MARKET ORIENTATION AND FIRM PERFORMANCE IN GHANA’S MOBILE TELECOMMUNICATIONS INDUSTRY

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PhD

2016
DECLARATION

I, Emmanuel Arthur, declare that this is an original work by me and to the best of my knowledge has not been submitted for the award of a degree elsewhere and, except for where references are duly acknowledged, it contains no material previously published by anyone else.
DEDICATION

This work is dedicated to my late father, John Kwame Arthur, who believed in education, invested in it and yet didn’t live long enough to fully enjoy it.

Also, it is dedicated to my late wife, Jessie Sena Arthur, (nee Kuma) who contributed significantly to the inception of this journey but didn’t live long enough to see this day.

May their blessed souls rest in peace.

My son, Abeiku, thank you for enduring my absence from home in the absence of your dear mother. This is also dedicated to you.

Above All
To Almighty God
who made all this possible.
I am grateful and thankful for your overwhelming mercies and love.
ACKNOWLEDGEMENT

To Professor Nana Owusu-Frimpong whose persistence, extreme tolerance, patience and guidance have culminated in the completion of this study, I am eternally grateful. There is no way I could have completed this work without your expert guidance.

I am also grateful to my co-supervisor, Dr Sundeep Manghat, who assisted to see me through this study.

To Miss Chiara Francesconi, sincere thanks for your administrative support and guidance.

My mum Aba Yaa, siblings; Effie, Ekow, Nana, Ato, Aku, the Asare and Dickson families, your prayers and support made it all possible. Adwoa Yvonne you are a breath of fresh air.

Mr John Okwesie Arthur, Mr Stephen Kofi Yeboah, Mrs Catherine Hoffman, Prof John Aheto, Prof Emmanuel Addow-Obeng, Mr Kofi Baku, thank you for being there at critical moments of life and lending me a shoulder to lean on; you are forever appreciated.

To management of Central University who partly sponsored me on this programme, I am grateful. To Mrs Vida Appau (BDC) this work will never have been completed without your care, prayers and support.

The staff and subscribers of MTN, Vodafone, Tigo, Airtel, Glo and Expresso, as well as members of the Counseling Department, Action Chapel International, who took time off their busy schedules to answer questionnaires, I am thankful.

My appreciation also goes to Akosua Adwubi Amankwaah, Desmond Kumi and Esther Duodu for the assistance in making this possible.

To all and sundry whose names have not been mentioned but in one way or the other have pitched in here and there God, richly bless.

Above all, to Almighty God I am thankful for the spirit of excellence and strength to carry on.
ABSTRACT
This study set out to achieve a comprehensive understanding of the adoption levels of market orientation (MO) in Ghana’s mobile telecommunications industry, and to assess its relationship to performance. This was necessitated by the fact that, in-spite of the superfluity of literature on market orientation and its relationship to performance in developed economies and a few on developing nations such as Ghana, there are hardly any studies on Ghana’s mobile telecommunications industry despite its impressive performance. Furthermore, available studies generally assessed market orientation without incorporating any assessment by customers. The study, in addressing these deficiencies, makes significant contribution to academic knowledge on market orientation.

Based on literature reviewed, a conceptual model and nine hypotheses are proposed for this study. Both qualitative and quantitative research methods, underpinned by realism philosophy enabled the assessment of the market orientation performance relationship. Qualitative data collection entailed an in-depth interview of ten senior officers of five mobile telecommunications firms operating in Ghana selected by a judgmental sampling method, whose response was analysed by thematic analysis. Quantitative data was obtained by administering questionnaires on 275 staff selected by a simple random sampling method and 302 subscribers selected by a two-stage process of quota and convenience sampling methods. Confirmatory factor analysis, correlation matrix, structural equation modeling and T-test are utilized in the analysis of the quantitative data and the testing of the hypotheses.

The findings of the study established that in Ghana’s mobile telecommunications industry, market orientation is determined by one internal antecedent - top management emphasis with no external antecedent influencing it. The significant effect of market orientation on business performance, customer satisfaction, customer retention, employee commitment and employee esprit de corps have also been established by this study. Finally, the study establishes that, when compared, subscribers and staff assessment of the dimensions of market orientation differed with staff rating them higher than subscribers.

Based on the findings, the study recommends the need not only for mobile telecommunication operators to continue in the pursuit of market orientated activities, but also undertake measures to close the market orientation gap between them and their subscribers. Top management should also continue with the pivotal role they are playing in the implementation of market orientation, and enhance their information generation, dissemination and responsiveness processes not only to sustain market orientation but also their performance.

Notwithstanding the shortfalls identified, which did not adversely affect outcomes of the study, the study has developed an empirical model for market orientation, firm performance relationship for the mobile telecommunications industry incorporating a comparison of the assessment of the dimensions of market orientation by subscribers and staff. It is hoped that this new model will be used for further studies in both developed and developing countries to test the viability of its application.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration</td>
<td>i</td>
</tr>
<tr>
<td>Dedication</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>iii</td>
</tr>
<tr>
<td>Abstract</td>
<td>iv</td>
</tr>
<tr>
<td>Table of Content</td>
<td>v</td>
</tr>
<tr>
<td>List of Tables</td>
<td>xi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xii</td>
</tr>
</tbody>
</table>

**CHAPTER ONE: INTRODUCTION**

1.1 Introduction | 1
1.2 Background and Justification to Research | 1
1.2.1 Rationale/Significance of study | 4
1.3 Contribution of study | 6
1.4 Aim and Objectives of Research | 7
1.5 Research Questions | 7
1.6 Outline of Dissertation | 8
1.7 Summary of the Chapter | 8
Reference | 9

**CHAPTER TWO: BACKGROUND INFORMATION**

2.1 Introduction | 14
2.2 Mobile Telecommunication Industry | 14
2.3 Ghana's Mobile Telecommunications Industry | 15
2.3.1 Reforms in Ghana's Telecommunications Sector | 15
2.3.2 Competitive Landscape of the Mobile Telecommunications Industry | 20
2.3.2.1 Competitors in Ghana's Mobile Industry | 20
2.3.2.2 Shareholding Structure in Ghana's Mobile Industry | 24
2.3.2.3 Market Share and Performance in mobile industry | 26
2.3.2.4 Prefix Number Codes for Mobile operators | 28
2.3.3 Key Developments in the Mobile Industry | 29
2.3.3.1 Deployment of Fibre Optics Cables | 29
2.3.3.2 Installation and co-location of Telecom Masts | 30
2.3.3.3 SIM Card Registration | 32
2.3.3.4 Mobile Number Portability | 33
2.3.3.5 Mobile Data/Internet Access | 34
2.3.3.6 Harmonization of short codes | 36
2.3.3.7 3G Penetration and Emergence of 4G | 38
2.3.4 Contribution of Mobile Telecommunications to the Ghanaian Economy | 39
2.3.4.1 Contribution to Economic Growth | 41
2.3.4.2 Employment Generation by Mobile Telecommunications | 43
2.3.4.3 Social Contributions of Mobile Telecommunications | 44
2.3.4.4 Contribution to Other Industries | 45
2.3.5 Service Delivery by Mobile Service Providers | 46
2.3.6 Challenges Confronting Telcos in Service Delivery | 49
2.3.6.1 Electricity Failure | 49
2.3.6.2 Cable Cuts and Thefts | 50
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.6.3</td>
<td>Arbitrary and Exorbitant Taxes</td>
<td>51</td>
</tr>
<tr>
<td>2.3.6.4</td>
<td>Reduction in Average Revenue Per User (ARPU)</td>
<td>53</td>
</tr>
<tr>
<td>2.3.6.5</td>
<td>SIM Box Fraud</td>
<td>54</td>
</tr>
<tr>
<td>2.4</td>
<td>Summary of the Chapter</td>
<td>56</td>
</tr>
<tr>
<td>Reference</td>
<td></td>
<td>58</td>
</tr>
</tbody>
</table>

### CHAPTER THREE: LITERATURE REVIEW

#### 3.1 Introduction

3.2 Market Orientation and Marketing Orientation: Clarification of Terminology

3.3 Evolution of Marketing Concept/Orientation

3.3.1 Marketing Management Philosophies

3.3.1.1 The Production Philosophy

3.3.1.2 Product Philosophy

3.3.1.3 Selling Philosophy

3.3.1.4 Marketing Philosophy

3.3.1.5 Societal Marketing Philosophy

3.3.1.6 The Holistic Marketing Philosophy

3.4 Different Perspectives of Market Orientation

3.4.1 Decision Making Perspectives

3.4.2 Marketing Intelligence Perspective

3.4.3 Culturally Based Behavioural Perspectives

3.4.4 Strategic Focus Perspectives

3.4.5 Customer Orientation Perspectives

3.4.6 Further Categorisation

3.4.7 Cultural versus Behavioural Perspective

3.5 Synthesis of Market Orientation Perspectives

3.5.1 Customer Emphasis

3.5.2 Information Gathering

3.5.3 Interfunctional Coordination

3.5.4 Intelligence Responsiveness

3.6 Antecedents of Market Orientation

3.6.1 Internal Antecedents

3.6.1.1 Senior Management Characteristics

3.6.1.2 Interdepartmental Dynamics

3.6.1.3 Organizational Systems

3.6.2 External Factors

3.7 Consequences of Market Orientation

3.7.1 Economic Consequences

3.7.2 Employee Consequences

3.7.3 Customer Consequences

3.8 Market Orientation in Developing Country

3.8.1 Market Orientation in Ghana

3.9 Dyadic Assessment of Market Orientation

3.10 Summary of the Chapter

Reference
CHAPTER FOUR: HYPOTHESES AND CONCEPTUAL MODEL

4.1 Introduction ................................................. 132
4.2 Hypotheses .................................................. 132
4.2.1 Antecedents of Market Orientation ...................... 132
4.2.2 Elements of Market Orientation .......................... 139
4.2.3 Consequences of Market Orientation .................... 141
4.2.4 Dyadic Assessment of Market Orientation ............... 145
4.3 Conceptual Model .......................................... 146
4.4 Summary of the Chapter ..................................... 148
Reference .................................................................. 149

CHAPTER FIVE: RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction .................................................. 154
5.2 Objectives, Research Questions, Hypotheses ................. 154
5.2.1 Objectives .................................................. 154
5.2.2 Research Questions ........................................ 154
5.2.3 Hypotheses .................................................. 155
5.2.4 Relations between Research Objectives, Questions and Hypotheses ........................................................................ 156
5.3 Philosophical Stance ........................................... 156
5.3.1 Ontological Philosophy .................................... 157
5.3.1.1 Constructivist/Subjectivism Ontology ................. 158
5.3.1.2 Objectivist Ontology .................................... 158
5.3.2 Epistemology Philosophy .................................. 159
5.3.2.1 Positivism ............................................... 159
5.3.2.2 Interpretivism .......................................... 160
5.3.2.3 Post Positivism ........................................ 161
5.3.3 Choice of Research Philosophy ............................. 162
5.4 Research Methods ............................................. 163
5.4.1 Quantitative Methods ...................................... 163
5.4.2 Qualitative Methods ....................................... 164
5.4.3 Mixed Methods ............................................. 165
5.4.4 Research Method Chosen .................................. 166
5.5 Data Sources ................................................... 167
5.5.1 Secondary Data ............................................. 167
5.5.2 Primary Data ................................................. 167
5.6 Qualitative Approach ......................................... 168
5.6.1 Qualitative Sample Frame and Size ....................... 168
5.6.2 Qualitative Sampling Method .............................. 168
5.6.3 Qualitative Data Collection- In-depth Interview ........ 169
5.6.4 Conducting Interviews ..................................... 169
5.6.5 Qualitative Data Analysis .................................. 171
5.7 Quantitative Approach ........................................ 172
5.7.1 Quantitative Sample Size .................................. 172
5.7.1.1 Sample Size for Subscribers ......................... 173
5.7.1.2 Sample Size for Staff .................................. 173
5.7.2 Sampling Method .......................................... 174
5.7.2.1 Sampling Method for Subscribers ..................... 174
### Chapter Seven: Measurement Model Validation

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3.20 Repeat Purchase (ACRC)</td>
<td>244</td>
</tr>
<tr>
<td>7.3.21 Business Performance (ACBP)</td>
<td>245</td>
</tr>
<tr>
<td>7.3.22 Summary of Measurement Model Fit Statistics</td>
<td>246</td>
</tr>
<tr>
<td>7.3.23 Face Validity</td>
<td>247</td>
</tr>
<tr>
<td>7.3.24 Convergent Validity</td>
<td>247</td>
</tr>
<tr>
<td>7.3.25 Discriminant Validity</td>
<td>248</td>
</tr>
<tr>
<td>7.3.26 Nomological Validity</td>
<td>250</td>
</tr>
<tr>
<td>7.3.27 Summary of Results</td>
<td>250</td>
</tr>
<tr>
<td>7.4 Structural Equation Modeling/Hypotheses Testing</td>
<td>250</td>
</tr>
<tr>
<td>7.4.1 Extent of Practice of Market Orientation</td>
<td>250</td>
</tr>
<tr>
<td>7.4.2 Antecedents of Market Orientation</td>
<td>252</td>
</tr>
<tr>
<td>7.4.2.1 Hypothesis 1</td>
<td>253</td>
</tr>
<tr>
<td>7.4.2.2 Hypothesis 2</td>
<td>253</td>
</tr>
<tr>
<td>7.4.2.3 Hypothesis 3</td>
<td>254</td>
</tr>
<tr>
<td>7.4.2.4 Hypothesis 4</td>
<td>254</td>
</tr>
<tr>
<td>7.4.3 Consequences of Market Orientation</td>
<td>255</td>
</tr>
<tr>
<td>7.4.3.1 Hypothesis 6</td>
<td>256</td>
</tr>
<tr>
<td>7.4.3.2 Hypothesis 7</td>
<td>257</td>
</tr>
<tr>
<td>7.4.3.3 Hypothesis 8</td>
<td>257</td>
</tr>
<tr>
<td>7.4.4 Summary of Hypotheses Test Results</td>
<td>258</td>
</tr>
<tr>
<td>7.5 Customer Background Information</td>
<td>260</td>
</tr>
<tr>
<td>7.6 T Test</td>
<td>261</td>
</tr>
<tr>
<td>7.6.1 Hypothesis 9</td>
<td>261</td>
</tr>
<tr>
<td>7.7 Summary of the Chapter</td>
<td>264</td>
</tr>
<tr>
<td>Reference</td>
<td>265</td>
</tr>
</tbody>
</table>

### Chapter Eight: Discussion of Findings

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1 Introduction</td>
<td>266</td>
</tr>
<tr>
<td>8.2 Triangulation</td>
<td>266</td>
</tr>
<tr>
<td>8.2.1 Elements of Market Orientation</td>
<td>266</td>
</tr>
<tr>
<td>8.2.1.1 Customer Emphasis</td>
<td>267</td>
</tr>
<tr>
<td>8.2.1.2 Intelligence Generation</td>
<td>268</td>
</tr>
<tr>
<td>8.2.1.3 Intelligence Dissemination</td>
<td>269</td>
</tr>
<tr>
<td>8.2.1.4 Intelligence Responsiveness</td>
<td>270</td>
</tr>
<tr>
<td>8.3 Discussion of Staff Quantitative Findings</td>
<td>271</td>
</tr>
<tr>
<td>8.3.1 Market Orientation and Its Antecedents</td>
<td>271</td>
</tr>
<tr>
<td>8.3.1.1 Senior Management Characteristics</td>
<td>272</td>
</tr>
<tr>
<td>8.3.1.2 Interdepartmental Dynamics</td>
<td>274</td>
</tr>
<tr>
<td>8.3.1.3 Organizational Systems</td>
<td>277</td>
</tr>
<tr>
<td>8.3.1.4 External Factors</td>
<td>278</td>
</tr>
<tr>
<td>8.3.2 Market Orientation and Consequences</td>
<td>280</td>
</tr>
<tr>
<td>8.3.2.1 Customer Consequences</td>
<td>281</td>
</tr>
<tr>
<td>8.3.2.2 Employee Consequences</td>
<td>282</td>
</tr>
<tr>
<td>8.3.2.3 Business Performance</td>
<td>285</td>
</tr>
<tr>
<td>8.4 Comparison of Staff and Customer Perception of Market Orientation</td>
<td>286</td>
</tr>
<tr>
<td>8.5 Confirmation of Conceptual Model</td>
<td>289</td>
</tr>
<tr>
<td>8.6 Summary of the Chapter</td>
<td>293</td>
</tr>
<tr>
<td>Reference</td>
<td>296</td>
</tr>
</tbody>
</table>
LIST OF TABLES

Table 2.1 Mobile Phone Providers (Past and Present) Registered Names ...........21
Table 2.2 Trends in Mobile Subscription and Market share .........................26
Table 2.3 Number Codes for Mobile Operators .....................................28
Table 2.4 Figures at the end of three years for Mobile Number Portability ......34
Table 2.5 Mobile Broadband Subscription Trends ..................................35
Table 2.6 Harmonised Short Codes ....................................................37
Table 2.7 Socio-Economic Implication of Mobile Phones ............................40
Table 2.8 Fines for Poor Quality of Service ........................................47
Table 3.1 Similarities: Five leading market orientation perspectives .............89
Table 5.1 Relations between Objectives and Hypotheses ..........................156
Table 5.2 Sample Size for Subscribers ...............................................173
Table 5.3 Sample Size for Staff .......................................................174
Table 6.1 Background of Staff .........................................................199
Table 7.1 Background of Staff Respondents .......................................218
Table 7.2 Market Orientation Customer Emphasis ..................................220
Table 7.3 Market Orientation Intelligence Generation .............................222
Table 7.4 Market orientation Intelligence Dissemination ..........................223
Table 7.5 Market Orientation Intelligence Responsiveness .......................225
Table 7.6 Top Management Emphasis ...............................................226
Table 7.7 Risk Aversion .....................................................................228
Table 7.8 Formal Marketing Education ................................................229
Table 7.9 Market Based Reward System .............................................231
Table 7.10 Interdepartmental Conflict ................................................232
Table 7.11 Interdepartmental Connectedness .......................................234
Table 7.12 Competition ....................................................................236
Table 7.13 Technology ......................................................................237
Table 7.14 Market Turbulence ............................................................238
Table 7.15 Employee Commitment .....................................................240
Table 7.16 Esprit de Corps ...............................................................241
Table 7.17 Customer Satisfaction ........................................................243
Table 7.18 Repeat Purchases ..............................................................244
Table 7.19 Business Performance ........................................................245
Table 7.20 Summary of Measurement Model Fit Statistics ........................247
Table 7.21 Means, SD, AVE and Correlation Matrix ...............................249
Table 7.22 SEM Output for Hypothesized Relations between In Proposed Model 259
Table 7.23 Background of Subscriber Respondents ................................260
Table 7.24 Ratings of Market Orientation by Subscribers and Operators ....262
LIST OF FIGURES

Figure 2.1  Evolution of Ghana Mobile Telecom ...........................................21
Figure 2.2  Shareholding Structure of Mobile Companies ..............................25
Figure 3.1  Decision Making Perspectives ...............................................78
Figure 3.2  Marketing Intelligence Perspectives ........................................80
Figure 3.3  Culturally Based Behavioural Perspectives ................................82
Figure 3.4  Strategic Focus Perspectives ...............................................83
Figure 4.1  Proposed Model of Market Orientation ...................................147
Figure 7.1  Path Diagram for Dimension of Market Orientation .....................251
Figure 7.2  Path Diagram for Effects of Antecedents ..................................252
Figure 7.3  Path Diagram for Dimensions and Consequences of Market Orientation .............................................................256
Figure 8.1  Dimensions of Market Orientation ......................................271
Figure 8.2  Senior Management Characteristics and Market orientation ......274
Figure 8.3  Market orientation and Customer Consequences .....................282
Figure 8.4  Market orientation and Employee Consequences ......................284
Figure 8.5  Market orientation and Financial Business Performance ..........286
Figure 8.6  Market Orientation Gap Between Operators and Subscribers .........289
Figure 8.7  Empirical Model of Market Orientation for Ghana’s Mobile Telecommunication Industry ..................................................292
CHAPTER ONE
INTRODUCTION

1.1 Introduction
This research focuses on market orientation and firm performance within Ghana’s mobile telecommunications industry. This chapter, which serves as the introduction to the study, is organised into seven sections. The second section after the introduction provides an understanding of the background and justification for the research followed by the contribution of the study, the aim and objectives of the research, research questions, an outline of the research in terms of the time frame and composition of the chapters, and finally, a summary of the chapter.

1.2 Background and Justification for the Research
There has been tremendous growth in mobile phone ownership, use and competition globally (Boateng, 2011; Kai Akrofi and Kai Akrofi, 2011). No technology, according to the Economist (2008), has ever spread faster around the world. The past fifteen (15) years have brought an unprecedented increase in access to telephone services driven primarily by wireless technologies and the liberalization of telecommunications markets allowing for faster and cheaper rollout of mobile networks (Qiang, 2009). The total number of mobile phones in the world surpassed the number of fixed-line telephones in 2002 (Wireless Intelligence, 2008). Mobile phone subscription in 2007 constituted sixty (60) percent of the world population (ITU, 2008a) and, by the end of 2008, there were an estimated four billion mobile phones globally (Wireless Intelligence, 2008) with more mobile phone users in the developing than in the developed world (ITU, 2008a). The proportion of mobile subscriptions in developing countries increased from about 30% of the world’s total in 2000 to more than 50% in 2004 and to almost 70% in 2007 (Qiang, 2009). Ghana’s mobile industry is no exception to this trend as in the past few years it has been one of the fastest growing industries in the country (Kai-Akrofi and Kai-Akrofi, 2011; Sankaran et al., 2011).
The success story of Ghana’s mobile telecommunications sector is interlinked with the deregulation of the telecommunications sector in 1994 for a five-year comprehensive restructuring of the industry known as the Accelerated Development Program 1994-2000 (ADP 2000), formulated with the assistance of the World Bank, and other stakeholders.

The main objectives of the program were to:

i) achieve a density between 1.5 and 2.5 lines per 100 people;

ii) improve public access in rural and urban areas through the provision of payphone facilities (public and private);

iii) expand the coverage of mobile service; and

iv) promote Ghanaian ownership and control of telecommunications and retain an overall public regulatory control through the creation of a single agency (National Communications Authority, 2008).

Subsequently, the setting up of the National Communications Authority (NCA) and the Ministry of Communications in 1996 and 1997 respectively, contributed significantly to the development of the sector as they provided the necessary policy frameworks and directions (NCA, 2008). Mobile phone subscription increased from 19,000 in 1992 when mobile telephone services were first introduced into the country to 70,000 in 1999 (NCA, 2008). By 2007, it was estimated that there were 50 mobile phone subscriptions per 100 inhabitants, and the ratio of mobile cellular subscriptions to fixed telephone lines was 80 to one (ITU, 2008b). Active mobile phone lines as at August, 2012 were 24,438,983 representing a penetration rate of almost 96% of Ghana’s estimated population (NCA, 2012). From a paltry figure of 19,000 in 1992, mobile subscription at the end of 2014 stood at 30,360,000 representing a penetration rate of 113.37% of Ghana’s estimated population (NCA, 2015) invariably meaning that there are more mobile phones in Ghana than its population.

However, with six operators, namely MTN, Vodafone, Tigo, Airtel, GLO and Expresso, (National Communications Authority, 2012) currently operating in Ghana, the views of customers concerning mobile network services include many specific complaints about the obscurity of the tariffs, their high level, widespread concerns about the poor quality of service (QoS), the lack of customer care and, for businesses, the absence of service level agreements (SLAs). Additionally, there are concerns about weaknesses in security, access
to emergency services, the provision of location information and the integrity of communications (Sutherland, 2007).

This is clearly exemplified in the imposition of a number of fines on various mobile telecommunication networks for breaching service quality standards. During the 3rd quarter of 2011, MTN, Vodafone, Tigo, Airtel and Expresso were fined a total of GH¢1.2 million (equivalent of US$300,000.00) by the NCA. In March, 2012, MTN, Vodafone and Tigo, were fined a total of GH¢250,000 ($62,500.00) for similar infractions. In February, 2013, MTN, Tigo, Airtel, Glo and Expresso were fined a total of GH¢900,000.00 ($225,000) for poor quality of service (NCA, 2012, 2013).

Thus, while access and competition in the mobile telecommunication sector are on the ascendency, customer satisfaction, quality of service and revenue are on the decline. Javagli et al. (2005) state that in an era of globalization, which has brought about unprecedented changes in the service economy, organizations of all sizes and structures must search for strategies to improve performance without sacrificing quality. Javagli et al. (2005) prescribe an option when they state that market orientation that provides for a market-focused strategic flexibility to sustain competitive advantage is a strategic solution. Kasper (2002) subscribes to this thought when he asserts that service providers should be market oriented in order to survive in today’s turbulent markets, and perform better than non-market service organisations. If this is so then as intimated by Kurtinaitiene (2005), mobile telecommunications firms in Ghana should operate according to marketing orientation principles. Hence, to consolidate knowledge regarding the query as to what extent the adoption of marketing orientation supports a firm’s ability to achieve competitive advantage in Ghana’s mobile phone industry as intimated by Ashour (2010) is a vital and justified issue particularly for a sector that has witnessed no research in that regard.
1.2.1 Rationale/Significance of the Study

The marketing concept and the related construct of market orientation have been important components of marketing academics and practice for several decades (Lafferty and Hult, 2001; Zebal and Goodwin, 2011, Dwairie et al., 2012). Gray and Hooley (2002) intimate that it has been studied by many researchers, such as Webster (1988); Narver and Slater (1990); Kohli and Jaworski (1990); Ruekert (1992); Jaworski and Kohli (1993); and Deshpande et al. (1993). A problematic issue, according to Gray and Hooley (2002), has been the lack of consensus over how to define and measure market orientation. There has been some differentiation in the literature with marketing orientation seen as a business philosophy, and market orientation seen as an implementation of the philosophy (Gray et al., 1998). However, the terms “marketing orientation” and “market orientation” have been used interchangeably in the effectiveness literature (Gray et al., 1998; Gray and Hooley, 2002).

Gray and Hooley (2002) provide a more inclusive definition, which bridges both the philosophy and behaviour and allows investigation of mediating and moderating variables as well as antecedents and consequences. They state that “market orientation is the implementation of a corporate culture or philosophy which encourages behaviours aimed at gathering, disseminating and responding to information on customers, competitors and the wider environment in ways that add value for shareholders, customers and other stakeholders”. In this context, Lafferty and Hult (2001) and Zebal and Goodwin’s (2011) synthesis of five different perspectives of marketing orientation advanced in literature, each taking a different approach to the concept of market orientation, becomes relevant. These are the decision-making perspective by Shapiro (1988); marketing intelligence perspective by Kohli and Jaworski (1990); culturally based perspective by Narver and Slater (1990); business unit perspective by Ruekert (1992); and customer orientation perspective by Deshpande et al. (1993). There is, however, consensus among the various perspectives that market orientation entails an emphasis on customers, intelligence generation, intelligence dissemination and responsiveness (Lafferty and Hult, 2001; Bunic, 2007; Hou, 2008; Moktar, 2009; Hashim and Bakar, 2011).
Studies that explore the effect of market orientation on performance have demonstrated positive relationships between market orientation and performance (Dawes, 2000; Blankson and Stokes, 2002; Cano et al., 2004; Shoham et al., 2004; Kirca et al., 2005; Kurtinaitiene, 2005; Zebal and Goodwin, 2011). The essential claim of the marketing literature is that the implementation of market orientation in an organisation will lead to financial performance (Kirca et al., 2005; Kumar, 2002; Dawes, 2000); employee satisfaction; esprit de corps; and organisational commitment (Ruekert, 1992; Jaworski and Kohli, 1993; Zebal Goodwin, 2011); and positive customer responses of satisfaction and repeat purchases (Zebal and Goodwin, 2011).

Specific to Ghana’s environment, a plethora of studies has been undertaken on the market orientation, performance relationship (Hinson et. al., 2007; Hinson and Mahmoud, 2011; Mahmoud, 2011; Mahmoud et al., 2012; Boohene et al., 2012; Mahmoud and Hinson, 2012) covering several sectors of the economy. The general consensus of these studies within Ghana confirms the often held view that there is a significant positive relationship between market orientation and performance (Mahmoud 2011, Mahmoud and Hinson, 2012; Boohene et al., 2012).

Even though the positive impact of market orientation has been agreed upon generally in Ghana, few studies have focused explicitly on its implications for mobile telecommunications in Ghana thus providing ample justification for the study. To date there has been no published study examining the adoption of market orientation and performance in Ghana’s mobile telecommunication industry despite what Frempong (2009) calls the catalytic role mobile telephones play in business development. Mahmoud and Hinson’s (2012) research into market orientation, innovation and corporate social responsibility (CSR) practices in Ghana’s mobile telecommunications sector which concluded that a firm’s degree of market orientation and CSR have significant impact on innovation, which then influences business performance is the closest attempt in this regard.
1.3 Contribution of Study

This research seeks to test the applicability and robustness of market orientation and its relationship to performance in Ghana’s highly competitive mobile telecommunications industry. This is significant because, in spite of the emergence of marketing orientation theory with its attendant influence on performance as a topical issue in marketing and management practice and the significant contribution of the mobile telecommunications industry to Ghana’s socio-economic development, there is no significant study that examines the relationship between marketing orientation and performance in the industry. The study thus makes a noteworthy contribution in this respect.

Also as indicated by Jaiyeoba (2014), despite the agreement amongst scholars of a strong positive correlation between market orientation and business performance (Greenly, 1995; Matsuno et al., 2002; and Kara, 2005; Vieira, 2010), others have reported mixed findings (Jaworski and Kohli, 1993; Han et al., 1998; and Pelham, 2005). Therefore, as intimated by Dauda (2010) the anecdotal research conducted on market orientation and the mixed findings reported complicate efforts amongst both academics and practitioners to conclude on the real effects of the construct upon business performance. This is further exacerbated by the absence of empirical research on the market orientation and firm performance relationship in Ghana’s mobile telecommunications industry; thus, representing both an empirical and theoretical gap to which this pragmatic study seeks to bring clarity and certainty to as its contribution, in response to the view expressed by Kirca et al. (2005) that the perceived correlation between market orientation and business performance may vary between industries implying that findings of a given industry may not apply to another.

Furthermore, the study as advised by several authors (Haskim and Bakar, 2011; Steimann, et al., 2000; Webb et al., 2000) makes a novel contribution to a new strand of thought in market orientation discourse, where a comparative assessment of the dimensions of market orientation and their practice is undertaken from both the subscribers and operators perspectives, instead of the self-report measures adopted in several previous studies. Taking a dyadic view in evaluating a firm’s extent of market orientation, according to Webb et al. (2000), points to the existence of potential
differences between the self-reports of the providing firm and its customers’ evaluations. The relevance of this approach, according to them, emanates from the view that because market orientation contains a strong customer emphasis a firm can be accurately described as market-oriented only when its customers perceive it as such; a position the study sought to explore and contribute to.

1.4 Aim and Objectives of the Research

Aim of the Study

This study aims to achieve a comprehensive understanding of the adoption levels of market orientation (MO) in Ghana’s mobile telecommunications industry and to assess its relationship to performance, taking into account both the operators and subscribers' assessment of the dimensions of market orientation.

Research Objectives

Specifically the study seeks to achieve the following:

1. To ascertain the adoption levels of market orientation in Ghana’s mobile telecommunications industry.
2. To examine the gap between operators and subscribers’ perceived level of market orientation in Ghana’s mobile telecommunications industry.
3. To critically evaluate (internal and external) the dimensions of market-oriented behavior for mobile telecommunication service providers (TSPs) in Ghana.
4. To examine the relationship between market orientation and business performance in the context of mobile telecommunications services in Ghana.

