfactory service performance
IR12, IR13, IR15,	<i>I will observe for sometimes and if I see another ISP that has cheap good services, I will switch to it (Participant IR12).</i>	Observe for sometimes and switch to another ISP with cheap good services.	Likely to switch to ISP with cheap and good services.	Likely to switch to ISP with cheap and satisfactory service performance
IR14	<i>If price is much higher, I will look elsewhere and move to another ISP with good services and is also less expensive (Participant IR14).</i>	If price is much higher, will move to another ISP with good and less expensive services.	Likely to switch to ISP with cheap and good services.	Likely to switch to ISP with cheap and satisfactory service performance
IR1, IR2, IR3	<i>I will stay with my ISP, if the price increase is not much and the service is okay. (Participant IR2).</i>	Will stay with ISP, if the price increase is not much and service is okay.	Likely to remain with ISP with little price increase and good service.	Likely to remain with ISP with little price increase and satisfactory service performance.

APPENDIX XI
LIST OF ACRONYMS/ABBREVIATIONS/GLOSSARY

A4AI - Alliance for Affordable Internet

IFLA - International Federation of Library Associations and Institutions

ALTON - Association of Licensed Telecommunications Operators of Nigeria

ANRT - Agence Nationale de Régementation des Télécommunications. This is referred to as National Telecommunications Regulatory Agency of Morocco

BTS – Base Transmitting Station

Customer service - The direct one-on-one interaction between a customer making a purchase and a representative of the service providers.

ESRC - Economic and Social Research Council

FCT – Federal Capital Territory

GDP – Gross Domestic Product

GSM – Global System for Mobile Communications

GSMA - Global System for Mobile Communications Association

Bandwidth - The maximum amount of data transmitted over an internet connection in a given amount of time.

IBM – International Business Machines

ICT - Information and Communication Technology

ISP (s) – Internet Service Provider (s)

Information Quality - involves service providers providing accuracy and complete information to customers

IT - Information Technology

ITU - International Telecommunication Union

Km - Kilometre

LTE - Long Term Evolution

NCC – Nigerian Communications Commission

Network Quality - involves the quality and strength of the Internet connection; number of interruptions and disconnections; and the speed of uploading and downloading files

NTIA - National Telecommunications and Information Administration

OFCOM - Office of Communications

SMEs - Small and Medium-sized Enterprises

SMS – Short Message Service

Security and Privacy - This is the level to which the customers feel that the connection is safe from intrusion and that their personal information is protected during transactions and usage

Technical Support - service provided by ISPs to allow registered users to obtain help and advice about their service.

2G – Second Generation

3G – Third Generation

4G - Fourth Generation