1.5 Research Questions

The study seeks to provide answers to the following questions:

1. What is the adoption level of market orientation in Ghana’s mobile telecommunications industry?
2. Is there a gap between operators and subscribers’ perceived level of market orientation in Ghana’s mobile telecommunications industry?
3. Are there specific dimensions (internal and external) of market-oriented behaviors necessary for mobile telecommunication operators in Ghana?
4. What is the relationship between market orientation and business performance in Ghana’s mobile telecommunications industry?

1.6 Outline of the Dissertation
This dissertation has nine chapters. Eight chapters follow this chapter which serves as the introduction to the dissertation. Chapter two provides an understanding of the context within which the study is undertaken explaining developments within the global and domestic mobile telecommunications industry. Chapter three reviews relevant literature on elements, antecedents and consequences of market orientation, that aids in the development of the conceptual framework and formulation of nine hypotheses in chapter four. The methodology and data collection methods are presented in chapter five; and in chapter six the analysis and findings of qualitative data are reported. Analysis and reporting of quantitative data are presented in chapter seven. A comparison of quantitative and qualitative data and discussion of findings and the extent to which they resonate with previous research findings are subsequently reported in chapter eight. Finally, chapter nine discusses the thrust of the study, the research study’s conclusions, limitations and implications, and future research direction.

1.7 Summary of the Chapter
This introductory chapter of the study has provided an overview of Ghana’s mobile telecommunications industry; highlighted the research problem and provided justification for the study; established the research aim and objectives to be achieved; provided the research questions to be answered; established the contribution the study makes; and finally, provides an indication of the chapters that constituted the study. The next chapter, which is chapter two, will provide a comprehensive understanding of Ghana’s mobile telecommunications industry within developments in the global sector, which serves as the context within which the market orientation, firm performance study is undertaken.
Reference


Bunic, Z., 2007. *Influence of Market Orientation on Business Performance Case: Croatian Manufacturing Companies* 16th EDAMBA Summer Academy, Soreze, France


CHAPTER TWO
BACKGROUND INFORMATION

2.1 Introduction
This chapter provides an understanding of Ghana’s mobile telecommunications industry within the context of developments in the industry at the global level. It has four main sections. Besides the first section, which serves as the introduction, the second section looks at the global telecommunications industry; the third section looks at Ghana’s mobile telecommunications industry detailing a vivid picture of developments in the sector; with the fourth and final section serving as the summary of the chapter.

2.2 Mobile Telecommunications Industry
Mobile telecommunications has been one of the most dynamic segments in the telecommunications sector over the past few years. Mobile telephony has transformed the way in which consumers and business operate in developing markets. As fixed lines often remain undeveloped and unavailable to the majority of the population in developing markets, mobile services have often become the universal providers of communication services (Deloitte, 2012). There has been tremendous growth in mobile phone ownership and use globally. Total mobile penetration has more than doubled in all regions of the world since 2005, and is attributable to numerous factors including a fall in handset and usage costs and an improvement in service quality and network coverage (Deloitte, 2012). By 2007, mobile phone subscriptions constituted 60 percent of the world population (Frempong, 2009). These significant penetration increases have made basic mobile services (voice, texts and basic text-related services) available to billions of people across all income levels (Deloitte, 2012).

Mobile telephones have since exhibited a positive influence on some of the critical pillars of business operations - access to market, reduced cost of doing business, e-financial services and access to business information (Frempong, 2009) thereby making mobile telecommunications paramount to a country’s economic and social development (Deloitte/GSMA, 2011a). It has continued to provide unprecedented opportunities for economic growth in both developed and developing markets, and mobile services have become an essential part of how economies work and function (Deloitte, 2012).
Technological development and business innovations are making mobile telephones strategic technologies for boosting business development, thus moving away from being a tool for only voice communication (Frempong, 2009). Major innovations, most importantly digital technology, enabled the operators to provide the market with new impulses for growth (Gruber and Hoenicke, 1999). They have provided multi-purpose platforms for services such as internet connectivity, e-banking, and e-commerce, among others (Frempong et al., 2007). Waverman et al. (2005) state that these innovations and their applications are increasingly contributing to business competitiveness, as well as developing new business models whose impact is enormous. Invariably, these have an impact on economic growth and the growth is very significant in developing countries such as Ghana.

As of mid-2007, there were over 2.3 billion cellular phone service subscribers worldwide. That number was expected to grow to nearly 4 billion by the end of 2011 (Frempong 2009). This expectation was exceeded because, by the end of 2011, there were 6 billion mobile subscriptions, equivalent to 87% of the world population. This is a huge increase from 4.7 billion mobile subscriptions in 2009, and 5.4 billion in 2010 (Kai Akrofi and Kai-Akrofi, 2011).

2.3 Ghana’s Mobile Telecommunications Industry
The success story of Ghana’s mobile telecommunications is situated within the context of major reforms carried out in Ghana’s telecommunications sector. As part of the general economic system adopted from the World Bank and International Monetary Fund in the 1980s, the Government of Ghana was to divest itself from direct participation in certain critical sectors of the economy and play more of a facilitatory role. Consequently, the telecommunication sector was reformed in addition to other state managed corporations (Frempong, 2002).

2.3.1 Reforms in Ghana’s Telecommunications Sector
Reforms in the telecommunications sector commenced with the promulgation of the National Redemption Council Degree No 311 in 1974 which declared the Post and Telecommunications department, a public corporation. The degree culminated in the establishment of the Ghana Post and Telecommunications Corporation (GPTC), placed
under the authority of the Ministry of Communication (Osiakwan, 2008), which remained responsible for operating the nation’s telecommunications and licensing of telecom until October 1995. Since 1974, many developments have taken place in the sector. Preceding the early 1990s when the main telecommunications reform started in Ghana, there were a number of significant projects which were earmarked to improve the operations of the incumbent Ghana Post and Telecommunications (GP&T) and to introduce competition into the sector (Tobin, 2010). In 1975, GP&T started a series of projects known collectively as the First and Second Telecommunication Project (FTP and STP). Although these projects did not result in any major immediate growth in the number of users, they provided the basis for the relative improvements in the sector, especially the STP, which ensured the installation of a new international telephone exchange, the rehabilitation of various exchanges and external cable network (Frempong and Henten, 2004).

However, major reforms in Ghana’s telecommunication sector commenced with the introduction of the five year Accelerated Development Programme (ADP) for the telecom sector introduced between 1994 and 2000 (Tobin, 2010). The ADP was created with the assumption that competition is needed for improved access, reliability and quality of service (Frempong and Atubra, 2001). It aimed to increase teledensity from 0.31% to about 1.5-2.5% through the provision of public and private payphones; improved public access in rural and urban areas; expansion of coverage of mobile services; promote Ghanaian ownership of telecommunications companies; and retention of overall public regulatory control of the sector through the creation of a single agency (Spintrack, 2004).

The strategies adopted to achieve these objectives included the privatisation of Ghana Telecom (GT) through the sale of a strategic stake to an international operating company; the creation of a competitive duopoly by licensing a second national network operator with similar rights and obligations; the liberalization of value-added services; mobile cellular telephone services; data transmissions; paging and payphones; the establishment of a regulatory agency for the sector; and allowing large corporate users to develop their own private networks (Frempong et al., 2005). Consequently, the reform in Ghana,
according to Frempong (2002), proceeded in the form of liberalization, privatization, the creation of duopoly, and the establishment of an independent regulatory body.

Liberalization of the telecom sector in Ghana began in the early 1990s when the Ghana government liberalized the sector to allow for private participation to complement the activities of the then Ghana Posts and Telecommunications Corporations to increase coverage and enable the introduction of more value-added telecommunications services in the country (Frempong and Atubra, 2001). Four main factors influenced the Government’s decision to embark on the liberalization of the telecommunications sector. First, it did so as a result of its obligations under the World Trade Organization (WTO) agreements and as part of the World Bank/IMF conditions for making loan advances for restructuring the sector. Secondly, the Government used licenses to encourage the expansion of the network through foreign investment. Thirdly, the Government used the licensing process to generate public revenue, and to encourage the provision of certain basic telecommunications, in the public interest (Osiakwan, 2008).

The first step towards privatization of the sector was the separation of the Posts and Telecommunications Divisions into two autonomous institutions. This was carried out through the enactment of the Statutory Corporations (Conversion to Companies) Act, 1993, Act 461. The Act metamorphosed the Telecommunications Division into Ghana Telecom Company (a company limited by shares) in June, 1995 with the Ghana Government being a majority shareholder (Toobin, 2010).

Also as part of the strategy of ensuring rapid development of the telecommunications sector and to break the monopoly of the Ghana Telecom (GT), a second national operator was licensed in 1997. The second operator, Westel, was to have similar rights and obligations as pertained to GT. Both companies were granted exclusivity rights for five (5) years with Ghana Telecom and Westel mandated to roll out 250,000 and 30,000 lines respectively within the 5-year period. The creation of duopoly was to introduce competition into the fixed line telephone sub-sector so as to enable subscribers to enjoy the benefits of competition such as more, better and less costly services (Frempong, 2002).
Before the reform, Ghana Telecom acted both as a player and a referee. With the reform, an independent regulatory institution, the National Communication Authority was established by NCA Act, 1996, Act 524 with the objective to regulate communications by wireless, cable radio, television, satellite and similar technology for orderly development and operations of efficient communication services in Ghana (Frempong, 2002). The Accelerated Development Programme, as intimated by Addy-Nayo (2001), was also expected to address the problem of imbalance in the distribution of telephones in Ghana by narrowing the gap between the rural and urban areas, and by increasing the number of telephone lines to 500,000 by the turn of the century. This target was considered ambitious by some industry watchers considering the fact that a phone line in 1994 cost at least USD 200 to install in a country with a per capita income of USD350. However, after the privatization of Ghana Telecom, phone lines increased from over 63,000 in 1995 to 200,000 by December, 2000 (Frempong, 2002). This meant almost a 200 percent increase in less than six (6) years, thus negating the initial fears.

By 2006, the industry’s revenue had increased by five-fold, taking 2002 as the base year. Total assets and net assets increased by four-fold each from 2002 to 2006. Shareholders’ equity increased from 2002 to 2006 with an increase in the assets of the industry. Industry net profit increased considerably from 2002 to 2006 even though 2002 recorded a loss. The subscriber base increased 13 times by 2006 with 2002 as a base year (Koi Akrofi, 2013). These developments attest to the strides and benefits emanating from the reforms carried out in the telecommunications sector, providing justification for the huge investments in the sector.

The resultant impact of reforms in Ghana’s telecommunications sector is that Ghana has one of the most liberalized mobile telephone markets in Africa; but, until recently, this did not radically exert competitiveness and rapid development in the market (Frempong et al., 2005). However, during the past decade, the industry has witnessed a tremendous increase in subscriber growth rate for all the mobile telecommunication operators (Nimako et al., 2010). Even before the ADP, in 1992 the government, under the administration of the Ghana Frequency Regulation and Control Board (GFRCB), issued licenses for the establishment of cellular providers in the country (Tobbin, 2010). By
1996, Ghana had three mobile phone operators - Mobitel (1992-1993), Celltel (1995) and Spacefon (1996) - established and providing mobile services (Haggarty et al., 2002). By the end of 2006, the number had increased to five with the entrance of One Touch and Zain (Tobbin, 2010); and to six with Glo joining the fray in 2009. Mobile phones have since become a major source of communication in Ghana (Sey, 2008; World Bank, 2007).

The growth of mobile telephony has been accelerating rapidly since 2003, becoming a substitute for fixed line telephones. By 2006, mobile telephony had 25% penetration when overall teledensity was 27.2% (Osiaakwan, 2008). Between 2000-2007, the compound average growth rate (CAGR) of fixed line telephones was 6.5 percent, while that of mobile telephones was 81.4 percent. By 2007, the ratio of mobile cellular subscriptions to fixed telephone lines was 80 to one (International Telecommunications Union, 2008b). By 2008, almost sixty (60) percent of Ghanaians aged sixteen (16) and older had active SIM cards which they used to both make and receive calls (Frempong, 2009). As Koufie et al. (2010) intimate, the sector in the Ghanaian economy providing mobile phone service is very young, but the sector appears to be growing at a fast rate. As young as these mobile service providers are, there is definitely a positive perception of the impact of mobile phone diffusion on the economy and employment creation.

The ease of subscription and the flexibility it provides for communication purposes have contributed to its rapid growth. In addition, the multi-purpose nature of the technology has contributed to its popularity and it being transformed from its original social status symbol to a versatile technology for economic activities (Frempong, 2009).

Recent mobile telephony growth has been high. Growth in the sector has been driven by both demand-side factors, such as the increasing popularity of cheap mobile phones and by supply-side factors such as regulatory reforms and technological innovations (twinPine, 2012). Strong competition in the market place has pushed prices downwards providing an increased benefit to consumers (Teppeh, 2010). According to Deloitte/GSMA (2012), a key contributing factor to the extension of mobile services in sub-Saharan countries like Ghana has been the increased availability of affordable
handsets frequently as low as US$30. Currently, handset prices range between US$30-400, whereas the price of SIM cards has fallen from an average of US$48 in 2004 to US$1.50-3.00 in 2008 (Frempong, 2009), with others such as Osiakwan (2008) indicating that some mobile companies at a point in time sold SIM cards at a cost of US$60. A 20 percent fall in mobile device prices occurred between 2009 and 2011 (Deloitte/GSMA 2012). The mobile networks also cover larger geographical areas. It is now possible for people living in a village to own mobile phones, making mobiles a key contributor to bridging the urban-rural digital divide in Ghana (Osiakwan, 2008).

Like most operators in emerging markets, Ghana’s mobile operators predominantly use the prepaid model of subscription. Prepayment means that the subscriber buys airtime that is stored in his account and that he can only call for as long as his account is loaded with sufficient airtime. Prepaid airtime constitutes 95 percent of sales revenue offering huge opportunities for operators, who shift credit risk to the consumer and do not carry the cost for expensive “subsidized” handsets (Francois-Xavier, 2009). It is obvious that Ghana’s mobile telecommunication has progressed beyond every conceivable imagination. As indicated by Deloitte/GSMA (2012), market growth, scale of economies, reducing handset prices and increasing market competition have led to steady price reductions and, in turn, affordability has driven the significant increase in the use of mobile phones.

2.3.2 Competitive Landscape of the Mobile Telecommunications Industry

2.3.2.1 Competitors in Ghana’s Mobile Industry

Currently, there are six major competitors in Ghana’s mobile telecommunications industry as shown in Table 2.1, namely MTN, Vodafone, Tigo, Airtel, Expresso and Glo. As stated by Koi-Akrofi (2013), some of the entrants by virtue of rebranding, acquisitions and mergers have changed in shareholding structure and name.
Table 2.1: Mobile Phone Providers’ (past and present) Registered Names

<table>
<thead>
<tr>
<th>Mobile Operator (Current Name)</th>
<th>Previous Name(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tigo Ghana</td>
<td>Known as Buzz but before then Mobitel</td>
</tr>
<tr>
<td>Expresso Ghana</td>
<td>Known as Kasapa but before then Celltel</td>
</tr>
<tr>
<td>MTN Ghana</td>
<td>Known as Areeba but before then Spacefon</td>
</tr>
<tr>
<td>Vodafone Ghana</td>
<td>Previously known as Onetouch (Ghana Telecom)</td>
</tr>
<tr>
<td>Airtel Ghana</td>
<td>Known as Zain but before then Westel</td>
</tr>
<tr>
<td>Glo Mobile</td>
<td>Recently became operational</td>
</tr>
</tbody>
</table>

Source: Koufie et al. (2010)

Evidence from Table 2.1 confirms the fact that almost all the mobile telecommunications companies operating in Ghana, with the exception of Glo Mobile, have undergone rebranding and a change of name. MTN, Tigo, Expresso and Airtel have undergone rebranding and a change of name thrice; and Vodafone changing name twice, current name inclusive. Koufie et al. (2010) attribute this phenomenon to competition, stating that “competition has reached an alarming rate where rebranding, mergers and acquisitions are the order of the day”.

Figure 2.1: Evolution of Ghana Mobile Telecom

Source: Adadevoh (2009)
As can be seen from Figure 2.1, Millicom Ghana, a subsidiary of Millicom International Cellular S.SA ("MIC") UK/Luxembourg emerged on the Ghanaian mobile scene in 1991 under the brand name Mobitel using the ETACS (European Total Access Communication System) analogue system (Nimako et al., 2010). By 1998, it had 22,000 subscribers and 70% of the mobile market. Its delay in adopting the GSM technology made it lose its market position to Spacefon now (MTN), which entered the market with GSM technology. As evident from Figure 2.1, Millicom rebranded itself as Buzz in 2002 introducing its GSM technology only to be rebranded as Tigo in 2006 (Nimako et al., 2010).

CellTell, owned by Kludjeson International (as shown in Figure 2.1), was the second mobile operator to commence operations in Ghana in 1993 using AMPS (Advanced Mobile Phone System) technology with coverage in Accra and Tema. Hutchison acquired 80% of Celltel Limited in 1998 and in 2003 changed the brand to Kasapa and the company name to Kasapa Telecom Limited (as shown in Figure 2.1). By 2005, Kasapa became a wholly-owned subsidiary of Hutchison Telecom. Kasapa’s assets were acquired by Dubai based Expresso in 2010 which subsequently rebranded Kasapa to Expresso Ghana (Sankaran et al., 2011).

Scancom Ghana Limited, the third mobile operator, commenced operations in October, 1996 as Spacefon using GSM 900 technology. Figure 2.1 shows that the company rebranded in 2004 and operated as Areeba; and in 2007 it was taken over by Mobile Telecommunications Network Group (MTN), a South Africa based mobile operator which changed its name to MTN Ghana. Being the first digital cellular network in Ghana, coupled with the high quality service offered by their GSM, attracted more customers and has since maintained its enviable position of being the market leader (Nimako et al., 2010).

Ghana Telecom, the precursor to Vodafone Ghana, was set up as part of the reform of the ADP (1994-2000) (Osiakwan, 2008). It became a partially privatized corporation in 1996 when GCOM (a consortium lead by Telecom Malaysia) purchased a 30% stake in the company with full management control for USD38million (Osiakwan, 2008). From
Evidence from Figure 2.1, shows that in 2002, Ghana Telecom launched and operated its cellular business under the brand name Onetouch becoming the fourth competitor in the now fledging mobile telecommunications industry. In addition to the shareholding, GCOM was given a management contract, which required it to roll out 500,000 high-quality lines. This was not achieved and the management contract was abrogated when it expired in February, 2002.

In place of Telekom Malaysia, the government entered into a management contract with Telenor of Norway during the early part of 2003. However, Telenor’s contract was also later abrogated for lack of performance, and a local management team was put in place (Osiakwan, 2008). After a protracted dispute, which went to the International Court of Justice in the Hague, the Ghanaian government and that of Malaysia agreed to an amicable settlement for the former to buy back shares in Ghana Telecom in 2006. The government reportedly paid about US$55million for the 30%, which had been bought by Telkom Malaysia and its partners in GCOM for $38million in 1997. The move restored the entire 100% stake in Ghana Telecom back to the government (Osiakwan, 2008). As evident in Figure 2.1, Vodafone U.K entered the Ghana market with the acquisition of 70% of the previously state owned/run Ghana Telecom in 2008 at a cost of $900million and subsequently changed the name to Vodafone Ghana (Sankaran et al., 2011).

Table 2.1 shows that Airtel, the India based telecommunications giant, entered Ghana via the acquisition of Zain during the latter part of 2010. Again, as shown in Figure 2.1, Zain itself entered the Ghanaian market in 2008 through the acquisition of the 75 % unused license of Westel Communications from the Ghana government at a cost of USD120m (Sankaran et al., 2011).

The final entrant in the Ghanaian mobile market as shown in Table 2.1 is Nigeria based Glo Mobil which is yet to undergo any rebranding. It entered the Ghanaian market after an express bid for a sixth mobile license was launched on 6th March, 2008. The authorities’ shortlisted 11 unsolicited applications from companies including Globacom Nigeria. On 20th June, 2008, the NCA announced that Glo Mobile had been awarded the license for a consideration of USD50.1m. Glo, in early 2012, launched its number
reservation facility that enabled the public to reserve their numbers on the 023-3 number series on the Glo Mobile Ghana Network. After several broken promises of commencing business, Glo Mobile finally launched its commercial operations on April 29th, 2013 (Osiakwan, 2008).

Competition exists not only between operators but also as a result of over-the-top players, that is, social media providers such as WhatsApp, imo and viber. These over-the-top players use the telecommunications infrastructure to offer data services, which put an added strain on the already pressured network. The low cost of using these over-the-top services means subscribers are less likely to use operator services, such as SMS and voice (Ericsson, 2014).

2.3.2.2 Shareholding Structure in Ghana’s Mobile Industry

Synonymous with developments in Africa, the majority of the mobile operators in Ghana are owned or controlled by foreign players. As stated by Ware (2012), the telecommunication boom has largely been a foreign affair event even though local companies have proved to be strong competitors in Nigeria and South Africa.

This strong involvement by global players is a function of the consolidation process of recent years. The world’s biggest operators facing market maturity, cutthroat competition and slower growth in their more established markets have turned their attention to the opportunity in Africa (pwc, 2011).
As shown in Figure 2.2, with the exception of Vodafone and Airtel, all the mobile companies operating in Ghana are wholly foreign owned. In August 2008 Vodafone acquired a 70% stake in Ghana Telecom from the Government of Ghana and subsequently rebranded it as Vodafone with the Government of Ghana retaining a 30% stake in the business. In 2008, Zain acquired 75% of the unused license of Westel. Zain was subsequently acquired by Bharti Airtel and rebranded as Airtel Ghana in 2010. The Government of Ghana remains a shareholder in the company, with a 25% holding through the Ghana National Petroleum (pwc, 2011). Expresso Ghana is wholly 100% foreign owned by Dubai based Expresso Telecom. Mobile Telecommunications Network (MTN) is also 100% foreign owned by the South Africa based MTN. Tigo is 100% foreign owned by the Millicom International while Glo Ghana is also 100% wholly foreign owned by Globacom Nigeria (pwc, 2011). Ware (2012) suggests that these developments serve as a testimony to the potential of the market since only a few years ago there was scarcely any foreign investment in the mobile market. According to Ware (2012), the downside to this is, however, that most of the profits are actually exported in the form of dividends and management fees, and these do not really benefit the country per se.
2.3.2.3 Market Share and Performance in the Mobile Industry

Deregulation and reduced entry barriers into the Ghanaian mobile industry have led to intense competition as the number of operators swell up to contend for market share (Frempong, 2002).

Table 2.2: Trends in Mobile Subscription and Market Share

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTN</td>
<td>8,000,946</td>
<td>8,721,249</td>
<td>10,156,112</td>
<td>11,734,500</td>
<td>12,920,225</td>
<td>13,852,398</td>
</tr>
<tr>
<td>Vodafone</td>
<td>2,132,119</td>
<td>2,722,364</td>
<td>4,275,521</td>
<td>5,259,487</td>
<td>6,048,792</td>
<td>7,069,516</td>
</tr>
<tr>
<td>Tigo</td>
<td>3,420,354</td>
<td>3,999,262</td>
<td>3,921,754</td>
<td>3,698,409</td>
<td>4,021,225</td>
<td>4,133,760</td>
</tr>
<tr>
<td>Airtel</td>
<td>1,293,238</td>
<td>1,754,259</td>
<td>2,625,705</td>
<td>3,192,154</td>
<td>3,395,263</td>
<td>3,735,656</td>
</tr>
<tr>
<td>Glo Mobile</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,568,014</td>
<td>1,498,011</td>
<td>1,450,382</td>
</tr>
<tr>
<td>Expresso</td>
<td>262,259</td>
<td>258,967</td>
<td>186,751</td>
<td>165,853</td>
<td>133,663</td>
<td>119,059</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Share (%)</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTN</td>
<td>52.03</td>
<td>50</td>
<td>47.35</td>
<td>45.80</td>
<td>46.13</td>
<td>45.63</td>
</tr>
<tr>
<td>Vodafone</td>
<td>13.87</td>
<td>15.6</td>
<td>19.93</td>
<td>20.48</td>
<td>21.44</td>
<td>23.29</td>
</tr>
<tr>
<td>Tigo</td>
<td>22.24</td>
<td>22.9</td>
<td>18.28</td>
<td>14.40</td>
<td>14.35</td>
<td>13.62</td>
</tr>
<tr>
<td>Airtel</td>
<td>8.41</td>
<td>10.1</td>
<td>12.24</td>
<td>12.46</td>
<td>12.05</td>
<td>12.30</td>
</tr>
<tr>
<td>Glo Mobile</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6.10</td>
<td>5.5</td>
<td>4.78</td>
</tr>
<tr>
<td>Expresso</td>
<td>1.71</td>
<td>1.4</td>
<td>0.87</td>
<td>0.64</td>
<td>0.48</td>
<td>0.39</td>
</tr>
</tbody>
</table>

Source: NCA (nca.org 2015)

For the past decade, the mobile industry in Ghana has witnessed a tremendous increase in subscriber growth rate as evident in Table 2.2. From a meagre figure of 2000 subscribers in 1994, mobile subscription increased to 17,436,949 in 2010 (Koi Akrofi, 2013). Subscriber numbers of 30,360,771 for 2014 as shown in Table 2.2 represent a penetration rate of almost 113.37% of Ghana’s estimated population (National Communications Authority, 2013). Subscriber growth rates eased in 2010 with year-on-year growth hitting the lowest level in 2010 at only 15.4% over the previous year (Tepppeh, 2010). Anecdotal evidence attributed the slump to the SIM card registration exercise mandated by the regulator, National Communications Authority. Table 2.2, however, clearly establishes the point that since 2011 there has been an upsurge in the growth of mobile subscription with year on year performance rising again.
Evidence in Table 2.2 reveals that MTN has maintained its market leadership position at the end of 2014 with a subscriber base of 13,852,398, representing an almost 46% market share. However, consistently, its market share as shown in Table 2.2 has dwindled from 52% in 2009 even though its actual subscriber number has more than doubled within the same period.

Table 2.2, shows that since 2011 Vodafone has overtaken Tigo as the number two in the mobile market ending 2014 with 7,069,519 subscribers, which represents 23% of the market share. Undoubtedly, the takeover and rebranding of Onetouch to Vodafone has contributed to this development and made it one of the best performers in the mobile telecommunication industry. Since 2009 Vodafone/Onetouch has experienced a consistent increase in its subscriber base and market share and is the only mobile company yet to experience a reduction in its market share.

Table 2.2 also clearly establishes the fact that Tigo, which over the years was the number two in terms of subscribers, has lost pace with the market and since 2011 has been overtaken into third position by Vodafone and is gradually being closed on by Airtel. As evident from Table 2.2, with a subscriber base of 3,420,354 representing 22.24% market share in 2009, Tigo ended 2014 with a subscriber base of 4,133,760 representing about a 14% market share. It is, however, noticeable from Table 2.2 that, even though its market share has been decreasing, its subscriber base keeps increasing.

In Table 2.2, Airtel has been one of the best performers in the mobile market. From a paltry 8.14% market share and a subscriber base of 1,293,238 in 2009, it has consistently been increasing its subscriber base and market share with the exception of 2013 where there seemed to have been a dip in performance over 2012 with a subscriber base of 3,395,263 and market share of 12.05%. However, it seems to have picked up again in 2014 with a marginal increase in its subscription numbers of 3,735,656 and market share of 12.30%.
Glo Mobile, which only entered the market almost half-way through 2012 performed remarkably well in their first year with a subscription number of 1,568,014 and a respectable market share of 6.10%. However, since then, as evident in Table 2.2, their performance has dipped, ending 2014 with a subscriber number of 1,450,382 and a market share of 4.78%.

Loss of market share is nothing new to Expresso. Evidence from table 2.2 shows that the company has consistently been losing market share, ending 2014 with 119,059 subscribers representing less than 0.5% of the market share from a subscriber base of 262,259 and a market share of 1.71% in 2009.

2.3.2.4 Prefix Number Codes for Mobile Operators

As is the norm in the telecommunications industry, all cell phones are designated with their own prefix number pattern, so the caller immediately knows which mobile operator number is being dialed and how much cost is being incurred. The prefix number is the first set of digits of a telephone number, which shows which network the number is from (TechPort, 2011).

Table 2.3: Number Codes for Mobile Operators

<table>
<thead>
<tr>
<th>Mobile Operator (Current Name)</th>
<th>Prefix Code Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tigo Ghana</td>
<td>027, 057</td>
</tr>
<tr>
<td>Expresso Ghana</td>
<td>028</td>
</tr>
<tr>
<td>MTN Ghana</td>
<td>024,054</td>
</tr>
<tr>
<td>Vodafone Ghana</td>
<td>020, 050</td>
</tr>
<tr>
<td>Airtel Ghana</td>
<td>026</td>
</tr>
<tr>
<td>Glo Mobile</td>
<td>023</td>
</tr>
</tbody>
</table>

Source NCA (nca.org, 2013)
Table 2.3 shows that Tigo, MTN and Vodafone have two prefix number codes, while Expresso, Airtel, and Glo each uses one prefix number. MTN commenced operations in Ghana using the 024 prefix code number. However, in 2009 it became the first mobile telecommunications operator to launch another prefix number 054 to complement its 024 number. The Chief Executive of MTN, Brett Goshen, indicated that the new code was to give potential customers a chance to enjoy MTN’s services as its 024 code was fully utilised.

Subsequently, Tigo launched another block of 057 prefix numbers in addition to its existing 027 prefix numbers in 2011. The launch, according to Tigo, was due to the ever-growing patronage of its products and services by the general public. Industry analysts anecdotally assumed that the timing of the release of the 057 numbers was strategic as Mobile Number Portability (MNP) was set to be introduced in July, 2011. However, Carlos Ceceres, former Tigo Ghana Chief Executive Officer, intimated that he did not expect the Mobile Number Portability to have any significant impact on the mobile market share and the reason for the launch was to provide better services to their customers.

The last mobile company to launch an additional prefix number was Vodafone which in 2012 added 050 to its existing number of 020. Uche Ofodile the then Chief Marketing Officer of Vodafone indicated that this was done in response to burgeoning customer demand for their products and services. The launch, she emphasized, was expanding the Vodafone family and was an expression of their commitment to deliver unbeatable value across both of the numbers’ range.

### 2.3.3 Key Developments in the Mobile Industry

#### 2.3.3.1 Deployment of Fibre Optics Cables

A major development in the mobile telephony industry is the deployment of fibre optic cables by some mobile telecommunication operators. Currently, four companies have terminated their fibre optic cables in Ghana. The first was the US$650m SAT-3/WACS spearheaded by TelKom South Africa and partnered by Ghana Telcom (Vodafone
Ghana) which invested US$24-million into the project and started operating the SAT-3/WASC fibre in 2002 (Osiakwan, 2008). Glo Mobile Ghana also successfully launched its Glo-1 Submarine cable in 2009. MTN was the next to deploy fibre optic cable with the launch of its 14,500 kilometre West Africa Cable System (WACS) submarine cable. The 5.2 terabit design capacity cable was then the largest design capacity submarine cable system to land on the African continent. Expresso was the fourth mobile company (but third individual operator in Ghana) to have landed a submarine fibre optic cables known as Africa Coast to Europe (ACE) optics cable system. This is owned by a consortium of seventeen mobile telecommunications companies operating in Africa. The ACE cable project, which cost $700 million and stretches 17,000km, was launched in Ghana on 10\textsuperscript{th} May 2013.

Analysts, telecom operators and government officials have already expressed optimism that the new cables will spur internet and broadband capabilities as well as push information technology to new heights. These cables promise to provide enormous benefits not only to the telecommunications sector but also Ghana’s economy in general. As expressed by management of Expresso, “the cable will promote internet usage and increase internet penetration in Ghana through smart partnerships with local Internet Service Providers (ISPs) and will boost economic growth by contributing to Ghana’s GDP” (GCT, 2013).

2.3.3.2 Installation and Co-location of Telecom Masts

When mobile telecommunications service commenced in Ghana, the companies erected their own telecom masts to enable them to provide the desired service. However, in January 2010 the Ministry of Environment, Science & Technology (MEST) banned further erection of telecommunications masts in the country. Only licensed companies were to be allowed to build new towers, with the hope that the mobile networks will buy space from the newly licensed operators rather than build their own towers. It was also to prevent chaotic building all over the country and to placate the citizenry who were nervous about the radiation effects of these towers (Boah-Mensah, 2012a). Furthermore, even though telcos contributed one percent of their profits into the Ghana Investment Fund for Electronic Communication (GIFEC) to provide towers on which they could co-
locate their antennae, particularly in the un-served and under-served communities, the
telcos were not using those towers optimally. Infrastructure sharing was intended to
enable operators to offer value to their subscribers by lifting the pressure of operating the
passive infrastructure and providing innovative technology, a skilled workforce and
advanced equipment.

In line with this, in 2011, three tower companies, namely Helios Tower Ghana (HTG),
Eaton Towers (EA) and American Tower Company (ATC) were licensed to bring sanity
into the industry. Millicom Ghana (Tigo Ghana) commenced the whole process when it
agreed to sell 750 base towers to Helios Towers Africa. The deal was the first major
sales/leaseback to be completed by a major African telecom operator and an independent
tower company on the continent (Helios Towers Ghana, 2010). Green Charles,
c-founder and CEO of Helious Towers Africa (HTA), in justifying the outsourcing of
towers and co-location, states that the independent infrastructure sharing business is a
proven, robust model, which is best for HTA because it benefits consumers, operators
and regulators, as well as being constructive from an environmental perspective (Green,
2012). Vodafone also signed a ten year deal with Eaton Towers to take over the
operations and co-location management of its existing tower infrastructure. The deal was
reported to be worth $45 million to Eaton Towers (Eaton Towers, 2010). MTN rounded
off the deals for 2010 with their joint venture with American Towers raising $428million
for the Mobile operator (Global Telecom Business, 2010).

The tower companies were mandated to provide tower and ground space for equipment,
maintain the sites and generators, ensure co-location or shared tower space and ensure
safety and compliance with environmental and health issues. Tower companies were also
to ensure a reduction in future capital expenditure for operators, customer service levels
and contribute towards increasing the uptime of sites and more reliable power supplies.

However, the feeling among regulators was that telcos were not prepared to co-locate and
share infrastructure because of competition. The telcos however reject this indicating that
they had been co-locating. The Chief Executive Officer of Helios Towers Ghana, Rein
Zwolsman, stated that the telcos have co-located their antennae on 600 of its 700 towers
across the country (Helios Towers Ghana, 2012) while Eaton Towers Ghana’s boss, Terry Rhodes, stated that more than half of its 750 towers are co-located towers (Eaton Towers Ghana, 2012). Sakyi Addo (2012) states that telcos were committed to co-location, and they were even co-locating their underground fibre and not just antennae.

The timing for outsourcing and co-location of towers, according to Green (2012), is right because of the infrastructure investment deficit in most sub-Saharan African markets. According to him, unless telecommunication infrastructure investment in Africa increases, it will be impossible to serve the burgeoning levels of consumer demand for 2G voice, let alone the site densification required for 3G coverage, improved capacity and the rapid growth in data traffic. Also, for health and environmental reasons, communities and politicians do not want to see an unjustifiable proliferation of towers in their neighbourhoods. A solution to this cooperation and tower sharing, according to Green (2012), is necessary because this results in higher revenue from better network performance and lower churn; lower and more predictable operating costs; and less risk for operators.

2.3.3.3 SIM Card Registration

On 1st July, 2010, the NCA backed by SIM Registrations Regulations, L.I. 2006 embarked on a SIM card registration exercise which required existing subscribers and new subscribers of mobile telephony services to register their SIM cards within a year. This was in line with the Electronic Communication Act, Act 775, 2008, which mandates all telecommunication operators to keep the data of their subscribers. The aim of the exercise was to empower subscribers as bona fide owners of their telephone numbers and in turn strengthen them to demand better services. By registering their numbers, subscribers improve their chances of seeking replacement of their SIM cards in the event of loss. It was also aimed at increasing subscribers power of choice in a competitive market noting that one of the reasons for the registration exercise was to pave the way for the introduction of Mobile Number Portability (MNP) (NCA 2012a). At the end of the exercise on 30th June 2011, the NCA announced a 90-day mop-up to enable subscribers who did not abide by the directives to register their SIM cards and for service operators to rectify the records of subscribers whose registration details could not be validated. This
was further extended to March 3, 2012 when all unregistered cards were deactivated (NCA, 2012a). Sixteen million subscribers were validly registered during the validation period; however, 433,247 unregistered SIM cards, 1,091,645 inactive SIM cards and 1,524,891 SIM cards that had not been used for the last three months were all deactivated at the close of the registration process on March 3, 2012 (NCA, 2012b). The SIM registration is, however, not a time-bound exercise, it is an ongoing unending exercise since every new SIM card bought must be registered.

2.3.3.4 Mobile Number Portability

Due to incessant compliants by subscribers who were appalled by the poor quality of service, the National Communications Authority, introduced the Mobile Number Portability (MNP) facility into the country’s telecom sector on 1st July, 2011 with the view to offering subscribers the choice in their mobile life (Boah-Mensah, 2012b) making it a permanent part of the telecoms landscape in Ghana (NCA 2012c). Mobile Number Portability is a system where a mobile phone customer may change to a different service provider while retaining his original mobile phone number, including the old network code (NCA, 2011). It was in recognition of the fact that since 2005 growth in the total number of active mobile numbers demonstrated that the market had become competitive and that Ghanaians had come to view mobile telephony as a necessity, rather than a luxury. Even more important was the fact that a significant segment of the customer base was reluctant to take advantage of the choices available because their phone numbers would change when they open an account with another service provider with the resultant expense and inconvenience of informing all their contacts of their new numbers (NCA, 2012c).

All mobile networks are active participants in the MNP process, with customers porting in and out of every network and Ghana passing the million successful port milestone in October 2013 (NCA, 2014). Within a year of its implementation, 370,107 subscribers had taken advantage of it (NCA, 2012c). By the third year of operation, 1,655,404 porting requests had been successfully completed with the third year total of 838,202 representing an 87% increase over the second year (NCA, 2014). The NCA (2014) states that the total number of completed ports from launch until 30th June, 2014 is
approximately 6% of the total active mobile numbers in Ghana, which far exceeds any other MNP implementation in sub-Saharan Africa. The speed of processing porting, according to the NCA (2014), has increased significantly. They indicate that the process for completing porting after request by June, 2014 was 4 minutes, 16 secs, with 91% completed in 5 minutes or less and 67% completed in 2 minutes or less.

Table 2.4: Figures at the End of Three Years of Mobile Number Portability (MNP)

<table>
<thead>
<tr>
<th></th>
<th>Airtel</th>
<th>Expresso</th>
<th>Glo</th>
<th>MTN</th>
<th>Tigo</th>
<th>Vodafone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Gain/Loss</td>
<td>(58,687)</td>
<td>(858)</td>
<td>(16,119)</td>
<td>(402,244)</td>
<td>249,725</td>
<td>228,183</td>
</tr>
<tr>
<td>% of Base</td>
<td>-1.7%</td>
<td>-0.6%</td>
<td>-1.2%</td>
<td>-3.0%</td>
<td>6.2%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

Source: NCA (2014)

Table 2.4, indicates that at the end of the third year of MNP, Airtel had a net loss of 58,687 representing -1.7% of base; Expresso had a net loss of 858 representing -0.6% of base; Glo had a net loss of 402,244 representing -3.9% of base; Tigo had a net gain of 249,725 representing 6.2% of base; and Vodafone had a net gain of 228,183 representing 3.4% of base. Tigo and Vodafone made the greatest gains by far during this three years period.

The introduction of this technology has brought about an increased level of freedom and flexibility for customers. It has reduced the concept of multiple-SIM phenomenon because customers can change their service providers without changing their phone numbers (Larkotey et al., 2012).

2.3.3.5 Mobile Data/Internet Access

The mobile telecommunications market in Ghana in recent years has seen a boom in usage in mobile data services accessed via smartphones, tablets and dongles. In developed economies, mobile data has changed consumer expectations for wireless services products and has transformed the way in which people connect and work, which has the potential to further impact on economic development (Deloitte, 2012). Total mobile data usage has more than doubled on average every year from 2005 to 2010 (Deloitte, 2012); and this, according to them, has the potential to transform the way in
which consumers and businesses operate and communicate, and as such increase economic growth through increased productivity.

For developing markets, however, Deloitte (2012) states that basic mobile services still dominate and mobile data is the next wave of advancement. In Ghana, due to the limited coverage of fixed line networks and the associated cost of computers, mobiles are quickly becoming the main platform for internet browsing. Currently, mobiles as a preferred platform for internet browsing, according to Deloitte/GSMA (2012), are 21.8% which is well above the world average of 10%, making the country a leader in mobile versus fixed internet browsing. Deloitte /GSMA (2012) project that given the low penetration of fixed lines, mobile internet has the potential of driving connectivity in the region at lower costs and is expected to increase four times between 2012 and 2016.

If, as stated by Deloitte (2012) that a doubling of mobile data use leads to an increase in GDP per capita growth of 0.5 percentage point and that there is a positive relationship between the amount of mobile data used by each 3G connection and increase in economic growth, then certainly Ghana stands to benefit enormously from mobile data/internet usage by subscribers. This effect, according to Deloitte (2012), grows linearly with the initial level of data usage per 3G connection in the country and that countries with a higher level of mobile data consumption per each 3G connection experience a larger impact on GDP per capita growth from increasing this consumption.

### Table 2.5: Mobile Broadband Subscription Trends

<table>
<thead>
<tr>
<th>Operators</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>% Share</td>
</tr>
<tr>
<td>MTN</td>
<td>4,876,302</td>
<td>47.23</td>
</tr>
<tr>
<td>VODAFONE</td>
<td>1,615,528</td>
<td>15.05</td>
</tr>
<tr>
<td>AIRTEL</td>
<td>1,915,300</td>
<td>18.55</td>
</tr>
<tr>
<td>TIGO</td>
<td>1,577,348</td>
<td>15.28</td>
</tr>
<tr>
<td>GLO</td>
<td>301,283</td>
<td>2.92</td>
</tr>
<tr>
<td>EXPRESSON</td>
<td>38,180</td>
<td>0.37</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10,323,941</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: NCA (2014)
Evidence from Table 2.5, shows that mobile data access has increased by over 50% since 2013 from a figure of 10,323,941 in 2013 to 15,805,925 in 2014. The major beneficiary has been MTN which has almost doubled its access from 4,876,302 representing 47% in 2013 to 8,000,000 representing 51% in 2014. Vodafone has overtaken Airtel to second position with 2,868,249 in 2014 representing an 18% market share from 1,615,528 representing 15% in 2013. Airtel is now in third position with figures of 2,130,033 representing 13% in 2014 from 1,915,528 representing almost 19% in 2013. Similarly, Tigo with subscriptions of 1,577,348 in 2013 representing 15% has increased subscriptions to 2,097,167 even though this represents a drop in market share to 13% for 2014. Glo, with subscriptions of 301,283 and a market share of almost 3% in 2013 has, in 2014, doubled its subscriptions to 608,424 representing a little over 4% of the market share. Expresso seems to be the only company that lost grounds both in subscription and market share with the figure 38,180 (0.37%) in 2013 dropping to 37,331 (0.24%) in 2014. Overall, MTN, Vodafone and Glo experienced increases in both subscriptions and market share; Airtel and Tigo experienced increases in subscription but reductions in market share; with Expresso being the only company that experienced a reduction in both subscription numbers and market share.

### 2.3.3.6 Harmonisation of Short Codes

The National Communications Authority (NCA), collaborating with Mobile Network Operators, has put in place measures to ensure that common customer services across all networks use uniform short codes. In this respect, all short codes for accessing services including Credit Recharge, Credit Balance, and Call Centre enquiries and other such services have been uniform for all mobile telephony consumers in Ghana irrespective of their network from 8th September, 2014 (NCA, 2014). The new short codes, according to the NCA (2014), ran concurrently with the old codes until April, 2015 in order to give consumers enough time to learn and adapt to the new codes. With the exception of depositing or retrieving Voice Mail, consumers will not be charged for using these harmonised short codes to contact service providers or perform other functions (NCA, 2014).
### Table 2.6: Harmonised Short Codes

<table>
<thead>
<tr>
<th>SN</th>
<th>Harmonised Services</th>
<th>Harmonised Codes</th>
<th>Charges</th>
<th>MTN</th>
<th>Vodafone</th>
<th>Tigo</th>
<th>Airtel</th>
<th>Glo</th>
<th>Expreso</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Call Centre</td>
<td>100</td>
<td>Free</td>
<td>111</td>
<td>100</td>
<td>111</td>
<td>121</td>
<td>121</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Credit Recharge</td>
<td>134</td>
<td>Free</td>
<td>125</td>
<td>123</td>
<td>842</td>
<td>134</td>
<td>123</td>
<td>77</td>
</tr>
<tr>
<td>3</td>
<td>Check Balance</td>
<td>124</td>
<td>Free</td>
<td>124</td>
<td>122</td>
<td>820</td>
<td>133</td>
<td>130</td>
<td>011</td>
</tr>
<tr>
<td>4</td>
<td>Porting Services (MNP)</td>
<td>600</td>
<td>Free</td>
<td>600</td>
<td>145</td>
<td>600</td>
<td>600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Verification of SIM Registration</td>
<td>400</td>
<td>Free</td>
<td>746</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>6</td>
<td>Voice Mail Deposit</td>
<td>108</td>
<td>Check with Service Provider</td>
<td>555</td>
<td></td>
<td></td>
<td>027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Voice Mail Retrieval</td>
<td>109</td>
<td>Check with Service Provider</td>
<td>555</td>
<td></td>
<td></td>
<td>735</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NCA 2014 & researcher’s compilation from mobile networks

Harmonised short codes to be used by all mobile service providers as shown in Table 2.6 are, 100 for call centres, 134 for credit recharge, 124 for checking balance, 600 for porting services, 400 for verification of SIM registration, 108 for voice mail deposit and 109 for voice mail retrieval. From the table, it is noticed that prior to the harmonization, MTN used 111 for call centre activities, 125 for credit recharge, 124 for balance check, 600 for porting services, 746 for verification of SIM registration and 555 for voice mail deposit and retrieval. Vodafone had 100 for call centres, 123 for credit recharge, 122 for checking balance, 145 porting services and 400 for verification of SIM registration. Tigo had 111 for call center, 842 for credit recharge, 820 for credit balance, 600 for porting services, 400 for verification of SIM card registration, 027 for voice mail deposit and 0 for voice mail retrieval. Airtel used 121 for call centre operations, 134 for credit recharge, 133, for credit balance, 600 for porting services, 400 for verification of SIM card registration, and 735 for voice mail retrieval. Glo used 121 for its call centre operations, 123 for credit recharge, 130 for checking balance and 400 for verification of SIM registration. Expresso used 77 for credit recharge, 011, for checking balance and 400 for verification SIM registration.
2.3.3.7 3G Penetration and Emergence of 4G

According to Deloitte (2012), as technology develops, mobile services according to Deloitte (2012), have the potential to impact on economic development further through the provision of high 3G and 4G data services accessed via smartphones, tablets and dongles that deliver mobile data services to businesses and consumers. Dowuona (2014) states that, as with developments globally all the mobile operators in Ghana have since launched 3G networks in addition to their GSM operations with some concurrently running 2Gs as well. Some have even made improvements and are advertising 3.5g (HSPDA) and 3.75G (HSPA+). The sole CDMA player, which is Expresso, has also improved to EVDO Rev A technology even though in reality the CDMA 2000 1X was already 3G as per International Telecoms Union (ITU) standards (Dowuona, 2014). According to Deloitte (2012), Ghana stands to benefit by adopting 3G because, for a given level of total mobile penetration, a 10 percent substitution from 2G to 3G penetration increases GDP per capita growth by 0.15 percentage growth. Furthermore, the increase in 3G connections, supported by the proliferation of data enabled devices, will allow for mobile internet connectivity, which will lead to a massive growth in the use of mobile data.

Ancillary to the main developments in the mobile telecommunications subsector in Ghana is the emergence of 4G technology. In June, 2013, three wholly Ghanaian-owned companies - Surfline Communications Limited, Blu Telecom Limited and Goldkey Telecoms Limited - were given Broadband Wireless Access (BWA) licenses on the 2500-2690 MHz spectrum band, which is suitable for 4G LTE (Long Term Evolution) at a cost of US$6million each (Dowuona, 2014). Even though they were given eighteen months to launch with November, 2014 as the deadline, only Surfline has launched in the capital, Accra, Blu is still doing some advocacy, however Goldkey has not witnessed any activity at all. The BWA licensees have been restricted to offering only data services for now. They have up to five years, that is 2018, to cover 60% of all district capitals in the country with data services before they could do voice service, if they so wish (Dowuona, 2014). This, according to Dowuona (2014), remains a tall order and is doubtful even if the BWA license operators can remain owned by Ghanaians.
Effectively then, there are now nine licensed telcos operating in Ghana. The question now being raised is whether there are not too many operators already for a population of 27 million people (Dowuona, 2014).

### 2.3.4 Contribution of Mobile Telecommunications to Ghanaian Economy

A series of studies have found a link between mobile penetration and economic growth. Mobile phones have improved communication, social inclusion, economic activity and productivity sectors, such as agriculture, health, education and finance (Deloitte, 2012). Mobile telephony generates a positive impact on workers’ productivity, which in turn impacts on business productivity through routes, such as improved information flows on prices, quantities and quality; reduced travel time and costs; improved efficiency of mobile workers; improved job search; and promotion of entrepreneurialism (Deloitte, 2012).

There is an emerging body of research applicable to Ghana which shows that the reduction in communication costs associated with mobile phones has tangible economic benefits, improving agricultural and labour market efficiency and producer and consumer welfare in specific circumstances and countries (Jensen, 2007; Aker 2008; Aker, 2010). Sabbagh et al. (2011) argue, for instance, that a 10 percent increase in mobile penetration correlates to a 0.6 percent growth in GDP. In that vein, mobile phone providers in Ghana, while their entrance into the economy was not too long compared to other industries, have made significant impact on the growth of the Ghanaian economy by adding to jobs, both in the urban and rural areas (Kuofie et al., 2012). In addition to the direct contribution to aggregate output through value added by the industry, the industry also provides benefits to other sectors by raising labour productivity of workers (Tepeh, 2010).
Table 2.7: Socio-Economic Implication of Mobile Phone

<table>
<thead>
<tr>
<th>Social Implications</th>
<th>Economic Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote connectivity to social</td>
<td>Engine for long-term economic growth</td>
</tr>
<tr>
<td>network</td>
<td></td>
</tr>
<tr>
<td>Ability to include less digitally</td>
<td>Serving as virtual offices to carpenters, painters,</td>
</tr>
<tr>
<td>literate communities</td>
<td>electricians, small-scale trading (SMES)</td>
</tr>
<tr>
<td>Optimize the use of time irrespective of distance as a barrier</td>
<td>Liberalization of telecom services with related economic opportunities</td>
</tr>
<tr>
<td>Privacy issues</td>
<td></td>
</tr>
<tr>
<td>Learning too-new generation</td>
<td></td>
</tr>
</tbody>
</table>

Source: Koufie et al. (2012) adapted from Kamel and Farid (2007)

In Table 2.7, the adoption and diffusion of mobile phones in Ghana have social and economic implications. Socially, as portrayed in Table 2.7, much of the positive impact of mobile phone includes providing remote connectivity to social networks; inclusion of the less digitally literate in communities; offering better time management such as preventing long travelling hours; empowering communities to use their phones in fighting crimes; and using mobile phones for distance learning. Table 2.7, clearly establishes the point that mobile telecommunications provides long-term sustaining economic growth; serving virtual offices for professional traders and other skilled labour force; and offering more economic opportunities like direct and indirect high-paying jobs creation, particularly in a liberalised telecom environment (Koufie at al., 2010). As stated by Deloitte/GSMA (2012), mobile telephony generates significant economic and social benefits for consumers in sub-Saharan countries such as Ghana. The availability of mobile phones, to a large extent, has not only transformed the way consumers and businesses communicate and exchange information, but also brings significant productivity improvements to public governance, trade, health and education, thereby playing a key role in the socio-economic development of the region (Deloitte/GSMA, 2012).
2.3.4.1 Contribution to Economic Growth

The availability of mobile services generates numerous economic benefits to a country’s economy. Mobile telephony positively affects the supply side of the economy through the operations undertaken by mobile operators and actors in the wider mobile ecosystem, including providers of network services, providers of other support and commercial services, and the network of formal and informal points of sale throughout each country (Deloitte, 2012). With the advent of mobile communications, Ghana’s economic experiences tie in with the views expressed by Sabbagh et al. (2011) to the effect that in Africa a rise in GDP has coincided with gains in mobile penetration. Waverman et al. (2005) intimate that 10 more mobile phones per 100 people would increase GDP per capita growth by up to 0.6 percent points and, according to Deloitte (2012), for developing countries like Ghana, the impact is even larger with between 0.8 and 1.2 percentage points.

As a result of the investments in Ghana’s mobile industry and consumer’s rapid adoption of the innovative services, the industry has become one of the major (and growing) components of the Ghanaian economy. Telecommunication has contributed significantly to the increase in Ghana’s Gross Domestic Product (GDP) over the last decades and the prospects for the future are much greater than what is currently being witnessed (Ko Akrofi, 2013). For the past decade, the sector has grown at well over 60 percent per year, while the remainder of the economy grew between 6 and 7 percent. In 2010, mobile operators contributed approximately 9.2 percent to government income, 2 percent to the Gross Domestic Product and directly accounted for 7% of investments in Ghana (Teppeh, 2010). By the first quarter of 2011, the mobile telecommunications sector alone represented 7% of all investments in Ghana, and was responsible for 2% of Gross Domestic Product, while the sector also took some 5.3% of the total expenditure of consumers (Delta Partners, 2011).

Operators, according to Koufie et al. (2012), have invested over US$5.6billion in Ghana over the last decade and are responsible for 10 percent of all government revenues. Inflation in the mobile telecommunications industry in Ghana in the first quarter of 2012 was 0.6 percent, the lowest among all the key sectors in the country. The near-zero
growth in cost of telecommunications services in Ghana produced a stabilization effect on Ghana’s global Consumer Price Index (CPI) growth month on month. In August and September 2012, telecom’s inflation dropped even further to 0.2% (Ghana Chamber of Telecommunications, 2012). There is no doubt that the telecommunications industry in Ghana has contributed so much in terms of the growth of Ghana’s economy (Koi-Akrofi, 2013).

Even more profound is the emergence of 3G connectivity and its associated benefits. As indicated by Deloitte (2012), as mobile telephony markets become more mature, the positive impacts of basic mobile voice and texts services on growth and productivity will be evident. Whereas the impact of 2G services was significant, as more developed 3G technology replaces 2G, an incremental impact, according to Deloitte (2012), has been observed. Differential economic growth is supported as this technology changes, which allows consumers and businesses to benefit from high value wireless data and content services. As such, in developed markets, penetration, according to Deloitte (2012), has long taken place in mobile telephony whereby mobile users previously consuming standard services have been acquiring 3G connections.

While this substitution effect does not necessarily increase total mobile penetration, an economic analysis by Deloitte (2012) of the relationships between 3G connection and economic growth in developed and developing market indicates that increases in penetration of 3G services generate significant economic benefits. Countries with a proportionately higher share of 3G connections enjoy an improved GDP per capita compared to countries with comparable total mobile penetration but lower 3G penetration. For a similar absolute increase in the number of 3G connections, countries with lower 3G penetration experience a higher impact on GDP per capita growth (Deloitte, 2012). Undoubtedly, the emergence of 3G technology in Ghana’s mobile telecommunications sector, and its associated access to mobile data and internet connectivity, suggest considerable economic benefits to the country.
2.3.4.2 Employment Generation by Mobile Telecommunications

Ghana’s experience with employment generation by mobile telecommunications is rightly captured by Deloitte/GSMA (2012), which states that mobile services contribute to local employment in several ways, including direct employment by the mobile operators, employment in related industries, and the support employment created by outsourced work.

Through mobile phone diffusion in the country, the Ghanaian job market has directly and indirectly been impacted with some high-paying jobs, not just in the cities but in rural areas of the country as well (Koufie et al., 2010). In 2010, the mobile operators and certified mobile dealers employed 6000 full-time workers and 1.5 million people whose employment is related to the industry through retailing of telecom accessories and scratch cards with many other industries, such as banking, trade, commerce, media and advertising being dependent on it for revenues and efficiency (Teppeh, 2010). Because most Ghanaians use pre-paid phones, mobile phone companies had to create extensive phone credit distribution networks in partnership with the formal and informal sectors. Thus, small shops that have traditionally sold dietary staples and soap now sell mobile phone credit (airtime) particularly in small denominations. Young men and women are often found selling airtime cards in the streets. Numerous small-scale firms have also opened shops to sell, repair, and charge mobile phone handsets, either using car batteries or small generator and entrepreneurial individuals have been renting phones (Aker and Mbiti, 2010).

Throughout Ghana, one sees street hawkers, corner shops, and small kiosks with mobile phone providers’ insignia through to large retail stores of services and products of the phone providers. Services provided at these locations include buying Subscriber Identity Module (SIM) cards, buying phone units, having a phone unlocked and repairing or simply buying a new handset (Koufie et al., 2010). An encouraging economic development story is that, in 2010 Ghana’s first local mobile phone manufacturer, RLG Communications (locally owned and operated) projected that it would add to the economy with the creation of 5000 permanent new jobs in the country (Dowuona, 2010), a figure yet to be substantiated. Deloitte/GSMA’s (2012) statement to the effect that
mobile operators provide a stable source of employment for skilled workers and, through significant training and skill transfer programmes, successfully train local employees: and that skilled employment opportunities are generated in support of the wider ecosystem, aptly describes the contribution of mobile telecommunications to employment generation in Ghana.

2.3.4.3 Social Contributions of Mobile Telecommunications

According to Deloitte/GSMA (2012), in addition to the economic benefits, one of the main effects of mobile phones is their impact on wider societal issues. In Ghana, mobile telephony, by providing access to a reliable form of communication, has connected the previously unconnected and transformed the way people live their lives. The proliferation of mobile telephony has streamlined business processes, reduced cost and increased the productivity of workers, including those in the informal sector, who constitute the bulk of the national workforce (Teppeh, 2010). Mobile phones are bringing Ghanaian communities more closely together even though they are miles apart. It is also improving business to business transactions with the ability to instantly access information (Koufie et al., 2010). The telcos are visible in many sectors of the economy including health, environmental sanitation, media development and education; and are involved in various social responsibility programmes and foundations that affect the lives of people, especially the vulnerable, in society.

The presence of mobile service providers can be seen in every facet of the economic spectrum of the country. From sponsoring major sporting events, such as the 2010 South Africa World Cup tournament, the national football league; donating to underprivileged children; infusion of capital into the economy during their initial setups; sponsoring talent shows; paying millions in taxes to the government’s coffers as they operate; installation of new cell towers to expand coverage areas to expand range of connectivity; opening service centers and retail store fronts for their products; to creating the much needed high paying jobs (Koufie et al., 2010), the mobile industry is evidently visible in Ghana. The combination of the features and attributes of mobile phones in transactional activities in trade has generated strategic, relational and operational benefits to Ghanaian traders (Frempong, 2011).
2.3.4.4 Contribution to Other Industries

Many banks provide e-financial services based on mobile telephone platforms to enable customers to check previous bank transactions; obtain foreign exchange rates; request cheque books; request bank statements and balances; and purchase mobile telephone credit (Frempong, 2009). As indicated by Frempong (2009), despite these developments, financial services based on mobile platforms remain undeveloped in the country. Only a few people are aware and actually used the services. The services, according to him, are low even in the commercial and metropolitan areas of the country. In spite of this, however, he believes that the conducive and favourable macro-environment, coupled with the liberalization of the financial sector, should spur the introduction of similar services to facilitate economic development.

Undoubtedly, Ghana’s mobile phone providers, MTN, Vodafone, Expresso, Tigo, Airtel and Glo, have in different ways continued to make significant social and financial contributions in the hope of promoting economic development in the country (Koufie et al., 2010). As with other Sub-Saharan African countries, mobile banking is one such example where digital services, via mobile phone, have moved beyond urban centers to peripheral surroundings and beyond with significant uptake and usage in rural areas of Ghana. Such areas in Sub-Saharan Africa, according to Ericsson (2014), typically experience significantly more social challenges (that is unemployment, and lack of adequate and organized transportation systems) when compared to their urban counterparts. Mobile banking has thus provided consumers with cheaper access to their finances due to a reduced need to travel and the lower overall cost of using a mobile phone for financial transactions (Ericsson, 2014).

Like other sub-Saharan African countries, there is strong interest in mobile financial services. Airtel, MTN and Tigo all provide mobile money transfer services in Ghana. The patronage of mobile money continues to gain momentum in Ghana, and for the third year running the value of transactions has seen an astronomical jump from GH¢171million ($42.75m) in 2012 to GH¢2.4billion ($600m) in 2013 and to about GH¢11.6billion ($2.9billion) in 2014 (Abbey, 2015). According to Abbey (2015), the growth of the transactions value over the years corresponds with a similar trend in the volume of
transactions, which has almost quadrupled since 2012 from 30 million to about 106.4 million. Abbey (2015) quotes ITU-T to the effect that the service has achieved the broadest success in Sub-Saharan Africa, where 16 percent of adults have reportedly used a mobile phone in the past 12 months to pay bills or send or receive money. This innovation is boosting financial inclusion at all levels of society across the region. If, as indicated by Ericsson (2014) that 58 percent of mobile users in the region shows an interest in using mobile banking and mobile wallets in future, then there is the likelihood of an upsurge in this service in Ghana providing significant access to financial services in the country.

2.3.5 Service Delivery by Mobile Service Providers

Despite the significant strides made in Ghana’s mobile telecommunications service, poor quality service has dogged their operations, leading to customer complaints of dissatisfaction. Call dropping, cost to business and social relationships, and call delays are some of the complaints that have been raised by some mobile phone users (Boateng, 2013). Furthermore, the views of customers concerning the services of mobile networks include many specific complaints about the obscurity of the tariffs, their high level, widespread concerns about the poor quality of service (QoS), the lack of customer care; and for businesses, the absence of service level agreements (SLAs). Additionally, there are concerns about weaknesses in security; access to emergency services; the provision of location information; and the integrity of communications (Sutherland, 2007). Subscribers have fewer problems with mobile telephone as an enabler of economic activities than with the service itself thus problems of quality of service.

Subscribers generally feel that there is the need for mobile telephone companies to improve on service delivery. Subscribers complain about service instability (poor reception, call drops) and irregularities (including unexplained deduction of credit, especially during credit transfer) (Frempong, 2009). Mobile subscribers have thus resorted to multiple subscriptions to avoid the challenges of unexpected network failure, congestion and poor or limited network coverage (Frempong, 2009).
These factors point clearly to the need for effective regulation to ensure that mobile telephone companies comply with their license obligations (Frempong, 2009). The National Communications Authority (NCA), in a bid to enhance the quality of service by telcos, commenced enforcement of its mandated quality service (QoS) key performance indicators (KPIs) in 2011. The test of the QoS, as outlined by the NCA, focused on call set up rates, call congestion rates, and call drop rates, and is based on consumers’ perspectives of the quality of service they receive from their service provider (NCA, 2012). Pursuant to this, and based on the specified criteria, the NCA over various periods has sanctioned various telcos which were in violation of service quality standards.

**Table 2.8: Fines for Poor Quality of Service (QoS)**

<table>
<thead>
<tr>
<th>Name of Telco</th>
<th>3rd Qtr 2011 GH¢</th>
<th>March 2012 GH¢</th>
<th>Nov 2012 GH¢</th>
<th>Feb 2013 GH¢</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTN</td>
<td>300,000</td>
<td>150,000</td>
<td>180,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Vodafone</td>
<td>150,000</td>
<td>50,000</td>
<td>50,000</td>
<td>-</td>
</tr>
<tr>
<td>Tigo</td>
<td>100,000</td>
<td>50,000</td>
<td>-</td>
<td>100,000</td>
</tr>
<tr>
<td>Airtel</td>
<td>350,000</td>
<td>-</td>
<td>-</td>
<td>100,000</td>
</tr>
<tr>
<td>Glo</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>300,000</td>
</tr>
<tr>
<td>Expresso</td>
<td>300,000</td>
<td>-</td>
<td>50,000</td>
<td>100,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,200,000</strong></td>
<td><strong>250,000</strong></td>
<td><strong>280,000</strong></td>
<td><strong>900,000</strong></td>
</tr>
</tbody>
</table>

Source: NCA (nca.org, 2012, 2013)

Evidence in Table 2.8 shows that during the third quarter of 2011 five telecommunication companies were fined GH¢1.2m (equivalent of $300,000) by the National Communications Authority for providing poor quality services to their clients. The five companies, namely MTN, Vodafone, Airtel, Expresso and Tigo were each fined GH¢300,000 ($75,000), GH¢150,000 ($37,500), GH¢350,000 ($87,500), GH¢300,000 ($75,000) and GH¢100,000 ($25,000) respectively (NCA, 2012). They were sanctioned for frequent call drops, delays in call set-ups and call congestion. In March 2012, as shown in Table 2.8, MTN, Vodafone and Tigo were again fined GH¢150,000 ($37,500), GH¢50,000 ($12,500) and GH¢50,000 ($17,500) respectively for various infractions. Again in November 2012, MTN, Vodafone and Expresso were fined GH¢180,000 ($45,000), GH¢50,000 (12,500), and GH¢50,000 ($12,500) respectively for failing to meet quality standards. As recent as February 2013, as shown in table 2.9, MTN GH was
fined €300,000 ($75,000), with Tigo, Airtel, Glo and Expresso all fined GH¢100,000 ($25,000) each for poor quality service.

Besides these monetary fines, MTN was banned from selling and adding new subscribers to their network in November, 2012 because of persistent deteriorating network quality of service, a ban which has since been lifted. Suspended sanctions were also imposed on Airtel and Expresso during similar periods based on ongoing improvement works they were undertaking. Glo was fined $200,000 for failing to commence full scale operations on the approved date of April 20, 2012: a ban which has since been lifted with the launch of its commercial operations on April 29, 2012 (NCA, 2012). In customer’s view, these decisions by the NCA were steps in the right direction and were positive signals to check and ensure sanity in the market to enable consumers to enjoy good quality service and indicated the reinvigoration of the NCA to live up to its regulatory functions (Frempong, 2009). However, the Ghana Chamber of Telecommunications claimed that penalties imposed for QoS infractions were not necessarily proportionate to the infractions (GCT, 2012). Indeed, at a point, some mobile telecommunications refused to pay the penalties and only paid up after the sector Minister had threatened sanctions and the NCA decided they were not going to assist defaulting operators to clear their equipment at the ports unless they settled the penalties and commitments fully.

In the words of Sakyi-Addo (2011a), Chief Executive Officer of the Ghana Chamber of Telecommunications, Ghana was faced with third world challenges, such as power outages, cable and diesel theft, fibre cuts, resistance to the siting of towers in some suburbs, and others which the telecom operators had very little control over, and yet, those were largely to blame for the quality of service breaches for which telecom operators were being fined heavily. Sakyi-Addo (2011b) further states that, if mobile operators paid all the penalties that are charged but the fundamental problems are not resolved, the regulator would only succeed in collecting revenue, but the underlying problems which undermine the quality of service will remain.
2.3.6 Challenges Confronting Telcos in Service Delivery

The Ghana Chamber of Telecommunications (GCT) has indicated that they are confronted with several challenges that invariably affect their ability to deliver the desired service standards. Ikpoki (2011) states that despite the tremendous growth and development experienced in Ghana’s mobile sector, it is also plagued with huge challenges. These challenges include: entrenched position and posturing by key stakeholders exacerbated by a perception of the industry as a “cash cow”; pressure from increased taxation and levies; increasing utility rates not matched by service improvement; permitting delays; and community activism against telecoms infrastructure and exogenous disruption to networks infrastructure, such as fibre cuts contributing to QoS problems. These challenges, according to Sakyi-Addo (2011a), if not addressed, will impede the achievement of government’s universal access and service policy goals of providing and enhancing access to quality broadband internet and other communication services to all citizens of Ghana, particularly those living in under-served communities.

According to Sakyi-Addo (2013), challenges such as current power disruptions which cause equipment failure; land litigation; breaking of cables by contractors; theft of cables; high fees charged by landowners; high and discriminatory taxes; and bottlenecks in rolling out telecommunication infrastructure affected the capacity of telcos to expand their services, which in turn affected service quality.

2.3.6.1 Electricity Failures

Regarding electricity failure, Sakyi-Addo (2013) states that electricity, which constitutes 50% of an operator’s operational expenditure, has been inadequate. The lack of electricity and fluctuations when power is available also affect equipment and consequently the quality of service. However, the Consumer Protection Agency (CPA) disagrees with the explanation by the telecommunication companies, saying their services were poor before the electricity load shedding began in 2013 (Boateng, 2013).
2.3.6.2 Cable Cuts and Thefts

Cable cuts attributed to infrastructure developments, (including road construction, laying of cables for electricity and water), illegal mining activities and theft, among others have been a major challenges faced by mobile telecommunications companies (Sakyi-Addo, 2011b). In 2012, there were over 1600 cable cuts, triple the total number recorded in 2011 resulting in significant repair costs in excess of GH¢20m. In 2013, telecommunication companies in Ghana experienced a depressing 30 percent increase in cable cuts, according to the GCT (2014). Two thousand one hundred and ten (2110) cable cuts were recorded in 2013 compared to 1605 in 2012 and 480 in 2011 (GCT, 2014). Three quarters of the cuts, according to the Ghana Chamber of Telecommunications (2014), occurs during road construction, followed by small-scale illegal mining, which is responsible for 10 percent of cuts. The rest, they indicate, are due to theft, vandalism and bushfires. These cuts translate into costs of US$140,000 a month to repair each cable, plus revenue losses to operators and government due to the inability of subscribers to access the network, and above all, the damage to the reputation of operators by justifiable furious subscribers (Sakyi-Addo, 2011a). In response to this, the Ghana Chamber of Telecommunications and Association of Road Contractors (ASROC) agreed to engage in a joint sensitization programme to minimize cable cuts that are obstructing network availability (Ghana Chamber of Telecommunications, 2013) the impact of which is yet to be fully felt.

Some mobile telecommunication companies are, however, experimenting with the construction of overhead cables. Roshi Motman, Chief Executive Officer of Tigo, recently cut the sod for the construction of a 360-Kilometer overhead fibre project to improve network quality between the Western and Ashanti regions (Mensah-Tsotorme, 2014). It is the hope that the project would put an end to network interruptions due to frequent fibre cuts from ongoing road construction works and the activities of illegal miners in both regions. Again, it was also part of Tigo’s investment strategy to build a reliable and resilient network and by so doing enhance network quality which they consider fundamental to customer satisfaction and loyalty (Mensah-Tsotorme 2014).
2.3.6.3 Arbitrary and Exorbitant Taxes

The worst of the challenges is the additional taxes and levies placed on telecom operators by various Metropolitan, Municipal and District Assemblies (MMDAs) and other agencies like the Environmental Protection Agency, Town and Country Planning, Civil Aviation and others with respect to mounting infrastructure to offer service and also do outdoor advertising (GCT, 2012). These for them are not only discriminatory, but also exorbitant. This is not surprising considering the fact that mobile taxation is higher than the global average in 18 African countries including Ghana, and taxation on mobile telephony in Africa has increased in the last five years (Deloitte/GSMA, 2011a). The average tax of mobile services has increased from 17.30% since 2007, up to 18.04%. Previous GSMA studies indicated that mobile telecommunication taxes were disproportionately high in many developing countries and increasingly being used by governments to raise revenue, negatively affecting the benefits for consumers of competitive price decreases.

In response to the 2008 global economic crisis, governments seeking to cover budget deficits often turned to growing telecommunications service usage as a source of increased tax revenue (Deloitte/GSMA 2011a). Not surprising mobile operators in Ghana are confronted with some of these taxes.

Mobile operators in Ghana also face discriminatory charges by the Municipal Ministries and District Assemblies (MMDAs) in their effort to deploy infrastructure to deliver on the quality service standards they signed up to in comparison to other sectors such as insurance and commercial companies. MMDAs, for example, charge telecom operators for each mast they mount, in addition to paying for business operation permits yet they do not charge Electricity Company of Ghana for mounting pylons to distribute power (Sakyi-Addo 2011a). In some cases, according to Sakyi-Addo (2011a), what the MMDAs charge per mast is way above what some companies pay for their entire business operation permit. These taxes are in addition to the general and mobile specific taxes that apply to telecommunications services in Ghana including, Value Added Tax (VAT) of 12.5%; National Health Insurance Levy of 2.5%; Corporation Tax of 25%; Communication Service tax (CST) of 6% and the payment of four annual regulatory
fees/levies of 1% of net revenue (4% altogether) (Deloitte/GSMA, 2011b). For example, in June 2008, the Government of Ghana imposed a 6% Communication Service Tax (CST). The import of the imposition of this tax was to increase government’s revenue to support youth employment and other development programmes.

The government intimated that its decision to impose the excise duty on airtime was based on its failure to adequately levy importation of mobile handsets into the country (National Communications Authority, 2009). The underlying rationale seems plausible but it might have a negative effect on the pricing of mobile telephone services in the country as mobile consumers are likely to bear the brunt of this levy (Frempong, 2009). The Government again imposed a 20% import tax on Subscriber Identification Module (SIM) cards used by the various telecommunications in 2012. The tax is based on 2010 copyright law, which requires companies to pay a 20% import tax on all devices with the capacity to hold downloaded copyright works such as books; audio music; videos; photographs and other audio/visual materials. However, as argued by Sakyi-Addo (2012) no mobile operator allows or facilitates copying of copyright material on to SIM cards so the idea of the law is completely irrelevant. Indeed Deloitte/GSMA’s report for 2012 established that, in Ghana, mobile taxation, as a proportion of total cost of mobile ownership (TCMO), is 22.01%, which is a little above the regional average of 19.32%.

Taxation policies have a significant impact on the value that societies derive from mobile telecom services as they affect the key factors that determine the success of telecom and the benefits to economies and societies. Reducing taxation can enhance the evolution from basic mobile consumption (access, usage with widespread coverage) to the complementary skills and assets, e.g. quality of usage, largely driven from the potential of wireless internet through mobile devices (Deloitte/GSMA 2011a). Increasing taxation, according to Deloitte/GSMA (2011a), risks reducing the economic and social benefits generated by mobile communications and risks endangering the development and uptake of wireless broadband services. Governments have a major role to play in supporting mobile communications and wireless broadband developments. Mobile taxation represents a barrier to consumers’ access to telecom services. Increasing telecommunication costs also reduces business efficiency (Deloitte/GSMA, 2011a). As
further established by Deloitte/GSMA (2011a), even small cuts in taxes attract significantly more mobile users.

However, as a result of Ghana Chamber of Telecommunication’s (GCT) engagement with the NCA and the Ministries of Communication and Local Government and Rural Development, the industry’s disputes with MMDAs over discriminatory and exorbitant business operating permit fees or charges for telecoms and associated infrastructure have been resolved with new guidelines in operation until 2014, with a formula for calculating reviews beyond that date (Sakyi-Addo, 2013). Clearly, these have begun to yield some positive dividends.

2.3.6.4 Reduction in Average Revenue Per User (ARPU)

Telecom operators have recently been expressing concerns about the rising operational expenditure (OPEX) and dwindling revenue even though the subscriber base keeps rising. Tariffs have dropped consistently (unlike any other sector in Ghana), even as the cost of inputs has kept on rising (Sakyi-Addo, 2012). Sakyi-Addo (2011a) further states that there is a common assumption that mobile phone companies are making excessive profits. However, according to him, nearly 40 percent of all the revenues goes to the Government, and another 40 percent is re-invested. Meanwhile, by 2011, the average revenue per user had dropped over 35 percent since 2008 because of competition. Margins, according to him, are shrinking. Deloitte/GSMA’s (2012) indicates that, in Ghana, between 2009 and 2010 price per minute fell by 10% and average revenue per user between 2001 and 2011 decreased, on average, by 80% as a result of increased competition and due to lower incomes of consumers gaining access to mobile services. Since 2004, mobile call charges have been falling generally and significantly for on-net calls. Although off-net call charges have now fallen, in the past this was an important issue affecting inter-network communications and fuller use of mobile telephony services in the country. It has led to a situation where some users subscribe to multiple networks, which make it difficult to have an accurate picture of actual penetration levels in the country (Frempong, 2009).
In dollar terms, revenue grew at an annual compounded growth rate of 3.7 percent and the average revenues per user also tumbled by 23.4 percent in the 2007-2010 period (Teppeh, 2010). Between 2008 and 2010, the average revenue per user (ARPU) fell 35.6 percent from GH¢14.7 (equivalent of $3.68) in 2008 to GH¢9.5 ($2.38) in 2010. Over the same period, the industry had invested over $300 million in upgrading and providing infrastructure for the 3G services across the country (Teppeh, 2010). According to Delta Partners, as at 2011 when phone penetration was above 80%, ARPU dropped further to about GH¢6.00 ($1.50). Southwood (2006) argues that mobile operators have not got to the bottom of the price elasticity curve, therefore prices could still come down. However, the high growth in mobile subscribers, according to Teppeh (2010), has more than offset the downward pressure that falling average revenue per subscriber has had on revenue figures. Again, as the mobile market is approaching saturation point, mobile operators have started to invest heavily in data services to mitigate the declining average revenue per subscriber (ARPU) for voice. As further intimated by Francois-Xavier (2009), the absence of a handset subsidy and the prepaid model are the main factors behind mobile operators’ capacity to generate decent margins, and thereby offset the negative effects of the reduction in APRU. He considers this an absolute necessity for operators as they invest massively in emerging countries like Ghana often with high risks.

2.3.6.5 SIM Box Fraud

Another major challenge confronting the telcos is simboxing. This is a process in which some international calls coming into a country are terminated through local SIM cards fixed into some electronic boxes called SIM boxes (Ghana Chamber of Telecommunications, 2012). By so doing the fraudsters pay local rates after their cohorts abroad have collected the international rates from the telecom companies that originated the call overseas. In 2009 alone, SIM box denied Ghana government an estimated US$5.8 million in taxes per month, and at the global level it denied the telecom industry some US$150 million in 2010 (Ghana Chamber of Telecommunications, 2012). Currently, the Government of Ghana and telecom operators are said to be losing about $40 million annually through SIM box fraud (Mensah, 2014). To resolve the issue, the Government passed the Electronic Communications Amendment Act 786, 2009, which fixed the tariff for inbound international call at 19 cents per minute, out of which 6 cents is for
government and 13 cents goes to the telecom operators. Due to the fixed rate, the Government of Ghana raised some $64 million in 2011 from the taxes.

The telcos, however, argue that the 19 cents fixed rate is rather encouraging SIM Box fraud because it is high compared to the lowest flat call tariff. In their view, the fraudsters are able to make money even if they charge less than 19 cents and terminate the call at only 8.4Gp (2.1 cents). The telcos therefore argue that reducing international call rates to the level of domestic call rates will automatically drive out SIM box fraudsters as it has in other countries like Nigeria. The National Communications Authority, however, argues that while 19 cents may be an attraction for SIM Box fraudsters, the NCA cannot reduce international call rates to the level of domestic call rates, adding that the telcos in Ghana are now getting an assured 13 cents per minute of international call, and the government is getting an assured 6 cents for national development. However, industry watchers such as Deloitte/GSMA (2011b) state that imposition of the Surtax on International Inbound Call Termination (SIIT) sets compulsory prices for international termination and is akin to imposed price fixing which appears inconsistent with the recent move towards liberalisation of telecommunications in Africa. Indeed, when the SIIT was introduced in Ghana, prices rose by 58% and one mobile network operator (MNO) reported that revenue from inbound traffic fell by 12% in the first six months after the SIIT was imposed. Another mobile network operator (MNO) reported a 35% decrease in international call minutes terminated on its network in the month after the imposition of SIIT compared to the month prior to its introduction. The same operator also reported an 18% fall in call minutes in the six months after its introduction compared to the previous six months (Deloitte/GSMA, 2011b).

SIIT, it is felt may create a number of unintended negative consequences for local operators, local consumers and local businesses and in the long term might also have negative implications for governments through its impact on economic activity, tax revenue and local employment (Deloitte/GSMA 2011b). In the view of Deloitte/GSMA (2011b), to avoid these negative effects on local operators, local consumers and local businesses, the government could consider undertaking a comprehensive review of whether the benefits of this taxation exceed the potential negative impact and possibly
return to the process where prices for international termination services are allowed to be set through the interaction of operators in a competitive market.

The Government of Ghana, in a bid to resolve the challenges associated with the SIM Box fraud, has requested the telecommunications companies to present proposals for amendments to the Electronic Communication Amendment Act (Act 786), which currently mandates all the operators to charge to chrg 19 cents, of which the government retains six cents (Mensah, 2014).

2.4 Summary of the Chapter

This chapter of the study has provided an understanding and appreciation of the context within which the study is being undertaken. It reviewed developments within the global telecommunications industry, the mobile telecommunications industry in Africa, West Africa and special attention given to Ghana’s mobile telecommunications industry. From all indications, the mobile telecommunications industry has entered an era of total competition worldwide. In Ghana, the story is no different. Over the past few years, it has become one of the fastest growing industries in Ghana. With penetration rates at unprecedented levels, competition is intense with the telcos jostling for space and market share. Besides making significant contributions to the economic development of the country, its impact socially has also been enormous.

Through various institutional and regulatory regimes, activities in the country’s mobile telecommunications industry have largely been streamlined. Various policy initiatives have also been carried out enhancing the levels of service delivery to customers. Howbeit, the industry providers are bedeviled with a myriad of challenges that, if not addressed, could derail some of the achievements made so far. An appreciation of the context of Ghana’s mobile telecommunications industry provides a basis to understand the strategies being adopted by the key players to edge each other other out. As the competitive environment becomes increasingly fierce, the important issue the sellers face is no longer just to provide excellent quality products or services, but also to keep loyal customers who will contribute long-term profits to organizations.
The next chapter of the study reviews relevant literature on market orientation, examining the antecedents, dimensions and consequences of marketing orientation as espoused in extant literature.
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59


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61


CHAPTER THREE
LITERATURE REVIEW

3.1 Introduction

This chapter reviews the literature relevant to the study. Specifically, it provides a clarification of the market orientation/marketing orientation terminologies; the evolution of the marketing concept/orientation; antecedents of market orientation; consequence of market orientation; and a dyadic assessment of market orientation.

In today’s extra-ordinary competitive environment, private as well as public organizations’ success requires purposeful adaptation and accommodation to change. Researchers have identified market orientation as a key ingredient in an organization’s successful adaptation to environmental changes and challenges (Dwairi et al., 2012). The subject of market orientation has been of great interest to both practitioners and academicians to help organizations manage their environment and perform well (Stoelhorst and Raaij, 2004). It has remained a pivotal theme of published works not only in the marketing literature, but also in strategic management (Malik and Naeem, 2009). It lies at the core of marketing philosophy and has been one of the extensively studied constructs in the marketing discipline since the early nineties (Stoelhorst and Raaij, 2004).

Central to the interest in market orientation is the potential influence it may have on the performance of organizations (Jaworski and Kohli, 1993; Slater and Narver, 1995; Aziz and Yassin, 2010; Sandvik and Sandvik, 2003; Jaiyeoba 2011; Zebal and Goodwin, 2011). A large body of research conducted in the United States and other developed countries has conceptually and empirically supported the notion that market orientation has positive correlations with performance of organizations (Narver and Slater, 1990; Jaworski and Kohli, 1993; Kara, 2005; Kirca et al, 2005; Dauda, 2010). Malik and Naeem (2009) intimate that more recently studies on market orientation have been conducted in diverse contexts, such as in small businesses (Pelham, 1999, 2000) and across various industries and countries - Selnes, Jaworski and Kohli (1996); (Denmark, Norway and Sweden); Bluian (1997) (Saudi Arabia); Hooley, et al. (2000) (Hungary, Poland and Slovenia); Felix and Hinck (2005 (Mexico); and Elg, ( 2008) (Finland).
However, most of the existing studies on market orientation have been conducted in the United States and other Western business settings and have had a domestic market focus (Greenley, 1995; Hinson and Mahmoud, 2011; Mahmoud, 2011). Thus, although market orientation literature has taken a step towards internationalizing the concept, systematic studies on market orientation in developing country context are lagging behind. This shortage exists in spite of the fact that many developing country’s economies and markets have been converting to free market economies and can provide appropriate grounds for robust tests for the association of market orientation and performance (Harris, 1999).

Jaworksi and Kohli (1993) argued that if developing countries continue implementing economic reforms, organizations need to be business oriented to grow and survive as these countries strive for economic development. Managers and policy makers in developing countries, such as Ghana will thus need guidance regarding how to start and use market orientation to increase their competitive advantage. This provides the motivation for the study of market orientation and performance in Ghana’s mobile telecommunications industry, which seeks to address the following objectives:

- Ascertain the adoption levels of market orientation in Ghana’s mobile telecommunication industry.
- Examine the gap between operators and subscribers’ perceived level of market orientation in Ghana’s mobile telecommunications industry.
- Critically evaluate (internal and external) the dimensions of market-oriented behaviour for mobile telecommunication service providers (TSPs) in Ghana.
- Examine the relationship between market orientation and business performance in the context of mobile telecommunication services in Ghana.

3.2 Market Orientation and Marketing Orientation: Clarification of Terminology

Harris (1998) states that prior to examining research into market orientation it is necessary to clarify the distinction (if any) between the terms “marketing orientation”, “market driven”, ”market focused”, ”customer orientation” and, “market orientation”.

64
Shapiro (1998) refers to his earlier work in 1988 and quotes authors like Ruekert (1992) to the effect that while fine distinctions between these phrases may exist, the terms are so close that “few important distinctions between the terms exist”. Ashour (2010) states that the debate over marketing orientation influences on achieving organizational objectives involves considerable overlapping between the definitions of marketing orientation and market orientation. Lafferty and Hult (2001) state that whilst there has been some differentiation in the literature on the use of marketing orientation versus market orientation, initially the term “marketing orientation” was adopted to refer to the implementation of the marketing concept as defined by McCarthy and Perreault (1990). Lafferty and Hult (2001) make reference to Kohli and Jaworski (1990) who stress their preference for this label suggesting that it removes the construct from the province of the marketing department and makes it the responsibility of all departments in the organization. Under this guise, a market-oriented approach is more likely to be accepted by non-marketing departments. Panayides (2004) states that to be oriented towards the function or practice of marketing is to be marketing oriented. However, to have a corporate philosophy or culture geared towards customers, competitors and the organizational links that disseminate information on both, according to him, are to be market-oriented.

Gray et al. (1998) also refer to Kohli and Jaworski (1990) and suggest that part of the problem is definitional with the terms “marketing orientation” (a business philosophy) and “market orientation” (implementation of that philosophy) often confused and/or used interchangeably in the effectiveness literature. Gray and Hooley (2002) corroborate this position when they state that although much of the research into marketing orientation has been synonymous with that concerned with examining the marketing concept (a corporate culture philosophy) and much of the market orientation research has been concerned with implementing the marketing concept and/or measuring marketing strategy behaviours, the terms “marketing orientation” and “market orientation” have been used interchangeably. Kohli and Jaworski (1990) emphasize their preference for market orientation by pointing out that although the term “marketing orientation” has been used in previous writings the label “market orientation” appears to be preferred for three reasons:
i) the label clarifies that the construct is not exclusively a concern of the marketing function and hence less restrictive;

ii) it is also less politically charged in that it does not inflate the importance of the marketing function in an organization and thus likely to be embraced by non-marketing departments; and

iii) finally, the label focuses attention on markets (that include customers and forces affecting them).

Drawing from the writings of Kohli and Jaworski (1990) and also from Narver and Slater (1990), Pitt et al. (1996) indicate their preference for the term “market orientation” when they state that the term “market”-oriented is to be preferred to “marketing”-oriented as this highlights its organization-wide application. On the other hand, a marketing orientation is seen to be specific to the activities of the marketing department or division. Zebal (2003), however, makes reference to various authors (Brown, 1987; Doyle et al., 1989; Lichtenthal and Wilson, 1992; Payne, 1998) and indicates that even though some authors have a tendency toward highlighting the distinction between marketing orientation and market orientation, to the contrary, there are still a large number of scholars who have made no distinction between the two orientations. Hence, even though much of the research into marketing orientation has been synonymous with that concerned with examining the marketing concept (a corporate culture of philosophy) and much of the market orientation research has been concerned with implementing the marketing concept and/or measuring marketing strategy behaviours, the terms “marketing orientation” and “market orientation” have often been used interchangeably.

Gray and Hooley (2002) in a bid to resolve the challenges associated with the clarification of the terminologies have attempted a more inclusive definition, which bridges both philosophy and behaviour and allows investigation of mediating and moderating variables, as well as antecedents and consequences. For them, “market orientation” is the implementation of a corporate culture or philosophy which encourages behaviours aimed at gathering, disseminating and responding to information on customers, competitors and the wider environment in ways that add value for shareholders, customers and other stakeholders.
Kurtinaičienė (2005), studying marketing orientation in the European Union mobile telecommunication markets, states “marketing orientation (sometimes called market orientation) contributes to the understanding and implementation of the marketing concept”; thus using the words interchangeably.

These various arguments clearly establish the fact that the terms “market orientation” and “marketing orientation” are so generally related that very few distinct differences exist and hence can be used interchangeably. For purposes of simplicity and ease of comprehension, this research will adopt the position adopted by authors such as Harris (1998) who use the words interchangeably.

3.3 Evolution of Marketing Concept/Orientation

Munjal and Malik (2014) intimate that the concept of marketing has not been a discovery that has taken place all of a sudden; rather it passes through a voyage of discoveries over a period of time and developed in a progressive function forming a continuum of different philosophies having the latter ones dominant over the previous one. This assertion finds support in Lafferty and Hult (2001) who state that the marketing concept and the related construct of market orientation have been important components of marketing academia and practice for several decades. Due to the fundamental importance attributed to these concepts, numerous research projects, according to Lafferty and Hult (2001), have attempted to define the constructs and explore their application and implementation in business. Emerging first in the General Electric Company in 1952, the marketing concept has been consistently redefined over the past five decades and has evolved from one concept to the other (Keelson, 2012) culminating in the various marketing orientation studies.

As emphasized by Keelson (2012), in the earlier development of the marketing concept, the role of the customer in the development of products had been minimal, until latter developments when the customer gained a centred stage in the product development decisions. The evolving concepts of marketing that have emerged over the years, according to Munjal and Malik (2014), are a manifestation of different business philosophies aimed at addressing customer needs at different time periods.
The concept of market orientation (MO) came into pragmatic scholarly research two decades back (Opeda et al., 2011). It can be traced from the conference organized by the Marketing Science Institute (MSI), Massachusetts, in 1987, under the topic: developing a marketing orientation. This was convened with the main purpose of articulating the need for a strong, scholarly research to better define measurement of the level of a firm’s market orientation; a need for understanding whether there is an optimal level of market orientation given the firm’s strategic context; and a need for thinking of market orientation as a basis of, rather than a substitute for innovation in a business firm (Opeda et al., 2011). Market orientation research has been published since the early 1990s when Kohli and Jaworski (1990), Jaworski and Kohli (1993) and Narver and Slater (1990) offered two views on the concept of market orientation, antecedents and consequences which subsequently culminated in Kohli and Jaworski’s (1990, 1993) published seminal works that provided the early conceptual framework, organizational antecedents and expected organizational consequences, of market orientation and ultimately to the development of early scales (Hafer and Gresham, 2008).

Kohli and Jaworski (1990) define market orientation as an organizational wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments and organization’s wide-responsiveness to this intelligence. Market intelligence not only pertains to monitoring customer’s needs and preferences but also includes an analysis of how customers might be affected by factors such as government regulation, technology, competitors, and other environmental forces. As indicated by Opeda et al. (2011), it mainly represents a response of firms to current and future market demand for a sustained competitive advantage. The eventual outcome of market orientation within an organization is an integrated effort by individuals and across departments, which in turn, delivers superior organizational performance.

Narver and Slater (1990) define market orientation as an organizational culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for customers and thus superior performance for the business firm. They conceptualized an organisation’s degree of market orientation as the sum total of its emphasis on five components: customer orientation; competitor orientation; inter-
functional coordination; long-term focused; and profit emphasis. Market orientation, according to Narver and Slater (1995), has three fundamental behavioural components: customer orientation; competitor orientation; and inter-functional coordination. Customer orientation is the sufficient understanding of the buyer’s value chain within end-use segments such that the business continuously concentrates on activities that will either increase benefits or decrease costs to the buyer. Competitor orientation is the on-going assessment of the value of the business offerings and capabilities relative to those of competitors, whereas inter-functional coordination means that information on buyers and competitors is shared throughout the business (Opeda et al., 2011).

In all the above definitions of market orientation, a common ground of understanding can be drawn on the basis that market oriented firms are those that are well informed about the market and that have the ability to use that information to advantage to create superior value for their current and potential customers (Raaij and Stoelhorst, 2008). Furthermore, the two conceptualizations of market orientation have strong similarities in that they all put the customer in the very heart of the definition, stress the importance of being responsive customers, and all consider interests of other stakeholders in all efforts (Dauda, 2010). Despite these common threads in the two definitions, they are conceptually different (Opeda et al. 2011).

3.3.1 Marketing Management Philosophies
Keelson (2012) states that the academic discipline has two main schools of thoughts, where marketing is considered either as a philosophy or as a function. The marketing concept, which started developing in the 1950s, considers marketing as a philosophy rather than a function and represents business thinking (Keelson, 2012). Businesses, according to Keelson (2012), have since adopted production philosophy (Ferrel et al., 2008); product philosophy (Fullerton, 1988); selling philosophy (Pride, 2002); marketing philosophy (Day et al., 1983; McGee and Spiro, 1988); societal marketing philosophy (Kotler and Armstrong, 2008); and the holistic marketing concept (Kotler and Keller, 2009). Avlonitis and Gounaris (1999) also note that firms are diverse regarding the terms adopted for orientations: “marketing oriented; product oriented; sales oriented, production oriented; or agnostics oriented.
3.3.1.1 The Production Concept

Pride and Ferrel (2008) trace the production philosophy to as far back as the 1850s through to the 1900s. This assertion is supported by various authors (Fullerton, 1988; Munjab and Malik, 2014) who intimated that the production era is commonly dated from about 1870 until 1930. This was the industrial revolution period in the United States when the country witnessed growth in electricity generation, rail transportation, division of labour, assembly lines, and mass production, which made it possible to produce goods more efficiently with new technology and the new ways of using labour (Munjab and Malik, 2014). Miller and Layton (2001) observed that in the production era, the manufacturers typically concentrated on increasing output with the assumption that customers would look for and buy, reasonably priced, and well made products.

Despite the increase in the production of goods with these emerging ways of production, there was heavy demand for manufactured goods (Pride and Ferrel, 2008). This concept, Munjab and Malik (2014) intimate dominated the understanding of the marketing in the past and held by students and scholars alike for more than a generation. As described by Fulerton (1988) it was elegant in its formulation and categorical in its implications and has fostered the widespread belief that rational, purposeful, and sophisticated marketing practice is a fairly recent development. Keeslson (2012) cites Fullerton (1988) to the effect that the production philosophy is characterized by the following:

- Firms focused their attention largely on physical production, using new technologies and more efficient management techniques to overcome age-old constraints on supply. Distribution was a secondary concern, left to independent wholesalers and retailers.
- Output consisted of limited product lines whose conception and design reflected production requirements more than research into customer needs; insight into customer needs was not crucial because demand exceeded supply; disposable income and desire for any available products grew rapidly and without pause among the broad populace and there was little competition in each product market.
As a result of all these, he states that wholesalers and retailers did not have to develop sophisticated methods because products “sold themselves” - wholesalers and especially retailers were peripheral to business enterprise, whose focus was manufacturing firms.

The production philosophy is premised on the assumption that consumers will favour products that are available and highly affordable (Kotler and Armstrong, 2008). This requires that businesses concentrate their efforts on product improvement and efficient distribution of goods. It assumes that consumers are mostly interested in product availability at low prices with the implicit marketing objective of cheap, efficient production and intensive distribution (Schiffman and Kanuk, 2009). However, as stated by Keelson (2012), the production philosophy worked for businesses in the 1950s to achieve their business objectives. Today, such a business orientation may only make sense when the objective of the company is to expand the market, because as stated by Munjab and Malik (2014), quality of product was ignored as labour was considered only as a source of production and human component of fatigue and boredom were ignored for the sake of specialization, and economies of scale were paid attention to but diseconomies of scale were ignored.

Keelson (2012), quoting Levitt (1960), states that companies with such a business philosophy today risk focusing their effort too narrowly on their own operation losing sight of the core idea of producing to meet customer expectation and needs to create customer value. Fullerton (1988) sums it up in the words of Bagozzi (1986) to the effect that “firms gave little thought to marketing” in the production era. However, where the business objective is for expansion to meet unsolicited demands, or where new products are introduced, the production philosophy might be a good complement to other dominant philosophies (Keelson, 2012).

3.3.1.2 Product Philosophy

The product philosophy was the dominant marketing philosophy at the dawn of the 1900s and continued to the 1930s. The product philosophy assumes that consumers will prefer a product based on its quality, performance and innovative features (Kotler and Armstrong, 2008). This means the company knows its product better than anyone or any
organization. Thus, the company knows what will work in designing and producing the product and what will not work. Since the company has great knowledge and skill in making the product, it also assumes it knows what is best for the consumer. The product concept compelled companies to ensure improving product quality, and introduce new features to enhance product performance as much as possible. These were done without consulting the customer to find his or her view on these product features. Yet products were produced with the customer in mind. Since the era culminated in the development of innovative products which did not have substitutes, the customer needs might not be too much a demand, since customers may not know their needs in such innovative market situation (Keelson, 2012).

In much of the product era, organizations were able to sell all of the products that they made. The success of this philosophy was due mostly to the time and level of technology in which it was dominant. The product concept survived much of the time after the industrial revolution (Miller and Layton, 2001). Since demand exceeded supply, the emphasis on production rather than the customer was quite an appropriate business thought at the time. Most goods were in short supply, meaning that companies could sell all that they made. Consequently, organizations did not need to consult with consumers about designing and producing their products. As much as some companies may still have a product oriented business thinking that direct their operations, the concept is not popular in today’s business environment. A product philosophy often leads to the company focusing on the product rather than on the consumer needs that must be satisfied (Schiffman and Kanuk, 2009), a situation Levitt (1960) refers to as marketing myopia.

The problem with this philosophy, as stated by Munjab and Malik (2014), emerged when, despite the continuous improvement and innovation, producers were left with stocks of goods. This, according to them, was because of inherent limitations in this school of thought which, according to them, research pointed out that simply producing a quality well is not enough unless the person for whom it is made knows about its presence. That is, the consumer needs to be informed and persuaded to buy a good for the sake of quality.
3.3.1.3 Selling Philosophy

The sales era, according to Munjab and Malik (2014), dominated business functions until the 1950s. It proceeded the product era and, according to Keelson (2008), has the shortest period of dominance compared to the two preceding philosophies. The emergence of the selling philosophy was necessary because of the increase in the production of a variety of goods after the industrial revolution as companies became more efficient in production. The increase in the quantity of products and types of products led to competition, which eventually led to the end of product shortages and the emergence of surpluses (Keelson, 2012). The poor economic conditions, according to Fullerton (1988), motivated some desperate firms to pursue hard selling. He cites sales manuals in use at the time such as Selling Delco Light to support this assertion.

The emphasis of the selling philosophy was to create a department to be solely responsible for the sale of the company’s product, while the rest of the company could be left to concentrate on producing the goods (Perreault and McCarthy, 1999). According to Kotler and Armstrong (2008), the orientation of the selling concept was that the company can sell any product it produces with the use of marketing techniques, such as advertising and personal selling. The concept assumes that consumers are unlikely to buy the product unless they are aggressively persuaded to do so through the “hard sell” approach (Schiffmann and Kanuk, 2009).

Kotler and Armstrong (2008) have recently noted that the selling concept takes an inside-out perspective. It starts with the factory, focuses on the company’s existing products, and calls for heavy selling and promotion to obtaining profitable sales. It focuses primarily on customer conquest-getting short-term sales with little concern about who buys or why. Despite the fact that the selling concept has almost ceased to be a preferred business orientation over time, its acceptance or rejection should not be determined by the concept itself, but the business era and the dominant business orientation. Even in the era of a market oriented philosophy, the few, organisations that deal with unsought goods such as life insurance, political parties which sell their candidates aggressively to apathetic voters, and also companies that have excess stock, according to Schiffman and Kanuk (2009), still use selling orientation successfully. This means that even though
selling might be less recognized in today’s business environment, it might not be completely abolished since it could be used in certain types of businesses (Keelson, 2012). As intimated by Miller and Layton (2001), though the marketing philosophy has become the prescription for facing competition, old habits die hard and even to date some companies still hold to the fact that they must use the hard sell approach for business success and prosperity.

3.3.1.4 Marketing Philosophy
The marketing philosophy started to dominate business orientation during the 1950s and continued until the twenty first century (Pride, 2002). This concept assumes that the starting point for any marketing process is the customers’ needs and wants, and no longer the aggressive selling. The key assumption underlying the marketing philosophy is that a market should make what it can sell, instead of trying to sell what it has made (Schiffman and Kanuk, 2009). The marketing concept focuses on the needs and wants of the buyer rather than the needs of the seller and the product. Munjab and Malik (2014) quote McKitterick (1958) to the effect that the principal task of marketing is not just persuading the customer to buy, but also to provide the needs of the customer at the right quantity and quality. This is supported by Pride (2002) who cites Shaw (1912) to the effect that goods are being made to satisfy rather than to sell and that today the more progressive businessman is searching for the unconscious needs of the consumer, and is then producing the goods to gratify them. Kotler and Armstrong (2008) note that “The marketing concept takes an outside-in perspective. The marketing concept starts with a well defined market, focuses on customer needs, and integrates all the marketing activities that affect the customers. In turn, “it yields profits by creating lasting relationship with the right customers based on customer value satisfaction”.

Keelson (2012) opines with Keith’s (1960) observation that “attention has shifted from problems of production to problems of marketing, from the product that can be made to the product the customers want made, from company itself to the market place. He also recognizes that even a good sales department cannot sell every product that does not meet customer’s needs; when customers have many choices they will choose the one that best meets their needs”.
Keelson (2012) states that despite the fact that new concepts have developed since the emergence of the marketing philosophy, the concept still reigns in creating and retaining profitable customers, which are a primary objective of business.

3.3.1.5 The Societal Marketing Concept

The societal marketing concept emerged in the 1970s and has since overlapped the marketing philosophy. The concept assumes that there is a conflict between consumer short-term wants and society’s long-run interest, and that an organization should focus on a practice that ensures long run consumer and societal welfare (Kotler and Armstrong, 2008; Kotler and Keller, 2009). The importance of this concept became eminent when the effect of business activities on the environment and society became too pronounced. It was then necessary for businesses to think of how to satisfy the market with the aim of profit, and still minimize its effects on society (Keelson, 2012).

Kotler and Armstrong (2008) consider the societal marketing orientation as the best business philosophy to be adopted by organizations. They suggest that this new concept represents an attempt to harmonise the goals of business to the occasionally conflicting goals of society. Based on this they concluded that the organization’s task is to determine the needs, wants and interest of target markets and to deliver the desired satisfactions more effectively and efficiently than competitors in a way that preserves or enhances the consumer’s and society’s well-being.

This means that the societal marketing philosophy emphasizes the need not only to consider the customer in product decisions but also his immediate environment. The appropriateness of the societal marketing philosophy is deduced from the fact that it supports a socially responsible behaviour by an organization. This philosophy, according to Keelson (2012), challenges the earlier assertion by Friedman (1962) that the social responsibility of business is to make profit. Organizations will still need to adopt this business philosophy to be able to deal with the cultural and regulatory aspects of the business environment. This means that the adoption of the societal marketing philosophy generates some factors of market orientation that foster business performance. It should be a complementary business thinking to the adoption of other business philosophies,
particularly, the marketing philosophy. Thus, whether a business is production, product, selling or marketing oriented, the interest of the society must still be given its rightful place because society is a key stakeholder in every business (Keelson, 2012).

3.3.1.6 The Holistic Marketing Philosophy
The holistic marketing concept, according to Keelson (2012), is a 21st century business thinking. The concept is based on the development, design and implementation of marketing programmes, processes and activities that recognize their breadth and interdependencies (Kotler and Armstrong, 2008). The concept suggests that the 21st century business firm needs a new set of beliefs and practices toward business operation that is more complete and cohesive than the traditional application of the marketing concept. According to Kotler and Keller (2009), holistic marketing recognizes that “everything matters” in marketing. Holistic marketing is thus based on the assumption that the approach to marketing should be the adoption of all activities of marketing. In that regard Keelson (2012) states that Kotler and Keller’s (2009) holistic marketing concept seems to be an embodiment of marketing practice rather than a concept or philosophy of business.

The holistic marketing orientation seems to dwell on just the marketing functions and not the overall activities of the organization. The concept looks at internal marketing, performance marketing, integrated marketing and relationship marketing, which are all typical activities of marketing. It fails to acknowledge other activities of business such as production, management style, organization culture and other non-marketing factors of business that make a firm business orientated. Keelson (2012) thus intimates that the holistic marketing concept should be better viewed as a summary of what effective and efficient marketing involves rather than a business philosophy, and for that matter a marketing concept, because a marketing concept means more than just marketing functions. Keelson (2012) subsequently refers to several authors (Kohli and Jaworski, 1990; Zebal, 2003; Lok and Crawford, 2004) and concludes that the holistic marketing concept is relatively not a superior philosophy that has the potential of generating the required antecedents of market orientation that fosters superior business performance, which includes non-marketing activities. He cites Kotler and Armstrong (2008) to the
effect that the holistic marketing concept is just an exaggeration of the marketing philosophy or better still the holistic marketing concept can be considered a clever combination of all the concepts that have been developed prior to it.

3.4 Different Perspectives of Market Orientation

Based on the prescribed approach to market orientation, Bunic (2007) intimates that various different perspectives have been advanced that visualized market orientation as the implementation of the marketing concept, an assertion corroborated by various authors (Lafferty and Hult, 2001; Hou, 2008; Zebal and Goodwin, 2011). Mokhtar (2009) cites Lafferty and Hult (2001) to the effect that regarding the operationalisation of market orientation, five different frameworks stand out among all the other perspectives, namely: Shapiro’s (1988) decision-making perspective; Kohli and Jaworski’s (1990) market intelligence perspective; Narver and Slater’s (1990) culturally based behavioural perspective; Ruekert’s (1992) strategic focus perspective and Deshpande, Farley and Webster’s (1993) customer oriented perspective.

3.4.1 Decision-Making Perspectives

Shapiro (1988) is credited with the decision-making perspective (Hou, 2008; Mokhtar, 2009; Hashim and Bakar, 2011; Zebal and Goodwin, 2011). These authors intimate that Shapiro (1988) conceptualizes market orientation as a set of processes touching on all aspects of the company, it’s a great deal more than the cliché getting close to the customer. Shapiro (1988), according to Hashim and Bakar (2011), sees market orientation as an organizational decision-making process. At the heart of this process is a strong commitment by management to share information interdepartmentally and practise open decision making between functional and divisional personnel. Zebal and Goodwin (2011) also reference Shapiro (1988) to the effect that he specifies three characteristics that make a company market driven as shown in Fig 3.1. Firstly, information on all-important buying influences permeates every corporate function; secondly, strategic and tactical decisions are made interfunctionally and interdivisionally; and thirdly, divisions and functions make well-coordinated decisions and execute them with a sense of commitment.
Figure 3.1: Decision-Making Perspective

| Information Permeates Corporate Function | Make Strategic and Tactical Decisions | Execute Decisions with Sense of Commitment |

Researcher’s compilation

Following from the arguments, the following key issues emerge from Shapiro’s perspective:

i) The company must understand its markets and customers.

ii) Customer information that is generated must permeate every corporate function. The information that is generated through various mechanisms such as market research reports, taped customer responses, industry sales analyses, and trade show visits by top executives is disseminated to every corporate function.

iii) A market-oriented company must possess the ability to make strategic and tactical decisions interfunctionally and interdivisionally. This is in spite of the potentially conflicting objectives that mirror differences in modes of operation.

iv) Functions and divisions must be willing to listen to each other and be encouraged to express their ideas honestly and openly. To make wise decisions, according to Shapiro (1988), functions and units must recognize their differences and be willing to utilize an open decision-making process.

v) Well-coordinated decisions must be made among the divisions and functions and executed with a sense of commitment. By joint sharing of ideas and discussion of alternative solutions, the market-oriented company can leverage its strength. Shapiro (1988) indicates that powerful internal connections make communication clear, coordination strong, and commitment high, while poor coordination can result in misapplication of resources and failure to seize market opportunities.

vi) Strength and weaknesses of competitors must also be well understood. As stated by Shapiro (1988) although these characteristics of market orientation strongly
indicate a customer focus, understanding the strengths and weaknesses of the competition is part of being market-oriented.

It is noteworthy that from Shapiro’s (1988) perspective as stressed by Mokhtar (2009), there is no meaningful difference between market-driven and customer orientations. For him, they can be used interchangeably.

3.4.2 Marketing-Intelligence Perspective

Hou, (2008), Zebal and Goodwin (2011) and Mokhtar (2009) attribute the market intelligence perspective to Kohli and Jaworksi (1990). As succinctly stated by Mokhtar (2009), Kohli and Jaworski’s (1990) formal definition for market orientation is based on three key elements - intelligence generation, intelligence dissemination and responsiveness. The market intelligence perspective of market orientation (Kohli and Jaworksi, 1990; Jaworski and Kohli, 1993; Kohli, Jaworski and Kumar, 1993) reflected on market orientation at strategic business unit level as a corporate-wide creation of market intelligence regarding customers’ current and future needs; sharing across the organization and development and execution of the response based on market intelligence (Keelson, 2012). They, as shown in Figure 3.2, proposed market orientation as an “organization-wide generation of market orientation pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it (Malik and Naeem, 2009).

Market intelligence refers to the collection and assessment of both customers’ current and future needs, plus the impact of government regulations, competition, technology and other environmental forces (Zebal, 2011). Bunic (2007) further states that market intelligence must be communicated and disseminated throughout the organization in both formal and informal ways. Effective dissemination of market orientation is seen as a vital act since it provides a shared basis for collaborative efforts by different departments.

Market orientation also entails responsiveness to market intelligence which is generated and disseminated. The responsiveness involves the selection of target markets; the design and selection of products and services; and the production, distribution and promotion of the product (Bunic, 2007). In order to measure market orientation, Jaworski and Kohli
(1993), developed the MARKOR scale (Ghani and Mahmood, 2011). The contribution of Kohli and Jaworski (1990) was substantial at least in three important ways; first, they developed a link between market orientation and positive financial business performance; second, market orientation could be investigated as an observable behavior, and thirdly, through minimally abstract construct and measures, they presented the implications for practitioners as well (Sikoset, 2004).

Figure 3.2: Market Intelligence Perspective

![Intelligence Generation](Source: Researcher’s compilation)

The following key issues emerge from Jaworski and Kohli’s (1990) perspective:

i) Market intelligence for Kohli and Jaworski (1990) was a broader concept going beyond the verbalized needs and preferences of customers.

ii) Market intelligence includes monitoring competitor’s actions and their effect on customer preferences, as well as analyzing the effect of other exogenous forces.

iii) Effective market intelligence involves not just current needs but future ones. This suggests that organizations anticipate needs knowing that it can take years to develop products to fulfill those needs.

iv) Market intelligence relies on formal and informal mechanisms, such as customer surveys, meetings and discussions with customers and trade partners, analysis of sales reports, formal market research and so on.

v) Intelligence generation is not the exclusive responsibility of the marketing department. Information that is relevant regarding customers and competitors is obtained by all functional departments in the company, such as research & development (R& D), manufacturing, and finance.
vi) In view of the fact that all departments have a role to play in the generation of intelligence, mechanisms, therefore, should be put in place to ensure that this information is disseminated effectively to all departments. This will determine the organization’s ability to effectively adapt to market needs.

vii) The dissemination of market intelligence is important because it provides a shared basis for concerted actions by the different departments.

viii) Market intelligence generation and dissemination are of no value if the organization is not able to respond to market intelligence and the market trends.

ix) All departments need to be responsive and this can take the form of selecting the appropriate target markets, designing, producing, promoting and distributing products that meet current and anticipated needs.

3.4.3 Culturally Based Behavioural Perspectives

Almost concurrently with Kohli and Jaworski’s (1990) perspective, Narver and Slater (1990) proposed a conceptualization of market orientation that presented a different approach to the construct (Keeson, 2012) known as the culturally based behavioural perspective (Lafferty and Hult, 2001). According to Narver and Slater (1990), market orientation is an organizational culture which leads to behaviours in a highly efficient manner that is essential for creating more value for customers and thus enhancing the business performance in the firm (Moradi and Moradi, 2010).

Inherent in Narver and Slater’s (1990) definition of market orientation is the behavioural component. The conceptual model developed by Narver and Slater (1990) as shown in Figure 3.3 includes three behavioural components of market orientation: customer orientation, competitor orientation and interfunctional coordination (Ghani and Mahmood, 2011). They also incorporate an intelligence generation and dissemination component. For them, market orientation also includes long term focus and profitability as the decision criteria (Bunic, 2007).
Building on these three components of market orientation, Narver and Slater, according to Keelson (2012), have since 1990 published a number of studies (Narver and Slater, 1998; Slater and Narver, 1992; 1994; 1995), which have culminated in the development of a measurement scale known as MKTOR. The key issues arising from these studies from the culturally based behavioral perspective are:

i) The customer orientation element requires a sufficient understanding of the customer in order to create products or services of superior value for them.

ii) This creation of value is accomplished by increasing benefits to the buyers or customers while decreasing their costs.

iii) To develop the level of understanding of customers that necessitates acquiring information about the customers or buyers, and comprehending the nature of the economic and political constraints that face them to ensure that the company will be cognizant of the needs of its present and future buyers and can work to satisfy those needs.

iv) The competitor orientation means that the organization understands the strengths and weaknesses of its current and possible future competitors, as well as their long-term capabilities and strategies.

v) The competitor orientation parallels the customer orientation in information gathering and includes a thorough analysis of the competitors’ technological capabilities in order to assess their ability to satisfy the same buyers.
vi) Interfunctional coordination entails the coordinated utilization of company resources in creating superior value for its customers that ensures that anyone in the organization can potentially create value for the buyer.

vii) The coordinated integration of business resources is closely linked to the customer and competitor orientation.

viii) If interfunctional coordination does not exist, then this must be cultivated by stressing the advantages inherent in the different areas in cooperating closely with each other.

ix) To be effective, all departments must be sensitive to the needs of all the other departments in the organization.

3.4.4 Strategic Focus Perspectives

Several authors (Hou, 2008; Zebal and Goodwin, 2011; Ghani and Mahmoud 2011; Nayebzadeh, 2013) credit Ruekert (1992) with the strategic focus perspective.

As indicated by Naybedzadeh (2013), after Narver and Slater’s (1990) work, Ruekert (1992) presented a different definition of market orientation when he described it as a business unit that acquires and uses information about customers, develops a strategy that can meet the needs of the customers, and this strategy is used to meet the needs of the customers. Ruekert (1992), according to Zebal and Goodwin (2011), borrowed the information and responsiveness aspects from the definition of market orientation proposed by Kohli and Jaworski (1990) and Narver and Slater (1990); but rather, focused on the business unit more than the corporate or individual market as the unit of analysis. The key elements of Ruekert’s (1992) perspective, according to Hashim and Bakar (2011), as shown in Figure 3.4, are the generation of customer information, the development of a strategy for customers, and the implementation of that strategy.

Figure 3.4: Strategic Focus Perspective

![Strategic Focus Perspective Diagram]

Source: Researcher’s compilation
From this perspective, the following issues emerge:

i) Managers must collect and interpret information from the external environment in order to set goals and objectives and to allocate resources to programmes in the business unit.

ii) The most critical external environment in developing a market orientation is the customer.

iii) The next dimension of market orientation, according to Ruekert (1992), is the development of a plan of action or a customer focused strategy. This dimension considers the degree to which the strategic planning process considers the customer’s needs and wants, and develops specific strategies to satisfy them.

iv) Finally, the customer-oriented strategy is implemented and executed by organizational responsiveness to the needs and wants of the market place.

3.4.5 Customer Orientation Perspectives

Deshpande, Farley and Webster (1993) are credited with the development of the customer orientation perspective (Hou, 2008; Hashim and Bakar, 2011; Zebal and Goodwin, 2011; Nayebzadeh 2013). Customer orientation for Deshpande et al. (1993) is the set of beliefs that puts the customer’s interest first, while not excluding those of all other stakeholders, such as owners, managers, and employees, in order to develop a long term profitable enterprise (Zebal and Goodwin, 2011).

Deshpande, Farley and Webster (1993), according to Hou (2008), challenged the conceptions of both Kohli and Jaworski and Narver and Slate and defined market orientation as being synonymous with customer orientation and distinguishable from competitor orientation. Putting customer interests first is the central part of their definition of customer orientation and they argue that competitor orientation can be almost antithetical to customer orientation when the focus is more on the strengths of the competitor than on the unmet needs of the customer (Zebal and Goodwin, 2011).
The key issues arising from this perspective are:

i) Deshpande et al. (1993) proposed a more divergent view of market orientation suggesting that it is synonymous with customer orientation.

ii) They argue that a competitor orientation can almost be antithetical to a customer orientation and thus exclude the competitor focus from the market orientation concept.

iii) They acknowledge that an interfunctional coordination is consistent with a customer orientation and should be part of its meaning. This view is similar to that espoused by Narver and Slater (1990) and Kohli and Jaworski (1990), who stated that the essence of customer orientation is the coordinated utilization of company resources in creating superior value for target customers.

iv) Customer orientation is viewed as being part of the overall corporate culture whose values reinforce and perpetuate this focus. This view is similar to Slater and Narver’s (1995) culturally based behavioral perspective.

3.4.6 Further Categorisation

The five conceptualizations, according to several authors (Lafferty and Hult, 2001; Zebal, 2003; Hashim and Bakar, 2011; Zebal and Goodwin 2011; Ghorbani et al., 2014), can be further categorized into managerial and cultural focus.

Managerial Focus

Lafferty and Hult (2001) and Zebal and Goodwin (2011) intimate that Shapiro (1988), Ruekert (1992), and Kohli and Jaworski (1990) exemplify a more managerial or leadership focus. Senior management’s role is seen as fostering a market orientation (Kohli and Jaworski, 1990; Hashim and Bakar, 2011); and, indeed, was tantamount to its success (Shapiro, 1988; Ghorbani et al., 2011). The everyday managerial processes such as recruiting, training, and compensation were assessed to determine the degree of market orientation in business units (Ruekert, 1992; Ghorbani et al., 2011). According to Lafferty and Hult (2001), it appears that the managerial emphasis on implementing a
market-oriented approach was more central in the conceptualization of the market
telligence perspective, the decision making perspective, and the strategic perspective.

Cultural Focus
Lafferty and Hult (2001) and Zebal and Goodwin (2011) again indicate that both Narver
and Slater (1990) and Deshpande et al. (1993) make reference to the type of
organizational culture that must exist in order to create superior value for the buyers and
superior performance for the business. The importance of a market-oriented business
culture is crucial to organizations (Deshpande and Webster, 1989; Day, 1990; 1992;
Deshpande et al., 1993; Narver and Slater, 1990; Hashim and Bakar, 2011), and the
importance of this cultural perspective as a foundation for market orientation is strongly
supported (Deshpande and Webster 1989; Deshpande et al., 1993). Lafferty and Hult
(2001) state that this conceptualization appears to extend beyond the specific structures
and processes that are practised in market-oriented companies and goes more to the heart
of the concept, focusing on the values that exist within the corporation. Deshpande et al.
(1993), according to Zebal and Goodwin (2011), determine empirically that those firms
which have cultures that are relatively responsive (i.e. market oriented), outperform those
that are more internally oriented or have more bureaucratic cultures.

3.4.7 Cultural versus Behavioural Perspective
Generally, market orientation contrasts the philosophical value of the marketing concept
with its implementation and conceptualization of market orientations and has been
derived from two conceptual perspectives: behavioural and cultural (Halpern and
Pagliari, 2008). Homburg and Pflesser (2000) also state that in the evolution of the
market orientation that has been adopted in the literature, the discussion about the cultural
perspective (Narver and Slater, 1990) versus the behavioural perspective (Kohli and
Jaworski, 1990) has been well-established. The behavioural perspective concentrates on
organizational activities related to the generation, dissemination and response to market
intelligence (Kohli and Jaworski, 1990), whilst the cultural perspective concentrates on
organizational values, such as customer orientation, competitor orientation and
interfunctional coordination (Deshpande, Farley and Webster, 1993; Narver and Slater,
1990). Despite their differences, both perspectives work on the assumption that a market
oriented company is likely to have superior market sensing and customer linking capabilities that are likely to result in superior performance (Day, 1992).

Vieira (2010) states that the behavioural aspect identifies three main components of the construct: an organization-wide generation of market information about current and future needs; a dissemination of such information across departments and individuals within the market-oriented firm; and an organization-wide responsiveness to the disseminated information. Kirca et al. (2005), in their meta-analysis, indicate that this behavioural perspective concentrates on organizational and human activities that are related to the creation of, propagation of, and reaction to market intelligence. Vieira (2010) states that the cultural perspective focuses on organizational norms and values that encourage behaviours that are consistent with market orientation. Making reference to Narver and Slater (1990, 1995), Vieira (2010) states that market orientation is presented as a construct created from three main elements: customer orientation, which is a firm’s focus on client needs; competitor orientation, which analyses the opponent strategy and market movement; and inter-functional co-ordination, which introduces cooperation among employees.

The question has, however, been asked as to whether the culture drives the behaviour, or the culture reflects the behaviour of its managers, employees, customers and exogenous factors (Hafer and Gresham, 2008). There have been efforts to integrate these perspectives into one framework (Matsuno, Mentzer and Rentz, 2005; Carr and Lopez, 2007). As suggested by Mavondo et al. (2005), a market orientation is primarily concerned with a relentless pursuance of intelligence pertaining to customers, competitors, and internal organizational integration (Slater and Narver, 1995; Narver and Slater, 1990) or about information acquisition, information dissemination and responding to information (Kohli and Jaworski 1990; Jaworski and Kohli 1993). Mavondo, Chimanzi and Stewart (2005) speculate that market orientation is a combination of exploration (with the organization continually learning about its customers, competitors, markets e.t.c) and exploitation (that is, using the information to its advantage to advance its own welfare). They conclude that market orientation is at the same time a set of norms and values and a set of behaviours and activities. Some literature use the variable customer
orientation as something of a surrogate for market orientation, and some co-mingle the two (Hammond, Webster and Harmon, 2006; Pitt, Prinsloo and Berthon, 2007). Vieira (2010), however, concludes that both market orientation approaches are complementary in explaining the behaviour of firms.

3.5 Synthesis of Market Orientation Perspectives

Regardless of the perspective, most authors on the subject seem to agree that market orientation contains elements of market intelligence generation, dissemination and use, with the aim to create value for customers (Lafferty and Hult, 2001; King and Kirca, 2004; Raaij and Stoelhorst 2008; Divandari et al., 2009; Chirani and Pakpour Rudsari, 2011; Zebal and Goodwin, 2011; Taleghani et al., 2012). According to Lafferty and Hult (2001), market orientated organizations are organizations that are well-informed about the market and that have the ability to use that information to advantage to create superior value for their target customers. According to Christensen and Bower (1996), recognizing this common ground may help counter some of the unjust criticism on the normative implications of the concept.

Zebal and Goodwin (2011) supported by various authors (Hou, 2008; Mokhtar, 2009; Hashim and Balkar, 2011) succinctly summarize the key elements of the five perspectives stating that there is a broad agreement on four elements among the five perspectives that constitutes market orientation. These common elements as captured in Table 3.1 are:

1) Customer orientation;
2) Information gathering;
3) Inter-functional coordination of marketing activities; and
4) Responsiveness to customers.
### Table 3.1: Similarities on the Key Characteristics of the Five Leading Market Orientation Perspectives

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<td>a) Markets and customers must be understood. A company can be market-oriented only if it completely understands: i) its markets and customers, ii) the decision-makers who decide whether to buy its product and/or services, and iii) the intermediaries including wholesalers, retailers and other parts of the distribution channel who may also influence customer choices.</td>
<td>a) Effective market information not only involves customers’ current needs but also their future needs, so it should go beyond the verbalized needs and preferences of customers.</td>
<td>There must be a sufficient understanding of target buyers to be able to create continuous superior value for them (Narver and Slater, 1990).</td>
<td>a) The most critical aspect of the external environment in developing a market orientation is the customer. Hence, the needs and wants of the customer should be investigated on a regular basis.</td>
<td>a) Kotler’s (1991) definition of the market as ‘the set of all present and potential customers of an organisation’ is utilized and market orientation is viewed as being synonymous with customer orientation.</td>
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<td>a) Strengths and weaknesses of competitors must be understood. Although competitors have not been included, it is recognized that understanding the strengths and weaknesses of competitors is a part of being a market-oriented company. Thus, a market-oriented company should consider the competitors and collect and organize information regarding competitors accordingly.</td>
<td>a) Information generation of market information relies on both formal and informal mechanisms such as customer surveys, meetings and discussions with customers and trade partners, analysis of sales reports, and formal market research.</td>
<td>a) A company must acquire information about customers or buyers in the target market and disseminate it throughout the company (Kohli and Jaworski, 1990).</td>
<td>a) Information approach recommends managers to collect and interpret information from the external environment in order to set goals and objectives and to allocate resources to programmes in the business unit on the basis of what is needed for each programme to succeed.</td>
<td>a) The set of values and beliefs that consistently reinforce customer focus should be considered, as without considering these values and beliefs information about the needs of actual and potential customers is useless.</td>
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<td>b) Market information also includes monitoring competitors’ actions and their effect on customer preferences as well as analyzing the effect of other factors such as government regulation, terminology, technology and environmental factors.</td>
<td>b) Market information also includes monitoring competitors’ actions and their effect on customer preferences as well as analyzing the effect of other factors such as government regulation, terminology, technology and environmental factors.</td>
<td>b) A company must understand the economic and political constraints at all levels within the channel (Narver and Slater, 1990).</td>
<td>c) A company must understand the short-term strengths and weaknesses and long-term strategies and abilities of both the current and potential competitors.</td>
<td>b) In this perspective, it is argued that a competitive orientation can be almost antithetical to a customer orientation and thus, excludes the competitor focus from the market orientation concept.</td>
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<td>c) Information generation is not the exclusive responsibility of the marketing department. Therefore, all the functional departments in the company such as R&amp;D, manufacturing and finance, production and engineering should also obtain information regarding customers and competitors.</td>
<td>d) Competitor orientation must parallel customer orientation in information gathering and include a thorough analysis of the competitors’ technological capabilities in order to assess their ability to satisfy the same buyers (Levitt, 1960).</td>
<td>e) The coordinated integration of the company’s resources in creating superior value for buyers must be tied closely to both customer and competitor orientation (Narver and Slater, 1990).</td>
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<td><strong>Inter-functional Coordination</strong></td>
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<td>a) Information needs to permeate every corporate function. This includes all information that is generated regarding the markets, customers, trade partners and decision makers by various means such as market research reports, taped customer responses, industry sales analysis and trade show visits.</td>
<td>a) A system for the effective communication and dissemination of the collected information to all parts of the organization should be set up</td>
<td>a) In developing effective inter-functional coordination, marketing or any other suggested department must be extremely sensitive and responsive to the perceptions and needs of all other departments in the company.</td>
<td>a) This perspective focuses on the business unit in an organization (identifying market orientation in each unit of an organization) rather than the whole organization or individual market as the unit of analysis.</td>
<td>a) It is acknowledged that inter-functional coordination is consistent with customer orientation and should be part of its meaning. This concurred with Narver and Slater (1990) and Kohli and Jaworski (1990), who stated that the essence of customer orientation is the coordinated utilization of company resources in creating superior value for target customers.</td>
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<td>Source: Zebal and Goodwin (2011)</td>
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<td><strong>Responsiveness to Customers</strong></td>
<td>a) Ability to make strategic and tactical decisions is important. A market or customer oriented company must be able to make strategic and tactical decisions inter-functionally and inter-divisionally in spite of any potentially conflicting objectives that reflect conflicting objectives in operational methods.</td>
<td>a) The company should respond according to market needs, for example according to collected and disseminated information. Responsiveness takes the form of selecting target markets, designing and offering product/services that cater to their current and anticipated needs, and producing, distributing, and promoting the products in a way that elicits favourable end-user response.</td>
<td>a) A company must be coordinated in utilizing its resources in order to create superior value for the target customer. Thus, anyone in the organization can potentially create value for the buyer (Porter, 1985). This means that creating value for buyers is much more than a marketing function (concur with the findings of Kohli and Jaworski, 1990).</td>
<td>a) This perspective emphasizes strategy development and implementation in responding to customer needs and wants.</td>
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<td>b) There must be an open decision-making process. For a company to be market driven, functions and divisions must be willing to listen to each other and express ideas openly and honestly. Thus, in order to make wise decisions, the opinions and differences functions and divisions must be recognized and respected.</td>
<td>b) Finally, responding to market trends in a market-oriented company is not only the responsibility of the marketing department but of virtually all departments in the company all the departments.</td>
<td>b) Given the multidimensional nature of creating superior value for customers, marketing’s inter-dependencies with other business functions must be systematically incorporated into a business marketing strategy (Wind and Robertson, 1983).</td>
<td>b) It also addresses the development of a plan of action or a customer focused strategy. It considers the degree to which the strategic process considers customer needs and wants and development of particular strategies to satisfy them.</td>
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<td>c) Decisions must be well co-ordinated among the different divisions and functions of an organization, and they must be executed with a sense of commitment. In a market-oriented company powerful internal coordination involving sharing of ideas and discussing alternate solutions leads to clear communication, stronger coordination, and high commitment, while poor coordination results in misuse of resources and failure to seize market opportunities.</td>
<td>c) Finally, the customer-oriented strategy is implemented and executed by the organization to respond and take care of the needs and wants of the target market.</td>
<td>c) Finally, the customer-oriented strategy is implemented and executed by the organization to respond and take care of the needs and wants of the target market.</td>
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Source: Zebal and Goodwin (2011)
3.5.1 Customer Emphasis

Lafferty and Hult (2001) assert that market orientation is the operationalization and implementation of the marketing concept, indicating that the fundamental premise of satisfying the needs and wants of a firm’s customers should be inherent in any basic conceptualization of market orientation. Hadcroft and Jarrat (2007) and Zebal and Goodwin (2011) support this assertion stating that a key element of market orientation is focusing on the interests of customers.

Hashim and Bakar (2011) state it variously as that market orientation requires a sufficient understanding of the customer to create products or services of superior value which is accomplished by increasing benefits to the customers while decreasing the costs. As emphasized by Blankson and Cheng (2005), marketing orientation holds that the key to organizational success is through the determination and satisfaction of the needs, wants, and aspirations of target markets. They noted that these must be pursued more effectively and efficiently than competitors and with the intention of achieving profitability and or satisfying objectives.

Hou (2008) intimates that regardless of what the perspective market orientation entails, an organizational decision-making process, which places priority on a firm’s customers (Shapiro, 1988), upgrades the organization towards customers through the design of the organizational management system (Becker and Homburg, 1999), responds to the needs and wants of customers (Kohli and Jawoski, 1990), continuously creates superior values for customers (Narver and Slater, 1990), implements the strategy (Ruekert, 1992), puts customers’ interests first (Deshpande et al., 1993), satisfies customers’ obvious and potential needs to gain long-term advantage with high learning orientation (Day, 1992; Sinkula, 1994), and establishes long-term relationships by awareness of the changing needs of customers (Baker and Sinkula, 1999a; Hadcroft and Jarrat, 2007).

In essence, therefore, customer focus is the primary element of market orientation (Lafferty and Hult, 2001). To compete and survive in this highly competitive global business era, firms have to pay more attention to the needs of their customers by constantly innovating every aspect of their business (Dauda, 2010). Zebal and Goodwin (2011) aptly sum these up saying market orientation involves three strategies: understanding and being committed to
customers, creating superior value for customers, and the encouragement of customers’ comments and complaints.

Capon et al. (1991) however notes that customer emphasis is essential but difficult to sustain, howbeit, if it is not sustained the organization runs a risk of losing customers to competitors. In order to prevent this, organizations need to systematically research the current and perceived future needs of customers. This is done with the purpose of sustaining the organization through meeting the needs of customers that add value to the business. If superior value is created for customers, maximum product satisfaction will also be provided (Narver and Slater, 1990). Miller and Layton (2001) defined value as the ratio of perceived benefits to price and any other incurred costs. This means that when offering a product, a company should be sure the price of the product at least matches the perceived benefits of the product; if positive, customer behaviour towards the company is to be an outcome (Soderland, 1998). Finally, customer comments and complaints should be encouraged because they help corporate self-assessment of market related activities to occur. Deng and Dart (1994) suggested that this self-assessment process is critical for ongoing success.

3.5.2 Information Gathering
A second unifying element that defines market orientation, according to Lafferty and Hult (2001), is the importance of information within the organization. This information has its focus, once again, on the customer. This aspect of information, according to Zebal and Goodwin (2011), can be approached in two ways: first, agreement on information generation regarding customers and factors that affect the customers, and second, information regarding competitors. This, in the words of Bunic (2007), refers to the collection and assertion of both customers’ current and future needs, plus the impact of government regulation, competition, technology and other environmental forces. This assertion finds support in Zebal and Goodwin (2011), who also intimate that for the company to serve the market better than its competitors, information regarding the existing and perceived future needs and wants of customers needs to be collected.

Generation of market intelligence, according to Hashim and Bakar (2011), relies on formal and informal mechanisms such as customer surveys, meetings and discussions with customers and trade partners, analysis of sales reports, and formal market research. They, however, make reference to Kohli and Jaworski (1990) to the effect that intelligence
generation is not the exclusive responsibility of the marketing department. All functional
departments in the company such as research and development, manufacturing, and finance
need to obtain information that is relevant regarding customers and competitors.

The application of the information acquisition techniques in organizations should go beyond
simple customer satisfaction measurement approaches (Narver, Slater and MacLachlan,
2004) because, as stated by Hou (2008), if information collection, synthesis and response
occur at the level of customers’ higher order goals, it is likely that novelty and
meaningfulness of new value options will align with customer expectations.

Gounaris and Alvonitis (2001) suggest that with this information available, a company-wide
mobilization to satisfy customers’ needs and wants should follow. Such a strategy underpins
the development of market orientation in organizations (Narver and Slater, 1990; Kohli and
Jaworski, 1990; Slater and Narver, 1994). Three of the five perspectives, according to Laffery
and Hult (2001), also indicate the need for organizations to generate and utilize information
on competitors as well. With the exception of Ruekert (1992) and Deshpande et al. (1993),
the three other perspectives agree that an organization needs to understand the strengths and
weaknesses of its competitors. Shapiro (1988) infers anecdotally that a market-oriented firm
will also assess the competition and acquire information on it.

Kohli and Jaworski (1990) specify that market intelligence also includes monitoring a
competitor’s actions in order to determine their effect on consumers. Narver and Slater
(1990) give equal weight to competitor orientation as they do to customer orientation in their
conceptualization indicating that information gathering is equally important in both areas.

3.5.3 Interfunctional Coordination

Another area of consensus among the perspectives, according to Lafferty and Hult (2001), is
interfunctional coordination or dissemination of information in the organisation. According to
Zebal and Goodwin (2011), responding effectively to a market need requires participation
and the coordination of all departments in an organization. Bunic (2007) states that market
intelligence must be communicated and disseminated throughout an organization in both
formal and informal ways. Effective dissemination of MO is seen as a vital act since it
provides a shared basis for collaborative efforts by different departments.
Hashim and Bakar (2011) infer that inter-functional coordination refers to the coordinated utilization of the company’s resources in creating superior value for its customers. The absence of inter-functional coordination, according to them, will have an effect on the cooperation between departments, thus they must be sensitive to the needs of all the other departments within the organization.

The inter-functional coordination component means that the information gathered about the customers and competitors should be disseminated throughout the organization and not only to the marketing department. This will enable the firm utilize the information resources of the firm in a coordinated manner to create superior value for the customers (Ghani and Mahmood, 2011). Hou (2008) gives clarity to this position by referring to the various perspectives. According to him, the importance of this cooperative orientation is evident in all of the three characteristics specified by Shapiro (1988) that defines a market driven firm. According to Hou (2008), not only does Shapiro (1990) state that information should permeate the entire firm but rather that strategic and tactical decisions should be made and executed interfunctionally. Furthermore, Hou (2008) states that the second key element in the definition of market orientation by Kohli and Jaworski (1990) specifically addresses intelligence dissemination interdepartmentally and the necessity of this step to ensure concerted action by the different departments. Kohli and Jaworski (1990), to that effect, state that for an organization to adapt to market needs, market information must be communicated, disseminated, and perhaps even sold to relevant departments and individuals in the organization.

Narver and Slater (1990), according to Hou (2008), single out interfunctional coordination as a key element in the conceptualization of market orientation and indicate that it is an equally important element as customer and competitor orientation. Ruekert (1992) also, according to Hou (2008), agrees with the need for interfunctional coordination in order to deliver customer value, and finally, Deshpande et al. (1993) acknowledge that interfunctional coordination is consistent with customer orientation and should be a part of its meaning. Thus, in the view of Hou (2008), an essential element of market orientation is the interfunctional dissemination of information, and the interaction, cooperation and relationship of marketing activities in the organization.
3.5.4 Intelligence Responsiveness

The last component of market orientation, according to Bunic (2007), is responsiveness to market intelligence, which is generated and disseminated. This responsiveness, according to him, involves the selection of target markets; the design and selection of products and services, and the production, distribution and promotion of the product. Market orientation, for Chirani and Rudsari (2011), establishes some norms regarding information collection and extensive organizational responsiveness to the information related to customers (potential and actual) so that firms can precede the competitors in market analysis and react to its needs. This, according to them, can be done through innovation in goods and services, as well as the capability to create customer value. It seems that market-oriented firms have a competitive advantage in both the speed and effectiveness of their reaction towards opportunities and threats (Chirani and Rudsari, 2011).

Four of the five perspectives, according to Laffetry and Hult (2001), agree on the need to take action, which Zebal and Goodwin (2011) refer to as being responsive to customers. Zebal and Goodwin (2011), indicate that with the exception of Deshpande et al. (1993), the other perspectives intimate that the implementation of a customer orientation is a critical ingredient in the definition of market orientation. According to them, Shapiro (1988) states it as executing well-coordinated decisions with a sense of commitment. Jaworski and Kohli (1993) defined the responsiveness component as being composed of two sets of activities, these being response design (using market information to develop plans), and response implementation (executing such plans). Kohli and Jaworski (1990) state it as corporate wide responsiveness to market intelligence; Narver and Slater (1990) state it as utilizing company resources to deliver value to its customers; whilst Ruekert (1992) states it as implementing and executing corporate strategy by being responsive to the needs and wants of the marketplace. This means that responsiveness involves developing, designing, implementing, and altering products and services in response to customers’ current and future needs (Zebal and Goodwin, 2011).

Hou (2008) provides a summary by indicating that in order to become market-oriented a company should focus on responding to the customers’ needs and wants, as well as gathering and disseminating information.
3.6 Antecedents of Market Orientation

The positive relationship between market orientation and performance level of organisations in the literature, according to Ghanai and Mahooud (2011), makes it necessary to identify what makes a firm more or less market oriented because, as suggested by Zebal and Goodwin (2011), the degree of market orientation of an organization depends on the presence or absence of some internal and external factors.

These factors are labeled as antecedents of market orientation (Bunic, 2007). Antecedents to market orientation refer to organizational factors that enhance or impede the implementation of the market orientation concept (Deshpande, 1999) or, as stated by Ghani and Mahmood (2011), act as catalysts or deterrents to market oriented activities. Raaij and Stoelhorst (2008) extensively studied antecedents of a market orientation, from an implementation perspective, and provide clues of how to develop a market orientation in a firm. They distinguished between external antecedents or environmental factors that stimulate a firm’s adoption of a market orientation, and internal antecedents or organizational factors that enable the adoption of a market orientation concept.

A study conducted by Kohli and Jaworski (1993) on several US firms, corroborating with the literature on the subject area, provides an explicit list of three main antecedents to market orientation: senior management factors (role of senior management); interdepartmental dynamics (formal and informal interactions and relationships among an organizations departments); and organizational systems (organization wide characteristics relating to structure).

Gray and Hooley (2002), however, feel that Jaworski and Kohli’s (1993) study was a deductive, cross-sectional study, which provided limited insights. In order to understand the adoption processes, influences and barriers, Gray and Hooley (2002) suggest that a more in-depth qualitative (and preferably longitudinal) research is needed. Qualitative research may provide richer information on the links between market-oriented behaviour and other marketing and management strategies and various performance outcomes (Gray and Hooley, 2002). In spite of this assertion by Gray and Hooley (2002), Jaworski and Kohli’s antecedents are generally accepted in extant literature. Bunic (2007) supports Jaworski and Kohli’s (1990) antecedents by also listing senior management characteristics, organizational characteristics and interdepartmental dynamics as the internal factors or internal antecedents.
On the other hand, market turbulence, technological turbulence and five competitive forces intensity are named as the external factors or external antecedents (Bunic, 2007; Ghani and Mahmoud, 2011).

3.6.1 Internal Antecedents

Internal antecedents are organizational factors that enable the adoption of the market orientation or factors that exist within the organization (Zebal and Goodwin, 2011). Raaij and Stoelhorst (2008) intimate that the internal antecedents empirically proposed and tested in the literature include the three organizational processes that foster market orientation: recruitment and selection of customer focused individuals; market oriented training; and market oriented reward and compensation systems.

However, as stated by Zebal and Goodwin (2011), various internal antecedents have been proposed and tested for association with market orientation. These include market orientated training (Ruekert, 1992; Liu and Davies, 1997); formal marketing education (Harris, 2000); market based rewards (Ruekert, 1992; Jaworski and Kohli, 1993); top management emphasis on market orientation (Puleidran et al., 2000; Jaworski and Kohli, 1993); top management risk aversion (Jaworski and Kohli, 1993); inter departmental conflict (Jaworski and Kohli, 1993); and inter departmental connectedness (Jaworski and Kohli, 1993).

3.6.1.1 Senior Management Characteristics

Senior management factors as antecedents play a critical role in fostering market orientation. The role of senior management was found to be critical in shaping organizational values to promote and reinforce behaviours necessary to serve the current and future needs of customers better than their key competitors (Hashim and Bakar, 2011). Nayebzadeh (2013) cites Deshpande et al. (1993), to the effect that, for a proper implementation of market orientation in business firms, senior managers must be convinced of its value and communicate this commitment to junior employees, and develop positive attitudes towards change. Keelson (2014) also makes reference to Webster (1988) indicating that, in order to attain market orientation, Chief Executive Officers must provide clear signals and establish clear values and beliefs.
Management behaviour is the key barrier to developing a market-oriented culture in an organization. Thus management reinforcement and their commitment to continuous communication of specific guidelines to be market-oriented is considered mandatory to encourage organizational employees, in order to create, disseminate and effectively respond to market intelligence (Harris and Ogbonna, 2001).

The senior management factors stated in literature include top management emphasis and risk aversion. The top management construct suggests that as senior management increases their emphasis on market orientation and as their risk aversion decreases, there is likely to be a more comprehensive and complete adoption of a market orientation (Jaworski and Kohli, 1993; Rong and Wilkinson, 2011; Dibrell et al., 2011).

Top Management Emphasis

The critical role of management in fostering a market orientation has appeared in several studies (Webster, 1988; Kohli and Jaworski, 1990; Jaworski and Kohli, 1993; Kirca, et al., 2005; Hammond et al., 2006; Tamaskova, 2009; Malik and Naeem, 2009). These studies viewed management as highly influential on customer focus, interfunctional coordination and intelligence responsiveness. Kohli and Jaworski (1990), for instance, state that “the commitment of top managers is an essential prerequisite to market orientation”. Hammond, Webster and Hammon (2006) also mentioned top management as antecedents to market orientation. Jaworski and Kohli (1993) state that there is a need for top management to continuously emphasize the focus on collecting and disseminating market intelligence because, as stated by Baron (2010), top management plays a central role of shaping organizational values and culture. Slater and Narver (1995) used leadership as a major construct for creating a market orientation culture. Puledran et al. (2000) also identified a significant relationship between top management emphasis and overall marketing orientation, claiming that it plays a crucial role in the development of market orientation. In effect, top management’s belief, understanding, and commitment to customer service are important to promoting market orientation as a strategy to enhance organizational performance (Dwairi et al., 2012).
**Risk Aversion**

Risk aversion has also been found to be related to market orientation (Jaworski and Kohli, 1990; Malik and Naeem, 2009; Mahmoud, 2011; Zeba and Goodwin, 2011; Keelson, 2014). Risk aversion, as stated by Dwairie et al. (2012), refers to top management’s propensity to avoid risks or be risk-averse and be intolerant to failures. Top management’s willingness to take risks plays a critical role in fostering or inhibiting market orientation. Employees’ trust of management is central to the development of a market-oriented culture because trust enables individuals to take risk without fear for failure (Chandler et al., 2000).

Ghani and Mahooud (2011) intimate that the main feature of market orientation is to identify the changing needs of customers and respond to them, which often involves the introduction of new products and services. However, the introduction of new products, they indicate, is often risky, having a high chance of failure. When top management is willing to take risks and accept occasional failures, it encourages employees from all the departments to be committed to respond to customer needs by offering new products. In contrast, when top management is not willing to take risks and does not accept failures, then the subordinates feel discouraged and they are less likely to respond to customers’ needs. In effect, market oriented activities cannot be developed unless top management displays less risk-aversion behaviour (Mahmoud, 2011).

Kohli and Jaworski (1990) and Jaworski and Kohli (1993) argue that the symbolism viewed in senior management’s willingness to take risks would encourage and facilitate organization-wide commitment to innovations and responsiveness. Top management’s willingness to take risks and to accept occasional failures will motivate other managers to propose and introduce new products in response to changes in customers’ needs. On the other hand, a risk-aversion approach adopted by senior managers will permeate the organization and inhibit the process of market intelligence generation, dissemination, and response to changes in the market place (Akomea and Yeboah, 2011) meaning that the more risk averted top management is, the less market oriented firms become. On the other hand, firms that take calculated risks in the course delighting customers succeed at concentrating all efforts on customers, hence are more market oriented.
Overall, despite Puledran et al.’s (2000) exceptional study that found no significant relationship between market orientation and risk aversion, studies have established that the risk seeking posture of top management proved to provide a great deal of support in their commitment to innovation and responsiveness. However, their risk aversion could lead to organization-wide derailment of the process of market orientation as indicated by Kohli and Jaworski (1990).

Management Training
As indicated by Keelson (2014) several other scales that have been used extensively to measure and establish market orientation-business performance linkage, which includes management training (Pulendran et al., 2000; Zebal, 2003; Liu et al., 2006; Morgan et al., 2009). Ruekert (1992) found management training to be positively associated with organizational market orientation. Liu and Davis (1997) state that training programmes help marketing managers not only to develop the skills of serving customers but also ensure that they serve customers better and differently from their competitors. Horny and Cheng (1998) assert that overall market orientation could be improved by sending top managers to marketing training programmes as this, according to Wood and Bhuian (1993), to force managers to look at the “big picture” and are thus able to change their values and attitudes to support market orientation.

Liu and Davies (1997) suggest that training programmes help managers not only to develop skills for serving their customers, but also to ensure that they serve customers better and differently to their competitors. Regarding management training being effective, this in turn depends on the trainer having the required knowledge and a setting that enables the learning to be implemented (Zebal and Goodwin, 2011). Even though Zebal and Goodwin (2011) did not establish any relationship between management training and market orientation, they indicate that if this training process was effectively driven with high levels of involvement and interest by senior management, it is expected such training will deliver significant outcomes.

Formal Marketing Education
Horng and Cheng (1998) found a strong positive relationship between formal marketing education and market orientation. Harris (2000) further reasoned that top managers whose background education does not predispose them towards market orientation acts as a barrier
to the adoption of it. Gronhaug (2002) states that formal marketing education is important for a company to become market-oriented and it is commonly believed that marketing knowledge is useful. Kohli and Jaworski (1990) indicate that the market orientation of an organization is a function of the formal marketing education. Previous studies by Wang and Satow (1994) also confirmed that the higher the education level of a person increases the more positive sense of self-responsibility and leadership style that may modify management and organizational effectiveness. Thus, formal marketing education should be considered an antecedent of marketing orientation.

3.6.1.2 Interdepartmental Dynamics
According to Mahmoud (2011), several researchers (Levin, 1969; Jaworski and Kohli, 1993; Harris and Piercy, 1999; Pulendran et al., 2000) have established that the implementation of market orientation is greatly influenced by interdepartmental connectedness and conflict. These interdepartmental dynamics, Kohli and Jaworski (1990) state, represent the interactions and relationships among organization’s departments. These can be detrimental or beneficial respectively to execute the business philosophy, representing the marketing concept (Malik and Naeem, 2009).

Interdepartmental Conflict
Interdepartmental conflict refers to the tension among departments arising from the incompatibility of actual or desired responses (Robbins and Judge, 2011). Dwairi et al. (2012) intimate that it could occur among or within departments as a result of group or departmental identification, observable differences and frustration. It inhibits the ability of an organization to coordinate activities, and acts as a barrier to focusing on market dynamics (Puledran et al., 2000). It also inhibits communication across the departments of an organization, reducing interfunctional performance, and consequently inhibiting a timely response to market needs which are in the core of the market orientation processes (Harris and Piercy, 1998; Pulendran et al., 2000). This relationship implies that low interdepartmental conflicts lead to high market orientation by firms whilst high interdepartmental conflicts lead to low market orientation by these firms (Akomea and Yeboah, 2011). This is because, as posited by Ghani and Mahmoud (2011), market orientation requires a firm to collect information about the customers and competitors, disseminate this information throughout the firm, and respond to it in a collaborative manner. However, if there is lack of cooperation and coordination among the employees of various departments, it restricts communication across departments, the
dissemination of market intelligence, and the subsequent organisation wide response leading to a low level of market orientation of a firm.

The negative relationship between interdepartmental conflict and market orientation has subsequently been identified by several studies (Bhuian 1998; Harris and Piercy, 1999; Puledran et al., 2000; Akomea and Yeboah, 2011). Harris and Piercy (1999), for instance, identified a negative relationship between conflicting behaviour within an organization and the degree of market orientation. Jaworski and Kohli (1993) reiterate the position by indicating that interdepartmental conflict or disagreements between functional areas of an organization are likely to reduce or inhibit the level of market orientation. In effect, interdepartmental conflict is an antecedent to marketing orientation and organizations can be marketing oriented if efforts are made to reduce it in organisations.

Ghani and Mahmood (2011) however, consistent with views expressed by Ngansathil (2001), found no relationship between interdepartmental conflict and market orientation. Ngansathil (2001) provided the reason for the non-significant relationship to be the nature of the culture of Thailand in his case study, where according to him, conflict may exist but it is not made explicit and is resolved through compromises. These findings by Ghani and Mahmood (2011) and Ngansathil (2001) seem to be an exception rather than the norm to the interdepartmental conflict and market orientation relationship.

**Interdepartmental Connectedness**

Connectedness refers to the degree of formal and informal direct contacts among employees across departments (Jaworski and Kohli, 1993). It is manifested, according to Robbins and Judge (2011), in organizations through interdependent departmental goals and functions that are helpful for sharing and responding to market information. Although interconnectedness might be geared more toward the day-to-day operations than the implementation of a strategy, (such as long-term market orientation), managers might use interconnectedness for improving social relationships and networking, which in turn may facilitate market oriented activities (Dwairi et al., 2012).

This unofficial contact, according to Kirca et al. (2005), enhances market orientation by leading to a greater sharing and use of information among workers. If there is more association among departments, workers tend to be more integrated when it comes to meeting customer’s demands. Where connectedness exists, interaction is enhanced and the exchange
of information is facilitated. Puledran et al. (2000) also found this contributes significantly to higher levels of market orientation and helps a firm to act in a more consistent manner across the organization towards their customers. Ignacio et al. (2002) further found that interdepartmental connectedness facilitates the development of groups of activities that are aimed at satisfying the target market.

In the telecommunications environment where products are serviced and promoted through a number of departments concurrently, it is expected that connectedness will be related to market orientation because interdepartmental connectedness promotes interfunctional coordination leading to a more frequent communication, which is likely to enable the dissemination of collected market intelligence and facilitate a timely market focused response (Harris and Piercy, 1998; Puledran et al., 2000). This point is further buttressed by Kohli and Jaworski (1990) when they state that interdepartmental connectedness enhances the development of market intelligence and sharing across the entire organizational departments and thus promoting greater levels of market orientation.

Kohli and Jaworski (1990) find support in the literature (Argyris, 1965; Deshpande and Zaltman, 1982; Malik and Naeem, 2009; Kennedy, Goolsby and Arnould, 2003; Mahmoud, 2011) for their hypothesis that low levels of concern for ideas of other departments (including individuals within the departments) and the lack of interdepartmental connectedness hampered the dissemination of market intelligence among departments and impeded overall market responsiveness of the firm; thus inter-connectedness is considered an important element in an organization being marketing oriented.

Although Ghani and Mahooud (2011) found no such relationship between interdepartmental connectedness and market orientation, they intimate that interdepartmental connectedness, helps easy and quick flow of information among departments, encourages interdependency within the organisation where employees frequently interact and exchange information regarding the developments in the market and respond to them in a coordinated manner.

3.6.1.3 Organizational Systems

The third set of internal antecedents refers to organizational systems, consisting of formalization, centralization, and reward systems orientation. Keelson (2014) indicates that researchers (Matsuno et al., 2002; Zebal, 2003; Kaynak and Kara, 2004; Trueman, 2004;
Walter et al., 2007; Tomaskova, 2009) have used centralization and formalization as scales to measure market orientation.
Organizational systems may hinder or facilitate the development of a market orientation by new product development teams and the innovations generated by these teams (Jansen et al., 2005). Organizational characteristics such as decentralization, formalisation and connectedness, according to Gibson and Birkinshaw (2004), may be needed to develop exploratory and exploitative innovations simultaneously.

Centralization and Formalization
Centralization refers to the level of hierarchy and the level of the delegation of decision-making authority throughout an organization and the extent of participation by organizational members in decision-making processes (Robbins and Judge, 2011). It is the degree to which rules and regulations are defined within an organization (Jaworski and Kohli, 1993), and the extent to which written documentations define rules, procedures, authority relations, communications, norms, and sanctions, which prescribe the rights and duties of employees (Robbins and Judge, 2011). It is the centrality of decision-making authority and responsibility in the organization. Centralization is maximized when one person makes all the final decisions (Jaworski and Kohli, 1993). It has been found that centralization hinders orientation by reducing intelligence generation, dissemination and responsiveness (Kohli and Jaworski, 1993) because, as suggested by Walter et al. (2007), centralization tends to slow down the development, dissemination, and application of market knowledge.

Formalization, according to Ghani and Mahmood (2011), refers to the setting and strict follow up of formal rules and regulations within an organization, which results in bureaucracy, a term that is often associated with delayed decision making. Formalization is inversely related to market orientation because it inhibits a firms’ information utilization and, thus, the development of effective responses to changes in the marketplace (Kirca et al., 2005). Vieira (2010), however, indicates that some degree of formalization (Gonçalves-Filho, Gonçalves and Veiga, 2002) and control (Dalmoro and Faleiro, 2007) exist when executing the work, but they are created specifically to give more focus on the correct tasks. In that sense, he references Révillon (2005) stating that it is assumed that these roles, although inhibiting a firms’ information utilization, help a firm’s development of effective job execution, since the guidelines were created to be followed, to learn how to do in a different situation and can serve as guidelines to new workers.
Robbins and Judge (2011) suggest that formalization and centralization are the two variables commonly used to differentiate between organic and mechanical structures. Whereas formalization and centralization are characteristics of a mechanical structure, less formalization (informal) and decentralization, according to them, are characteristics of organic structures. Management and marketing literature, according to Dwairi et al. (2012), are in consensus in relating an organization’s abilities to successfully respond to its environment with organic versus mechanical structures. Organizations rely on these organizational structures and systems to achieve standardization and control across employees and departments, and to maintain or alter patterns in organizational activities and behaviour (Dwairi et al., 2012). However, an organizational structure has to fit its needs. Otherwise, when an organizational structure is out of alignment with the organization’s needs, one or more of the following symptoms of structural deficiency appears: the creation of bureaucracy; heightened levels of uncertainty; interdepartmental conflict and competition; hindered communication flow; slower decision-making processes; and a less innovative response to a changing environment (Robbins and Judge, 2011).

Jaworski and Kohli (1993) postulate that formalization and centralization have been found to be negative correlates of market oriented activities. In a formal and centralized context, work-related behaviours are largely controlled by restrictive rules and procedures, which create barriers to communication flows, leave little room for individual freedom, and limit the number of participants in the decision-making processes. These conditions lower employees’ and managers’ commitment and incentives to participate in developing effective market formalization and centralization, the lack of which, according to Narver and Slater (1995), discourages the exchange of information and ideas and hinders the generation, dissemination and utilization of market intelligence.

**Market Based Reward System**

Reward systems refer to employee performance and evaluation systems that focus on market-based measures of performance. Market oriented reward systems increase market orientation (and thereby performance) by rewarding employees for specific measurable outcomes and behaviours (Kohli and Jaworski, 1990; Ruekert, 1992). Ghani and Mahmood (2011) indicate that reward systems have shown a strong positive effect on market orientation in profit-based firms (Kohli and Jaworski, 1993; Puledran et al., 2000; Kirca et al., 2005). Kirca et al. (2005) established that the design of the reward system has the strongest impact on market
orientation of all the dimensions in their study. The “right” reward system facilitates a market orientation.

However, the concept of rewarding employees and their managers is a puzzling issue in organizational and administrative behaviour literature (Dwairi et al., 2012). While there is an agreement among scholars about the importance of rewards to creativity and performance, there is, however, no agreement on what reward will be effective in the motivation of employees (Robbins and Judge, 2011).

3.6.2 External Factors

External antecedents are environmental factors beyond the organization (Zebal and Goodwin, 2011). Examples of external antecedents found to be significantly related to market orientation, according to Zebal and Goodwin (2011), are market turbulence (Jaworski and Kohli, 1993) and competitive intensity (Alvontis and Gounaris, 1999). Also proposed is market dynamism (Kohli and Jaworski, 1990; Pelham and Wilson, 1996). In a stable business environment, few adjustments to the marketing mix are needed, requiring a slow level of market orientation. As stated by Dwaire et al. (2012), under situations of stable market, technological and competitive environments, expending resources for market-oriented activities would be superfluous.

Competition

When competition increases for the same pool of customers, actual and potential, it is expected that, for an organization to retain its market share, market orientation strategies will have to be adopted to enable the firm to effectively compete (Zebal and Goodwin, 2011). Furthermore, the lower the competitive intensity, the more a firm can ‘get away with’ a low level of market orientation (Pelham and Wilson, 1996). It seems clear that when there is competitive intensity, organizations appear more tightly focused on market orientation activities. It is probable that such activities are seen as those that will build or hold the market share and hence seemingly require a stronger commitment. When competitive intensity is not present, there is less risk to the firm regarding market share or even financial outcomes (Zebal and Goodwin, 2011). The existence of strong competition, according to Mahmoud (2011), leads to an even greater relationship between market orientation and performance.
Market Turbulence
Market turbulence is defined as the degree to which the composition of customers and their preferences have changed over a period of time (Jaworski and Kohli, 1993). It is how quickly customers can change preferences in a particular period of time (Zebal and Goodwin, 2011). Jaworski and Kohli (1993) explained that, in turbulent markets, firms have to keep modifying their products or services to cope with the customers’ changing preferences. In stable markets, the need to do so is considerably reduced. Therefore, firms operating in more turbulent markets are likely to have a greater need to be market oriented compared to firms which operate in less turbulent markets (Bunic, 2007).

When turbulence is low, organizations have reduced pressure to adopt a market orientation stance given the stability in the market and/or the lack of effective competition for customers (Zebal and Goodwin, 2011). Once customers begin to have the opportunity to switch preferences, market turbulence increases and organizations are forced to adopt a strategy of market orientation if customers are to be retained (Puledron et al., 2000). Kohli and Jaworski (1990) argue that in a stable environment, few adjustments to the marketing mix are needed, requiring a low level of market orientation.

Technology
Bunic (2007) references Jaworski and Kohli (1990) and defines technological turbulence as the extent to which technology has changed in a particular industry. In industries characterized by rapidly changing technology, market orientation may not be as important as it is in technologically stable industries. Therefore, market orientation is likely to be more strongly related to business performance in low rather than highly turbulent technological industries (Bunic, 2007).

Keelson (2014) similarly refers to various authors (Varela and Del Rio, 2003; Olavarrieta and Friedmann, 2008) asserting the extent to which technological turbulence impacts on market orientation.

3.7 Consequences of Market Orientation
Market orientation has emerged as a significant antecedent of organizational performance and is presumed to contribute to the long-term success of a firm. Although previous results are conflicting, the significance of including market orientation in an integrated model of
determinants of performance is highlighted by several research findings (Narver and Slater, 1990; Jaworski and Kohli, 1993; Dawes 2000; Kumar 2002). According to Jaiyeoba (2011), it has been established that there is an influence of market orientation on customer orientation, organizational commitment, sales growth, financial performance, and profitability. Jaworski and Kohli’s (1993) model also expressed the fact that market orientation leads to an improved business performance and improved sense of pride and organizational commitment of employees as well. Opeda et al. (2011) make reference to various works (Jaworski and Kohli, 1993; Kirca et al., 2005) and indicate that consequences can be organized into four categories: organizational performance; customer consequences; innovation consequences; and employee consequences.

3.7.1 Economic Consequences

Since the implementation of the market orientation characterizes a firm’s intention to deliver superior values to its customers by satisfying their wants or needs on a continuous basis (Slater and Narver, 1994) there is a large body of literature dedicated to studying whether market orientation results in superior organizational performance (Mokhtar, 2009). Opeda et al. (2011) intimate that studies have verified a strong link between market orientation and performance (Speed and Smith, 1993; Ghosh et al., 1994; Matsuno et al., 2002; Kara, 2005; Vieira, 2010), while others have not (Jaworski and Kohli, 1993; Han et al., 1998; Pellham, 2005; Demirbag et al., 2006; Ghani and Mahmood 2011). The relationship with financial performance in terms of profitability has been a primary focus of research (Zebal and Goodwin, 2011). Not only has financial performance in terms of profitability been explored (Dawes, 2000; Kumar 2002; Rodrigues Cana et al., 2004; Kirca et al., 2005), but also subsets such as sales and market share (Jaworski and Kohli, 1993; Kirca et al., 2005). As has been consistently found there is a positive relationship between an organization’s financial performance and market orientation (Daud et al., 2013; Ogbonna and Ogwu 2013; Shah and Dubey, 2013).

Bunic (2007) states that academic scholars and business practitioners have advocated the importance of having a market orientation for the simple reason that market orientation can improve a firm’s business performance. Kirca et al. (2005) also state that marketing strategy literature posits that market orientation provides a firm with market-sensing and customer-linking capabilities that lead to superior business performance. No measure on its own can totally represent business performance. Economic performance of an organization is viewed
as the function of some financial indicators, such as return on sales (ROS), return on assets (ROA), sales growth and revenue/cost ratio (Bunic, 2007). However, according to Dauda (2010), organizational performance also consists of cost-based performance measures, which reflect the performance of a firm after accounting for the cost of implementing the strategy (profit measures) and revenue-based performance measures (sales and market share).

Jaworski and Kohli (1996) also identified the need to consider global measures that provide overall business performance mostly through comparisons of competitor performance. Raaij and Stoelhorst (2008) state that although the positive effect of a market orientation on performance had long been accepted as an article of faith, a vast amount of study has now empirically tested the relationship between the degree of market orientation and different aspects of business performance. They indicate that this relationship has been studied for large firms and small firms; for manufacturers as well as service suppliers; industrial firms and consumer goods companies; for profit and not-for-profit organizations; and in industrialized economies and in transition economies (González-Benito and González-Benito, 2005; Kirca et al., 2005; Rodriguez Cano et al., 2004). Raaij and Stoelhorst (2008) further indicate that despite the existence of ‘anomalies’ (Greenley, 1995; Appiah-Adu, 1998; Langerak, 2003), the dominant finding is that a firm’s degree of market orientation has a positive effect on (financial) business performance, more specifically on sales, market share, and profitability (Jaworski and Kohli, 1993; Slater and Narver, 1994; Pelham and Wilson, 1996; Kirca et al., 2005).

3.7.2 Employee Consequences

Non-economic performance is viewed as the function of employees’ organizational commitment and esprit de corps (Bunic, 2007). Previous studies (Jaworski and Kohli, 1993; Zebal, 2003; Mokhtar, 2009) statistically proved a strong and positive relationship between market orientation, and both organizational commitment and esprit de corps. Esprit de corps construct is very similar to the teamwork construct and it is a feeling of employees that they have to work together, to help individuals and the society in order to make a contribution to the organization (Bunic, 2007). Esprit de corps, according to Bunic (2007), is instrumental in reducing the gap between service quality specifications and actual delivery, thereby improving customers’ perceptions of service quality. Zebal and Goodwin (2011) quote Shoham and Rose (2001) to the effect that the adoption of market orientation in an organization has been found to unite employees with the firm around a common goal that is
dedicated to the fulfilment of customer expectations and meeting market needs. It thus adds purpose to the organization and in so doing enhances the team spirit of the employees as they pursue the common goal.

Kohli and Jaworski (1990) state that market orientation enhances organizational commitment by instilling a sense of pride and camaraderie among employees. In this case, organizational commitment includes willingness to sacrifice for the organization; team spirit; customer orientation (motivation of employees to satisfy customer needs); and job satisfaction. It is an internal feeling, belief, or a set of intentions that enhance an employee’s desire to remain with an organization (Mahmoud, 2011).

Organizational commitment relates directly to market orientation, and highlights increased organizational commitment towards market oriented activities that will increase the generation, dissemination, and response to market intelligence among firms (Mahmoud, 2011). Kohli and Jaworski (1990) further suggest that market orientation affords many psychological and social benefits to employees. It leads to a sense of pride in belonging to an organization in which all departments and individuals work toward the common goal of satisfying customers. Kohli and Jaworski (1993) also posit that achieving this objective results in employees sharing a feeling of contributing to the organization and having commitment to it.

The adoption of market orientation can reduce role conflict amongst employees and unite employees with the firm around a common goal that is dedicated to the fulfillment of customer expectations and meeting market needs (Dauda, 2010). It thus adds purpose to the organization and, in so doing, enhances the team spirit of the employees as they pursue the common goal (Shoham and Rose, 2001). Shoham et al. (2005) suggest that marketing orientation’s positive impact on performance might be greater than previously assumed because of its indirect impact on performance through organizational commitment and esprit de corps. Hafer and Gresham (2008) also suggest that commitment and esprit de corps could be as much causal antecedent variables as they could be consequences of a market orientation. Seminal researchers such as Ruekert (1992) and Siguaw et al. (1994) respectively found a positive effect of market orientation on job satisfaction, trust in leadership and organizational commitment, and a negative effect on role stress, as well as positive effects on job satisfaction and organizational commitment of sales people.
3.7.3 Customer Consequences

Research, according to Vieira (2010), has found a significant and positive association between market orientation and customer orientation (Brady and Cronin, 2001; Jaworski and Kohli, 1993, 1996; Kirca et al., 2005). Vieira’s (2010) assertion is reinforced by various studies that have provided empirical support for the positive effects of market orientation on customer perceived quality, customer satisfaction, and customer loyalty with the organization’s products and services (Becker and Homburg, 1999; Homburg and Pfleisser, 2000; Kirca et al., 2005). Zeval and Goodwin (2011) lend credence to this assertion when they state that positive customer responses have been associated with the market orientation of organizations. Market orientation enhances customer satisfaction and loyalty because firms are well positioned to anticipate customer needs and offer goods and services to satisfy those needs (Vieira, 2010).

These responses, according to Zeval and Goodwin (2011), can be categorized as customer satisfaction and customer retention. When customers are satisfied with the value being provided in a product they are more likely to repurchase (Zeval and Goodwin, 2011) and thus be retained. This assertion by Zeval and Goodwin (2011) finds support in the seminal work by Kholi and Jaworski (1990) that market orientation is related to satisfied customers who both recommend the product to other potential customers and keep on repurchasing. Woodruff (1997) suggests that market oriented organizations are able to translate their information advantage into products and services that are evaluated more positively by customers.

3.8 Market Orientation in Developing Countries

In almost all previous studies in the field of marketing orientation, the primary emphasis has been on the market orientation of manufacturing firms in developed economies, with acute paucity of such research in developing economies. Despite the importance of market orientation in the modern business world, the need for market orientation investigations in developing countries is still ignored by researchers. Companies worldwide of different sizes and sectors are operating in an increasingly dynamic, complex and unpredictable environment (O’ Regan et al., 2006). This suggests many firms should seek new ways of conducting their business through some kind of innovation to make profit and stay ahead of competition.
In mature economies characterised by the prevalence of buyers’ markets, stable growth and intense competition, firms that are more oriented towards customers’ needs and competitors’ action will do better (Ellis, 2005). In contrast, in developing economies characterized by ill-defined market boundaries and strong or burgeoning demand, firms may be able to “get away with” a minimal amount of market orientation (Kohli and Jaworski, 1990). Until recently, however, there has been relatively little research into the applicability of the market orientation construct in developing economies (Hooley et al., 2003). Thus, although Narver and Slater’s (1990) model, Kohli and Jaworki (1990) and Jaworski and Kohli’s (1993) models have been tested in the sub-Saharan profit-based context, there has been a call for further research to test the validity and reliability of these models in other emerging sub-Saharan countries (Chelariu et al., 2002; Burgess and Nyajeka, 2007; Farley, Hoeing and Ismail, 2008).

There are scholarly arguments pertaining to the application of marketing philosophy or knowledge in developing economies. The implementation of marketing philosophy in developing economies has attracted some criticisms with respect to such constraining factors as strong government control, economic shortages, and general behaviour towards marketing knowledge and activities (Winston and Dadzie, 2000). However, some scholars have argued that these environmental factors do not detract from the implementation of marketing knowledge and that marketing should be of benefit to all companies the world over including developing countries (Opeda et al., 2011).

Thus, it may be stated that while market orientation practices may be beneficial for some businesses, it may not be for some other businesses as a result of variations in environments, practices, contexts and cultures (Sundqvist et al., 2000). Bhuian (1998) posits that generalizability of the market orientation construct and its variants to other environments are questionable. Business firms cannot assume that market orientation findings in one firm or culture context work well in other countries with different business cultures (Aziz and Yassin, 2010). Thus, the disagreement on the relationship between market orientation and business performance among scholars and the theoretical gap in developing countries, particularly in Ghana’s mobile telecommunications sector, provides a new empirical context, which underpins the study.
3.8.1 Marketing Orientation in Ghana

In the Ghanaian context, there have been some empirical studies of market orientation and firm performance. Kuada and Buatsi (2005) studied market orientation and management practices in Ghanaian firms using Jaworski and Kohli’s (1993) model and confirmed its applicability in developing countries, such as Ghana. They intimate that firms that show strong top management commitment to market-oriented philosophy and reward their employees on the basis of their degree of customer orientation become more market oriented. They also showed that the adoption of market-oriented dispositions depends on significant human-resource development, organizational restructuring, and reallocation of resources within a company. Building on the understanding that market orientation is an organization-wide responsibility, Kuada and Buatsi (2005) argued that the top management of firms in developing countries must make efforts to decentralize the firm’s decision-making structures; to improve the skills, competencies, and authority of middle-level managers; and empower frontline staff to gain insights into customer problems and needs and to respond to them adequately and promptly. Without top management’s commitment to market orientation, such firms may acquire the “trappings” of market orientation but may remain non-market oriented at the core (Kuada and Buatsi, 2005).

Yeboah and Akomea (2011) replicated Jaworski and Kohli’s (1993) model by testing its applicability within Ghana’s pharmaceutical industry and concluded that due to improved microenvironment indicators, market orientation in the industry has grown significantly. They also indicated a significant relationship between market orientation and performance of firms in the pharmaceuticals industry, and that the practice of market orientation in the various categories of the sector differs with an increase in size and organizational commitment of the firms involved.

Mahmoud (2011) studied market orientation and business performance among small and medium enterprises (SMEs) in Ghana. Dissatisfied with the emphasis of market orientation research among large scale organizations, and even with those undertaken in the absence of a common ground on the appropriateness of this management toolkit to SMEs, he decided to research into small and medium enterprises. From his study, he indicated that the development of market orientation in this sector rests on the attitude of owners/managers and, more importantly, the repeatedly reported performance implication of market orientation,
which does not elude Ghanaian SMEs. More specifically, market orientation leads to superior performance under ceaseless competitive conditions.

Mahmoud et al.’s (2011) study of banks in Ghana revealed that customer orientation seems to dominate the patterns of bank market orientation and places strong emphasis on intelligence dissemination. They also found that top management emphasis, market based reward systems, and interdepartmental coordination are the essential internal values for developing market orientation in Ghanaian banks. They also found that market orientation is a significant factor for achieving high levels of employees’ esprit de corps and customer satisfaction, which are particularly viable for banks facing severe competition, technological turbulence and are operating in a weak economy. They suggest that without competition and technological turbulence, a weak general economy and market orientation are an insignificant factor for business success.

Keelson (2012) studied market orientation and organizational performances of listed companies in Ghana. From his study, he indicated that top management factors, on the average, had a statistically significant relationship with market orientation; organizational factors related highly with market orientation; and external factors had a statistically significant relationship with market orientation. Similarly, he found that the four components of market orientation have statistical significant correlation with both economic and non-economic performance of business. The results implied that the overall performance of listed companies in Ghana is linked to market orientation.

Boohene et al. (2012) explored the influence of market orientation on financial performance of small businesses. They found that there is a positive relationship between marketing orientation and its constituents and financial performance of small businesses. They recommend that owner/managers adopt the culture of market orientation since it can impact on their financial performance; and that policy makers and business development services providers should emphasise a marketing orientation strategy as part of their advisory services.

Notwithstanding the significant advances in the development of the market orientation theory there is still a void in the literature with respect to market orientation and performance theory in Ghana’s mobile telecommunications industry despite what Frempong (2009) calls the catalytic role mobile telephones play in business development. The closest in this respect is
the work by Mahmoud and Hinson (2005) who studied market orientation, innovation and corporate social responsibility practices in Ghana’s telecommunication sector. They conclude from their study that a firm’s degree of market orientation and corporate social responsibility (CSR) have significant impact on innovation, which then influences business performance. They further indicate that market orientation has a direct significant effect on CSR, which tends to mediate the influence of market orientation on business performance.

As intimated by Yeboah and Akomeah (2011), the above discussions indicate the importance of the strategic marketing construct for further empirical investigation. This is exacerbated by the absence of empirical research conducted on the market orientation construct and performance amongst the mobile telecommunications firms thus representing both an empirical and theoretical gap to which this proposed pragmatic study fills.

3.9 Dyadic Assessment of Market Orientation

Dyadic samples have a well-established presence in the literature on such topics as leader-member exchange theory, buyer-seller relationships, student-teacher interactions, and supply chain management research (Hafer and Gresham, 2008). However, despite the significant role of the marketing concept and its accompanying philosophy market orientation in the effective and efficient teaching and practice of marketing, researchers (Johnson and Verayankura, 2000; Zebal and Goodwin, 2011) have argued that the marketing literature is virtually void of any comprehensive studies that measure the extent of market orientation agreement/disagreement between buyer and seller.

Abeysekera and Bruning (2008), however, stress that an organisation’s orientation to its market can be assessed from three relational types: (A) between focal dyad members, (B) between a focal dyad member and its non-focal dyad buyers and sellers; or (C) as a self-reflection of its culture, process and practices. What Abeysekera and Bruning (2008) call the type C relationship is by far the most prevalent in the market orientation studies as most research focused on self-report, subjective measures of performance. The literature, according to Abeysekera and Bruning (2008), provides very little about the nature of dyadic relationships and therefore reverts to a relationship type C analysis-self-perceptions of an organization’s orientation to its customers, its competitors and the extent to which it coordinates its organizational elements marketing efforts at a point in time.
Narver and Slater (1990), for example studied business units’ self-assessment in the forestry industry, which is the method followed by almost every research since their publication. In each of the studies that followed this seminal work, members provided data about their organization’s perceived market orientation. Analyses were then conducted on the linkages between antecedents, moderators, mediators to market orientation, and then with respect to market orientation’s mediating influence upon firm performance (Abeysekera and Bruning, 2008). Jaworski and Kohli (1990), according to Johnson and Verayangkura (2000), also used subjective measures in determining firm performance.

Langerak (2001) has suggested that customers and suppliers should be the ones to determine a manufacturer’s level of market orientation, rather than ask manufacturers to self-report their levels. Langerak (2001), supported by Steinman et al. (2000), further states that although the great majority of empirical studies rely on manufacturers to self-report levels of market orientation, it has long been argued that the evaluation of how market oriented a given manufacturer is should come from external stakeholders, such as its customers and suppliers. From these, it will be realized that customer and supplier perspectives on the relationship with a manufacturer are most important in judging a manufacturer’s market orientation. As a result, researchers, according to Abeysekera and Bruning (2008), have in recent times sought alternative ways of modeling market orientation that reflects different points of view held by sellers and buyers. According to Langerak (2001), customer and supplier’s perspectives on the relationship with a manufacturer are most important in judging a manufacturer’s market orientation and are more meaningful. Therefore, using a multi-informant, dyadic format would capture and quantify the inter-functional market orientation level of the firm’s new product team better than a single respondent format (Gresham et al., 2006).

The dyadic approach developed in aforementioned studies offers two important issues. First, assessments of marketing relationships are incomplete without accounting for perspectives from both partners. Second, the market orientation-performance linkage is not fully understood if an account of the impact of dyadic relationships on market orientation is not made (Abeysekera and Bruning, 2008). The discrepancy of perceptions between business partners’ respective degrees of market orientation has thus become an issue in recent literature. Steinman et al. (2000) researched the effects of a perceived market orientation gap between leading Japanese and North American firms and their customers. In finding the existence of a market orientation gap, where suppliers rate their level of market orientation
higher than what is perceived by their customers, they highlight the need to understand how close the market orientation gap is. Furthermore, questions have been raised as to whether new organizational mechanisms that bring customers’ perceptions into the dyadic analysis may be a way of reducing the gap (Abeysekera and Bruning, 2008).

Johnson and Verayangkura (2000) suggest that a gap occurs when comparing customer reports of the supplier’s market orientation to the supplier’s own report of market orientation. This position was corroborated by Steinman et al. (2000), who reported the existence of a market orientation gap where suppliers assessed their own market orientation as being higher than their important customers own assessment of the firm’s market orientation. Puledran et al. (2000) also posit that it is expected that, in many instances, a significant gap may occur in terms of the perceived level of market orientation. Where this is so, however, analysis of the gap, according to them, may provide further understanding of both the antecedents and outcomes arising from an adoption of market orientation.

3.10 Summary of the Chapter

This chapter of the study has reviewed literature relevant to the study. The literature reviewed provides an understanding of market orientation and firm performance and the assessment of the dimensions of market orientation from a dyadic relationship. The chapter was organized into ten sections, consisting of the introduction, clarification of the market orientation/marketing orientation terminologies, evolution of the marketing concept/market orientation, different perspectives of marketing orientation, synthesis of marketing orientation, antecedents of marketing orientation, consequences of market orientation, marketing orientation in developing countries, dyadic assessment of the market orientation, and a summary of the chapter.

These various discussions have evidently established the dimensions of market orientation, internal and external antecedents of market orientation, consequences of market orientation, and a justification for the comparison of operators and customers’ assessment of the dimensions of marketing orientation. This subsequently assisted in the formulation of the hypotheses and development of the conceptual model for the study in the next chapter.

Bunic, Z., 2007. *Influence of Market Orientation on Business Performance Case: Croatian Manufacturing Companies* 16th EDAMBA Summer Academy, Soreze France


126


CHAPTER FOUR
HYPOTHESES AND CONCEPTUAL MODEL

4.1 Introduction
This chapter, based on literature reviewed in the previous chapter, in tandem with research objectives and questions, advances a conceptual model and nine hypotheses focusing on the various internal and external antecedents of marketing orientation, financial and non-financial consequences of market orientation, elements of market orientation, and a comparative assessment of the market orientation perspective of subscribers and operators. The chapter starts off with the introduction, has the second section expounding the hypotheses for the study, and the third expatiating on the conceptual model, with the final section providing a summary of the chapter.

4.2 Hypotheses

4.2.1 Antecedents of Market Orientation
Dwairie et al. (2012) cite Jaworski and Kohli (1993) and find support in Bunic (2007) to the effect that three categories of antecedents to market orientation, namely management characteristics, interdepartmental dynamics, and organizational systems have been identified in extant literature. Evidence from other findings, according to them, show that the level of these antecedents can promote or hinder the level of market orientation.

Senior Management Characteristics
Dwairi et al. (2012) in their study of market orientation in the public sector in Bahrain conclude that senior management is a crucial factor for an organization to become market oriented. Jaworski and Kohli (1993) in their conceptualization identified senior management characteristics as an antecedent of marketing orientation. These senior management characteristics, according to Jaworski and Kohli (1993), consist of top management emphasis, risk aversion, formal education and formal marketing training.

Top management, according to Baron (2010), plays a central role in shaping organizational values and culture. Dwairi et al. (2012) state that top management’s beliefs, understanding, and commitment to customer services are important to promoting market orientation as a strategy to enhance organizational performance. Webster (1988) intimates that senior managers play a vital role in shaping the organization’s values and direction; and until an organization’s senior managers show an indication that they are responding to customers’
needs there are signs and indication from the inclination of senior managers, to respond to customer needs, market orientation in an organization is likely to be weak. Nayebzadeh (2013) suggests that emphasis on market orientation with senior management has a positive relationship with generation and dissemination of information, responsiveness and market orientation.

Risk aversion, according to Robbins and Judge (2011), refers to top management’s propensity to avoid risks (or be risk averted) and be intolerant to failures. Response to market requirements, according to Nayebzadeh (2013), needs new products and services that are compatible with and conform to the needs and expectations of the customers, and products, services and new programmes that are associated with a high risk of failure. Jaworski and Kohli (1993) state that if senior managers do not show a tendency towards acceptance of risks and know possible failures as natural, they would provide new proposals in response to the changes in customer needs. Conversely, if managers are risk averters and do not tolerate failure, their subordinates give less importance to generation or dissemination of market information or responses to changing customers’ needs. Akomea and Yeboah (2011) cite Kohli and Jaworski (1990) and Jaworski and Kohli (1993) to the effect that top management’s willingness to take risks would encourage and facilitate organization-wide commitment to innovations and responsiveness. They further state that top management’s willingness to take risks and to accept occasional failures will motivate other managers to propose and introduce new products in response to changes in customers’ needs. On the other hand, a risk-aversion approach adopted by senior managers will permeate the organization and inhibit the process of market intelligence generation, dissemination, and response to changes in the market place. Therefore, top management’s willingness to take risks plays a critical role in fostering or inhibiting market orientation.

Dwairi et al. (2012) cite Caruana et al. (2002) to the effect that even though there are managers who do not appreciate marketing and are more occupied with production and availability of funds, there are others who have been exposed to the marketing concept through education and training in western institutions and have thus begun to embrace market orientation. According to them, these managers encourage market research and customer surveys, maintain regular contact with certain customers and public officials, emphasise the importance of sharing information, train employees to use information technology, and adapt an open-door policy to encourage employee participation and feedback. Harris (2000) further
reasoned that top managers whose background education does not predispose them towards market orientation acts as a barrier to the adoption of it. Zebal and Goodwin (2011) also in their study found that formal education was found to be statistically significant and negatively related to market orientation. As intimated by Akomea and Yeboah (2011) this confirms earlier research studies (Liu and Davies, 1997; Horng and Chen, 1998) to the effect that management training and formal marketing education determines the level of market orientation and its constituents.

Based on these arguments the following hypothesis is formulated:

**H1**: There is a positive relationship between senior management characteristics (top management emphasis, risk aversion, formal education and marketing training) and market orientation.

**Interdepartmental Dynamics**

The conceptual framework portrays interdepartmental dynamics made up of interdepartmental conflict and interdepartmental connectedness as antecedents of market orientation. Conflict between organizational units is said to be the existing tension between the units, which results from incompatibility between desired and actual responses (Nayebzadeh, 2013). Dwairi et al. (2012) indicate that interdepartmental conflict could occur among or within departments as a result of group or departmental identification of observable differences and frustration and that an increase in interdepartmental conflict discourages trust, communication, coordination, and interactions, which are necessary elements for an organization to be market oriented.

Conflict acts as a factor of disincentives towards market orientation because it prevents communication between units, and creates difficulties for the distribution of information (Jaworski and Kohli, 1993). Nayebzadeh (2013) refers to Levit (1969) to the effect that conflict between organizational units that can cause a loss for organization in using marketing concept, because it alters the relation between the units; therefore, distribution of information is difficult as part of market orientation. Furthermore, tension between the organizational units reduces the possibility of appropriate responses to market needs by these units (Kohli and Jaworski, 1990).
Connectedness, according to Kirca et al. (2005), refers to the degree of formal and informal direct contacts among employees across departments, and enhances market orientation by leading to greater sharing and using of information. Robbins and Judge (2011) state that connectedness in an organization manifests through interdependent departmental goals and functions that are helpful for sharing and responding to marketing information. As suggested by Kennedy, Goolsby and Arnould (2003) an organization that adopts customer orientation, by refining the understanding of the roles of leadership, interfunctional coordination, and the collection and dissemination of customer focused data in the transformation process, tends to increase its interdepartmental connectedness toward the market.

Mahmoud (2011) acknowledges the work of various authors (Harris and Piercy, 1999; Puledram et al., 2000) and states that interdepartmental connectedness promotes interfunctional coordination leading to more frequent communication which is likely to enable the dissemination of collected market intelligence and facilitates a timely market focused response. In the view of Dwairie et al. (2012), although interconnectedness might be geared more toward day-to-day operations than the implementation of a strategy, market orientation managers might use interconnectedness for improving social relationships and networking which in turn may facilitate market-oriented activities.

Kennedy et al. (2003) suggest that an organization that adopts a customer orientation by understanding the roles of leadership and interfunctional coordination, and by collecting and disseminating the customer-focused data in the transformation process tends to increase its interdepartmental connectedness toward the market. In Viera’s (2010) view, if there is more association among departments, workers tend to be more integrated when it comes to meeting customers’ demands.

Based on the arguments, the following hypothesis is formulated:

\[ H2: \text{There is a positive relationship between interdepartmental dynamics (connectedness and conflict) and market orientation.} \]
Organizational Systems
Organizational systems consisting of formalization, centralization and market based reward systems have been classified as antecedents of market orientation in an organization. Formalisation refers to the degree to which written documentations define rules, procedures, authority relations, communications, norms, and sanctions, which prescribe the rights and duties of employees (Robbins and Judge, 2011).

Malik and Naeem (2009) state that formalization may actually expedite the processes of external information gathering and its dissemination across the organization to effectively respond to the requirements of the market. This means that the strong emphasis on those rules and regulations within the organisations that are less adaptive to the external environment negatively influence the level of a firm’s market orientation (Ghani and Mahmood, 2011).

Centralization refers to the level of hierarchy and the amount of delegation of decision-making authority throughout an organization and the extent of participation by organizational members in the decision-making processes (Dwairie et al., 2012). It represents a situation in which the powers of all sorts of decision making are consolidated at a central point in an organisation (Pulendran et al., 2000).

Jaworski and Kohli (1993) intimate that formalization and centralization are negative correlates of market oriented activities. In a formal and centralized context, work-related behaviours are largely controlled by restrictive rules and procedures, which create barriers to communication flow, leave little room for individual freedom, and limit the number of participants in the decision-making processes. These conditions lower employees’ and managers’ commitments and incentive to participate in developing effective market formalization and centralization, the lack of which, according to Slater and Narver (1995), discourages the exchange of information and ideas and hinders the generation, dissemination, and utilization of marketing intelligence.

In a formal and centralized context, work-related behaviours are largely controlled by restrictive rules and procedures, which create barriers to communication flows, leave little room for individual freedom and limit the number of participants in the decision-making processes. These conditions lower employees’ and managers’ commitments and incentives to
participate in developing effective market formalization, and centralization (Dwairie et al. 2012). Thus, centralization and formalization are related to overall market orientation (Harris, 2000).

Nayebzadeh (2013) states that the reward systems in an organization formulate employee behaviour of the organization. Puledran et al. (2000) recommend the use of a market based reward system for reducing role conflict and job ambiguity. If the evaluation performance of the member of an organization is based on profitability and short term sales there is a probability that employees of these organizations are focused on the same criteria and do not concentrate on the market factors such as customer satisfaction; and market oriented behaviour as a basis for distributing benefits (Jaworski and Kohli, 1993). Mahmoud (2011) references Webster (1988) and Ruekert (1992) to the effect that the key to developing a market-driven, customer oriented business lies in how managers are evaluated and rewarded, and that the extent of organizational market orientation is “positively associated with organizational practices in recruiting, training and rewarding of personnel”. This is because, according to Nayebzadeh (2013), in organizations where the emphasize is on customer satisfaction and market oriented behaviour as a basis for distributing benefits, people give more importance to generation, dissemination and responsiveness to the market needs.

As stated by Nayebzadeh (2013), since the specialization or departmentalization is accounted for as a barrier to communication within an organization and between specialized units in the organization, and formalization and concentration (centralization) lead to the adoption of low compatibility of the organization with environmental changes and market factors, these three variables can have a significant impact on market orientation. Based on the factors identified and discussed, the following hypothesis is proposed:

**H3:** There is a positive relationship between organizational system (reward systems, formalization, and centralization) and market orientation.

**External Factors**

Previous studies have found that environmental factors such as market turbulence and competitive intensity strengthen the relationship between market orientation and performance (Harris, 2001; Kim, 2003). Market turbulence is characterized by the rate of change in customers’ needs and preferences (Bunic, 2007). It is how quickly customers can change
preferences in a particular period of time. When market turbulence is low, organizations have reduced pressure to adopt a market orientation stance given the stability in the market and/or the lack of effective competition for customers (Zebal and Goodwin, 2011).

Halpern and Pagliari (2008), in their study of airports in Europe, intimate that in turbulent markets, it is likely that airports will benefit from being market orientated because they will be able to understand and respond to changes in the needs and preferences of existing or potential airline customers. Thus, according to Halpern and Pagliari (2008), market orientation is strong when market turbulence is high and when airports are focused on developing leisure services, corroborating the assertion of previous studies by Kim (2003) and Harris (2001) that environmental turbulence is positively related to a firm’s level of market orientation. Bunic (2007), cites Jaworski and Kohli (1993) that in turbulent markets, firms have to keep modifying their products or services to cope with changing customers’ preferences. In stable markets, the need to do so is considerably reduced. Therefore, firms operating in more turbulent markets are likely to have a greater need to be market orientated compared to firms which operate in less turbulent markets.

Competitive intensity is characterized by an environment in which customers have multiple choices (Kohli and Jaworski, 1990). Halpern and Pagliari (2008) again in their study of airports in Europe state that in an environment where airlines have multiple choices, market orientation is expected to support the competitive advantage of an airport and encourage superior performance. This is because airports that fail to satisfy airline needs and preferences are more likely to lose out to competitors. Wood and Bhuian (1993) suggest that the greater the perceived competition, the greater the tendency to accept a market orientation.

Kohli and Jaworski (1990) state that market orientation might not be as important as it is in technologically stable industries with Grewaj and Tansuhaj (2001) suggesting that technological orientation of a company reduces the importance of market orientation. In industries characterized by rapidly changing technology, market orientation may not be as important as it is in technologically stable industries. Therefore, market orientation is likely to be more strongly related to business performance in low rather than highly turbulent industries (Bunic, 2007). Jaworski and Kohli’s (1993) study confirmed the direct relation between market turbulence, and competitive intensity in relation to market orientation-
A firm may thus not reap the full benefits of market orientation in the presence of external factors such as decreasing stability, and turbulent technological conditions (Mahmoud, 2011). The main thrust of studies, according to Mahmoud (2011), into the effect of external factors on the market orientation-performance relationship is that while external factors increase market uncertainties, the generation of and response to market intelligence are essentials to face market uncertainties. Based on the above discussion, the following hypothesis is formulated:

**H4:** There is a positive relationship between external environmental factors (market turbulence, competitive intensity and technological turbulence) and market orientation.

### 4.2.2 Elements of Market Orientation

Hou (2008) cites Kohli and Jaworski (1990) and Narver and Slater (1990) to the effect that market-oriented firms follow specific and identifiable routines and processes, such as generating information about customers through monitoring and assessing their changing needs and desires, disseminating that information throughout the firm, and revising business strategies to enhance customer value. Nayebzadeh (2013) defines market orientation as the capability of an organization in generation, distribution and response to information related to an extensive series of market factors, such as customers, competitors, suppliers, cultural/social trends, legal factors and macro-economic factors.

Hou (2008) further cites various researchers and indicates that some researchers regard market orientation as an organizational decision making process, which places priority on a firm’s customers (Shapiro, 1988), upgrades the organization towards customers through the design of the organizational management system (Becker and Homburg, 1999), responds to the needs and wants of customers (Kohli and Jaworski, 1990); continuously creates superior values for customers (Narver and Slater, 1990), implements the strategy (Ruekert, 1992), puts customer’s interests first (Deshpande et al., 1993), satisfies customers’ obvious and potential needs to gain long-term advantage with high learning orientation (Day, 1992; Sinkula, 1994), and establishes long-term relationships by awareness of the changing needs of customers (Baker and Sinkula, 1999; Hadcroft and Jarrat, 2007). Insufficient understanding of the
customer, will lead to a loss of customers to competitors, and a loss of profitability. It thus behoves on organizations to place emphasis on its customers if they are to be market oriented.

Market orientation also requires organizations to generate information on their customers. Customer information acquisition in the market-oriented firm is concerned with understanding exactly what customers value. Kurtinaitiene (2005), after his study of the telecommunications sector in the European Union (EU), asserts that managers in the sector devote most attention to customer intelligence generation and that EU network operators showed that their attention is focused on customer and competitor intelligence generation. Sinkula, Baker and Noordewier (1997) stated that marketing strategies can be influenced by market information in market-oriented enterprises. Kohli and Jaworski (1990) also note that market orientation includes monitoring factors, such as government regulations and competition that influence the needs and preferences of their customers. Hou (2008), however, cites some researchers (Narver and Slater, 1990; MacLahlan, 2004) to demonstrate the need for organization to apply information acquisition techniques beyond simple customer satisfaction measurement approaches.

Market orientation entails the interfunctional dissemination of information, and the interaction, cooperation and relationship of marketing activities in the organization. Ruekert (1992) stressed the need for interaction, cooperation and a relationship of marketing strategies to satisfy customers’ needs. Deshpande et al. (1993) also state that strengthening the interfunction and inter-cooperation of different departments can satisfy the continuing needs and wants of customers. Kohli and Jaworksi (1990) posit that by means of communicating horizontally among the members of the organization, every department is able to understand the marketing information. Narver and Slater (1990) enhance this assertion by indicating that interfunctional mediation can facilitate the sale and coordination of all sorts of resources. Interfunctional coordination, according to Becker and Homburg (1999), is consistent with customer demands.

The final component of market orientation as indicated in the framework is intelligence responsiveness or taking action on the market intelligence. Stated variously, Shapiro (1988), Kohli and Jaworski (1990), Narver and Slater (1990), and Ruekert (1992) all assent to the need for organizations to take the necessary action to actualize into reality the needs of the customers based on the information generated and disseminated (Gheysari et al., 2012). As
summarized by Raaij and Stoelhorst (2008), market orientated organizations are ones that are well informed about the market and have the ability to use that information to advantage to create superior value for their target customers. Based on these arguments, the study hypothesizes that:

\[ H5: \text{Ghana’s mobile telecommunication operators exhibit the elements of market orientation of customer focus, intelligence generation, dissemination and responsiveness.} \]

### 4.2.3 Consequences of Market Orientation

Nayebzadeh (2013) states that studies have shown that market orientation has significant consequences for the organization, which can result in business performance in the framework of financial, market and organization consequences. Zebal and Goodwin (2011) also state that outcomes can be categorized as financial, customer associated, and employee associated. Opeda et al. (2011) cite Jaworski and Kohli (1990) and Kirca et al. (2005) and conclude that business performance, as a result of market orientation, is organized into three categories: organizational performance; customer consequences; and employee consequences.

#### Employee Consequences

Kohli and Jaworski (1990) argue that by spreading a sense of pride and camaraderie among employees, market orientation enhances organizational commitment, employee-team spirit and customer orientation. Johnson and Verayankura (2000) confirmed earlier research findings that market orientation positively affects various organizational outcomes. Specifically, they found that market orientation behaviour is positively correlated with organizational commitment and espirit de corps. Various studies have also established the relationship between market orientation, organizational commitment (Castro et al., 2005; Matsuno et al., 2005) and espirit de corps (Matsuno et al., 2005).

Citing various studies (Kohli and Jaworski, 1990; Kohli et al., 1993; Jaworki and Kohli, 1993; Jones et al., 2003; Matsuno et al., 2005; Powpaka, 2006; Ellinger et al., 2008; Chen and Quester, 2009; Albinay, 2010; Cabera-Saurez et al., 2011), Nayebzadeh (2013) intimates that esprit de corps and employee commitment can be improved when organizations try to increase the extent of market orientation and information generation, dissemination and responsiveness in all departments. Shoham et al. (2005) further reiterate this point by
suggesting that committed employees are (a) less likely to be absent from work or to resign from their firms, (b) are more likely to go beyond required norms to contribute to the attainment of organizational goals and (c) are willing to put more effort into the wellbeing of the organization if market oriented.

Johnson and Verayankura (2000) also state that market orientation was positively related to organizational commitment and organizational esprit de corps. Their study found that most of the Asian telecom employees are highly committed to their organization and exhibit high esprit de corps. They explain that this was not surprising since many Asian telecom firms have established guidelines for their employees regarding commitment and esprit de corps. Many have rewarded their employees based on improved levels of customer satisfaction, which makes it quite clear that the employees need to focus on how buyers assess them.

Asian telecom firms with a strong market orientation have tended to have employees who were more committed and have greater esprit de corps within their ranks. Higher esprit de corps creates a sense of pride in belonging to an organization in which all the departments and individuals work toward a common goal, such as satisfying customers or bringing high returns to the company. These results compare favourably to earlier findings from Kohli, Jaworski and Kumar (1993) who found that market orientation led to employees having higher esprit de corps and were more committed to their organizations.

On the basis of these arguments, the following hypothesis is formulated:

\textit{H6: There is a positive relationship between market orientation and employee consequence of employee commitment and employee esprit de corps.}

\textbf{Customer Consequences}

Positive customer responses have also been associated with the market orientation of organizations. Such responses can be categorized as customer satisfaction and customer retention (Zebal and Goodwin, 2011). Researchers, according to Nayebzadeh (2013), have pointed out the importance of customer satisfaction and its impact from activities and cultural elements of market orientation. For customers, according to Zebal and Goodwin (2011), they are more likely to be satisfied with the products and services received and thus not unexpected that customer retention is also a significantly related outcome.
Narver and Slater (1995), in their seminal study, believed that market orientation leads to the strengthening of the culture of learning and finally follows customer satisfaction. Similarly, Gainer and Padanyi (2005) in their study also confirmed the two-dimension of customer satisfaction and growth of customers as a result of market orientation. Kohli and Jaworski (1990) also in their pivotal study suggested that market orientation leads to satisfied customers who spread the good word regarding the product to others and keep purchasing the product on a continuous basis.

Thus, the following hypothesis is formulated:

*H7: There is a positive relationship between market orientation and customer consequences of customer satisfaction and customer repeat purchases.*

**Financial Performance**

Matsuno et al. (2005) point out a comprehensive set of objective and subjective criteria including return on asset, return on sales, return on investment, sales growth, relative market share, percent sales of new products from the total sales, and also overall performance as consequences of extended market orientation (EMO).

Nayebzadeh (2013) cites several studies (Nwokah, 2008; Olavarriet and Friedmann, 2008; Rapp et al., 2011; Castro et al., 2005; Smimova et al., 2011) and indicates that the relationship between market orientation and financial performance and market performance has been confirmed. Several studies, according to Dwairi et al. (2012), conducted in business and public oriented organizations using the subjective measure of performance have established a positive relationship between market orientation and performance. This is in conformity with several theoretical and empirical studies (Narver and Slater, 1990; Kohli and Jaworski, 1990; Jaworski and Kohli, 1993; Greenly, 1995; Slater and Narver, 1995) that have demonstrated a positive relationship between market orientation and organizational performance.

Kurtianaitiene (2005) assessed market orientation and performance in the European Union (EU) mobile telecommunications industry. For his study, performance figures were evaluated against the biggest competitor in the market taking into account the criteria of profitability,
number of subscribers, growth of the subscriber base, and growth in market share. From the study, a high correlation was established between marketing orientation and profitability, confirming the conclusion drawn by other researchers that profitability is a result of marketing orientation. However, even though the study established a correlation between marketing orientation and the growth of market share, it exhibited the lowest correlation. The study explained it by the fact that the EU mobile telecommunication firms operate under saturated market conditions thus current efforts are focused not on expansion of market share but rather on increasing revenue from existing customers. To achieve that aim, mobile telecommunication operators are developing data services and other value-added services in order to increase the average expenditure level per subscriber. Overall, Kurtinaitiene’s (2005) study confirmed a positive relationship between marketing orientation and enterprise performance, and between marketing orientation and learning orientation in the EU mobile telecommunications industry. He, however, states that the marketing orientation evaluation in most cases corresponds to the actual position each operator occupies in the mobile telecommunications market in its country.

Johnson and Veryankura (2000) posit that market orientation was not positively related to business performance when assessed using a self-report measure. However, when examining annual report data in their study (that is, objective performance data), it was revealed that revenue growth and operating profit grew more than 45% over the previous two years. This was contrary to earlier research that found market orientation was not significantly related to business performance when using combined business performance measures (market share, sales growth, and size of revenue and profitability).

Ashour (2010) in his study of marketing orientation and competitive advantage in the Jordanian telecommunication sector measured the business performance of mobile telecom operators by the firm’s ability to achieve competitive advantage presented in both quantitative values of growth rates of marketing and financial indicators: ARPU (average return per user), revenue and market share. In addition to growth of revenue, financial performance was measured by ARPU growth because of its common usage in telecommunication markets, and its availability as secondary data in the form of a firm’s ARPU and market average ARPU, which renders it more appropriate for comparison and research. From his study, Ashour (2010) concluded that there is a high association between the adoption of a high level of marketing orientation and telecom service provider’s (TSP’s)
ability to achieve competitive advantage reflected in superior performance. He thus confirmed the association between a firm’s inclination toward marketing as an organizational philosophy and managing sustained competitive advantage. For him, TSPs with high levels of marketing orientation (attitudinal and behavioural) who consider marketing as a guiding philosophy for the whole organization with prime responsibility for identifying and meeting customers’ needs have the capabilities to manage firms’ recourses and skills advantageously and to achieve superior performance, with concomitant sustained competitive advantage.

From these studies the following hypothesis is formulated:

\[ H_8 \] There is a positive relationship between market orientation and financial performance (ARPU, profitability, number of subscribers, growth of the subscriber base and market share).

4.2.4 Dyadic Assessment of Market Orientation
An emerging perspective on market orientation suggests that strategic insights may be gained when firms take into account their customers’ view on the organization’s level of market orientation (Webb et al., 2001). They further intimate that the research offers evidence on the applicability of a customer-defined market orientation construct, and the existence of a gap between suppliers and customers’ evaluations of the supplier’s extent of market orientation. Johnson and Verayankura (2000) found that a gap occurs when comparing customer reports of the supplier’s market orientation to the supplier’s own report of market orientation in the Asian telecom/high technology market.

Earlier studies, such as that by Steinman et al. (2000), also reported the existence of a market orientation gap, where suppliers assessed their own market orientation as being higher than their important customers’ assessment of the firm’s market orientation. Steinman et al. (2000) state that there are indications that the gap is related to the length and importance of a business relationship which is supported by the assertion by Johnson and Verayangkura (2000) that the length and importance of a business relationship have some impact on the level of the gap and concluded in their study that market orientation perceptions do indeed differ between buyers and sellers. The findings suggest that the greater the divergence in perceptions of market orientation between customers and service providers, the lower the level of customer satisfaction (Webb et al., 2000).
Closing the gap will probably depend on changing perceptions of us versus them to “we” that is, away from the vocabulary of transaction toward vocabulary of relation (Steinman and Deshpande, 2000). The emerging perspective (Steinman, Desphandé and Farley 2000; Webb, Webster and Krepapa 2000) suggests that beneficial strategic insights may also be gained when firms take into account their customers’ view on the organization’s level of market orientation.

Based on these, the study posits that the market orientation perceptions of subscribers and providers of mobile telecommunications services will disagree, which lead to the hypothesis that:

\[ H9 \text{ Industry ratings of the dimensions of market orientation will significantly differ between subscribers and operators of mobile telecommunication services.} \]

### 4.3 Conceptual Model

Based on literature reviewed in Chapters Three and Four, and hypotheses formulated in this chapter, Figure 4.1 shows the market orientation model proposed for this study. The model provides for the antecedents of market orientation, consequences of market orientation, characteristics of market orientation, and a dyadic assessment of market orientation.
In figure 4.1, there are three main parts in the proposed model. The left side of model (A) provides for the internal and external antecedents of market orientation. Internal antecedents of market orientation as espoused in literature, firstly consists of senior management characteristics made up of top management emphasis, risk aversion, management training and formal marketing education; secondly, organizational systems, which also consist of centralization, formalization, and market based reward systems, and finally, interdepartmental dynamics which consist of interdepartmental conflict and interdepartmental connectedness. The external antecedent is made up of competition, market turbulence and technological turbulence.
The right side (C) of the model portrays the financial and non-financial consequences of market orientation. The non-financial consequences consist of employee consequences made of organizational commitment and esprit de corps, and customer consequences of customer satisfaction and repeat customer. Financial consequences consist of average revenue per user (APRU), market share, profitability and growth in the subscriber base.

Sandwiched (B) between the antecedents and consequences of market orientation from the perspective of both subscribers and operators are the components of market orientation that consist of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness. The middle part of the framework also portrays a market orientation gap between operators’ self-assessment of market orientation and subscribers’ assessment of operators’ market orientation in a dyadic assessment.

4.4 Summary of the Chapter

This chapter of the study, based on literature reviewed, has proposed a conceptual model and nine hypotheses for the study. This chapter was organized into four sections, consisting of the introduction, hypotheses, conceptual model, and summary of the chapter. Issues discussed here, to a large extent, influenced the instruments designed for data collection and the overall design of the methodology discussed in the next chapter. The efficacy of the conceptual model developed in this chapter is authenticated after the collection and analysis of data in subsequent chapters.
Reference


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CHAPTER FIVE
RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction
This chapter provides the methodology adopted for the study, and the processes for collecting and analysing data generated to help test the hypotheses formulated for the market orientation performance relationship in Ghana’s mobile telecommunications industry. The chapter is organised into eleven sections. It commences with a recap of the objectives, hypotheses and research questions for the study, an explanation of the philosophical stance, followed by the research methods and data sources. Thereafter, the sampling plan, data collection method, research instrument and administration of the research instrument are discussed. Finally, the methods for data analysis, ethical considerations and a summary of the chapter are presented.

5.2 Objectives, Research Questions and Hypotheses

5.2.1 Objectives
The study has the following objectives:
1. To ascertain the adoption levels of market orientation in Ghana’s mobile telecommunications industry.
2. To examine the gap between operators and subscribers perceived level of market orientation in Ghana’s mobile telecommunications industry.
3. To critically evaluate (internal and external) the dimensions of market-oriented behaviour for mobile telecommunication service providers (TSPs) in Ghana.
4. To examine the relationship between market orientation and business performance in the context of mobile telecommunications service providers in Ghana.

5.2.2 Research Questions
The study seeks to provide answers to the following questions:
1. What is the adoption level of market orientation in Ghana’s mobile telecommunications industry?
2. Is there a gap between operators and subscribers’ perceived level of market orientation in Ghana’s mobile telecommunications industry?
3. Are there specific dimensions (internal and external) of market-oriented behaviours necessary for mobile telecommunications operators in Ghana?
4. Is there a relationship between market orientation and business performance in Ghana’s mobile telecommunications industry?
5.2.3 Hypotheses

The hypotheses formulated for this study are:

H1 There is a positive relationship between senior management characteristics (top management emphasis, risk aversion, formal education and marketing training) and market orientation.

H2 There is a positive relationship between interdepartmental dynamics (connectedness and conflict) and market orientation.

H3 There is a positive relationship between organisational systems (reward systems, formalization and centralization) and market orientation.

H4 There is a positive relationship between external environmental factors (market turbulence, competitive intensity and technological turbulence) and market orientation.

H5 Ghana’s mobile telecommunications operators exhibit the elements of market orientation of customer emphasis, intelligence generation, dissemination and responsiveness.

H6 There is a positive relationship between market orientation and employee consequences of commitment and espirit de corps.

H7 There is a positive relationship between market orientation and customer consequence of customer satisfaction and customer repeat purchase.

H8 There is a positive relationship between market orientation and financial performance (ARPU, profitability, number of subscribers, market share, and growth of subscriber base).

H9 Industry ratings of market orientation will significantly differ between subscribers and providers of mobile telecommunications services.
5.2.4 Relations between Objectives, Research Questions and Hypotheses

The relationship between the objectives, research questions and hypotheses are presented in the table 5.1.

Table 5.1: Relations among Objectives, Research Questions and Hypotheses

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Research Questions</th>
<th>Hypotheses</th>
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<tr>
<td>Objective 1</td>
<td>Research Question 1</td>
<td>Hypothesis 5</td>
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<tr>
<td>Objective 2</td>
<td>Research Question 2</td>
<td>Hypothesis 9</td>
</tr>
<tr>
<td>Objective 3</td>
<td>Research Question 3</td>
<td>Hypotheses 1, 2, 3, 4</td>
</tr>
<tr>
<td>Objective 4</td>
<td>Research Question 4</td>
<td>Hypotheses 6, 7, 8</td>
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Table 5.1 establishes the relationship among the objectives, research questions and the hypotheses formulated for the study. From the table it is noticed that hypothesis 5 assists the researcher to achieve objective 1 and answers research question 1; hypothesis 9 enables the achievement of objective 2 and provides answers to research question 2; hypotheses 1, 2, 3 and 4 help achieve objective 3 and answers research question 3; and hypotheses 6, 7 and 8 help achieve objective 4 and answers research question 4.

5.3 Philosophical Stance

Research philosophy in social science relates to the development of knowledge and the nature of that knowledge in the social world. It includes important assumptions about how one observes or views the social world. It involves thinking about epistemology and ontology, which have important distinctions that will affect the way a researcher thinks about the research process, and the methods applied (Bahari, 2010).

Research philosophy is very important in any kind of research whether the natural or social sciences (Bahari, 2010). Easterby-Smith et al. (2002) emphasise that, if one fails to think on philosophical issues in one’s research, it can seriously affect the quality of the research itself. Hence, prior to conducting research one has to think about the underlying philosophy, as philosophy is central to the notion of research design. Easterby-Smith et al. (2002) give three main reasons why one should understand philosophy in research: (1) to help clarify research designs; (2) to determine which design will work and which will not, and (3) to identify and even create designs that may be outside past experience.
Sobb and Perry (2005) also state that every research strategy, whether qualitative (intensive) or quantitative (extensive), has its own goals. The intellectual goal of research strategy can be considered as ‘what is to be achieved at the end of the research process’. The aim of each research strategy, according to various authors (Sobb and Perry, 2005; Bahari, 2010), differs according to the epistemological and ontological assumptions that underpin the research paradigms.

5.3.1 Ontological Philosophy

Blaikie (2000) describes the root definition of ontology as “the science or study of being” and develops this description for the social sciences to encompass “claims about what exists, what it looks like, what units make it up and how these units interact with each other”. It describes views (whether claims or assumptions) on the nature of reality, and specifically, whether this is an objective reality that really exists, or only a subjective reality, created in minds (Flowers, 2009). It is the theory of the nature of social entities (Bryman, 2004), about assumptions made about the nature of reality (Easterby-Smith et al., 2002), concerning the nature of social phenomena as entities that are to be admitted to a knowledge system (Saunders et al., 2007). Ontology is, thus, concerned about the nature of the world - what it consists of, what entities operate within it and how they interrelate to each other (Staiton-Rogers, 2006). In brief, it can be said that ontological assumptions concern the nature of phenomena to be investigated and different ontology make different assumptions (Bahari, 2010).

Lewis (2002) states that explicit reflection about ontological issues can help clarify the precise character of theoretical positions and arguments. This allows intuitions to be more fully articulated and developed; it helps to reveal internal inconsistencies in arguments; and it enables researchers to identify more accurately the differences between competing approaches (Grix, 2004). The categories of ontology are aptly put forward in the questions asked by Hatch and Cunliffe (2006) as to whether reality exists only through experience of it (subjectivism), or it does exist independently of those who live it (objectivism).
5.3.1.1 Constructivist/Subjectivism Ontology

Constructivism is an alternate ontological position that asserts that social phenomena, and their meanings are continually being accomplished by social actors. The core of ontological assumptions on subjectivist approaches to social science is that reality is a projection of human imagination (Morgan and Smirch, 1980). Easterby-Smith et al. (2002) state that “this new paradigm, which has been developed by philosophers during the last half century, largely in reaction to the application of positivism to the social sciences, stems from the view that ‘reality’ is not objective and exterior, but is socially constructed and given meaning by people”.

It implies that social phenomenon and categories are not only produced through social interaction but that they are in a constant state of revision (Bryman, 2001). It assumes the world that can be studied as a semiotic world of meanings, represented in signs and symbols, and language is central to this position (Bohlinger, 2009). It refers to beliefs that social phenomena are created from the perceptions and following actions on those social actors concerned with their existence (Saunders et al., 2007): as in Ghana’s mobile telecommunications industry that is going through the process of social interactions and is in continuous revisions and improvements. Constructivism is usually associated with qualitative methods. It is undertaken in order to understand the meaning of a phenomenon through participants and their subjective views based on meanings from social interaction with others and from personal histories. Research is shaped from the ‘bottom up’ from individual perspectives to broad patterns and then to theory (Creswell, 2003).

5.3.1.2 Objectivist Ontology

Objectivists have the belief that “social phenomena and their meanings have an existence that is independent of social actors” (Bryman, 2004). Positivist ontology states that the world as it is ‘out there’, operates in a systematic and lawful manner, with discrete and observable events, and reality is separate from human meaning-making (Bohlinger, 2009).

In brief, it can be said that the objectivists’ view about the social world is as concrete and real as the natural world. They believe that reality is to be found in concrete behaviour and stress the importance of researching the nature of the relationship among the elements in their constituents (Bahari, 2010). Quantitative research is related to the views in the objectivity of the social world and the idea of causation in social processes (Bahari, 2010).
5.3.2 Epistemology Philosophy

Epistemology considers views about the most appropriate ways of enquiring into the nature of the world (Easterby-Smith et al., 2008); ‘what is knowledge and what are the sources and limits of knowledge (Ericksson and Kovalainen, 2008)? It is the branch of philosophy that studies the nature of knowledge and what constitutes acceptable knowledge in the field of study (Saunders et al., 2007). Epistemological assumptions can be regarded as a question of what is (or should be) regarded as acceptable knowledge in a discipline. The central issue of epistemology in social science is the question whether the social world can, and should be studied according to the same principles and procedures as the natural sciences. The answer to that question points the way to the acceptability of the knowledge developed from the research process (Easterby-Smith et al., 2002). Therefore, epistemological assumption can be regarded as associated with the nature of knowledge and the methods through which that knowledge can be acquired. Epistemology, in short, claims what is assumed to exist can be known (Blaikie, 2000). The two well known contrasting epistemological assumptions are positivism and interpretivism/phenomenological (Bahari, 2010).

5.3.2.1 Positivism

Positivism is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond. It assumes that there are social facts with an objective reality apart from the beliefs of individuals (Bahari, 2010) because, as stated by Easterby-Smith et al. (2002), knowledge is only of significance if it is based on observations of this external reality. Positivist researchers, also known as ‘research’ resourcers (Saunders et al., 2007), believe that there is a clear-cut relationship between things and events in the outside world and people’s knowledge of them (Staiton-Rogers, 2006). Most positivists assume that there is no dichotomy between what is seen (appearance) and how things really are (reality) and that the world is real and is neither mediated by senses nor socially constructed (in contrast to realism and interpretivism) (Marsh and Furlong, 2002). They believe that “there are patterns and regularities, causes and consequences, in the social world just as there are in the natural world” (Denscombe, 2002) and therefore seek objectivity in research (Marsh and Furlong, 2002).

Thus, the main ideas of the positivists’ view can be regarded as the social world exists externally and that research is undertaken, as far as possible, in a value-free way (Bahari, 2010). Research methods, like large-scale surveys of population or representative samples,
formal questionnaires, and standardized interviews, are used to investigate a wide range of topics. The use of statistical analysis and measures of association and the development of measurement models are significant in this approach (Bahari, 2010). It is thus usually associated with quantitative methods. The research undertaken is based on determinism or cause-and-effect thinking; reductionism, by narrowing and focusing on select variables to interrelate detailed observations and measures of variables; and the testing of theories that are continually refined (Slife and Williams, 1995).

5.3.2.2 Interpretivism

Interpretivism as an epistemology states that “it is necessary for the researcher to understand differences between humans in our role as social actors” (Saunders et al., 2007). It can be seen as an epistemological position that is predicated upon the view that a strategy is required that respects the difference between people and the objects of the natural sciences, and therefore, requires the social scientists to grasp the subjective meaning of social action (Bryman, 2001). It is inductive or theory building (Flowers, 2009) and considers that there are multiple realities (Denzin and Lincoln, 2003). Since ‘all knowledge is relative to the knower’ interpretivists aim to work alongside others as they make sense of, draw meaning from, and create their realities in order to understand their points of view, and to interpret these experiences in the context of the researcher’s academic experience (Hatch and Cunliffe, 2006). Interpretivists researchers are considered as the ‘feeling’ researchers. This is due to the fact that they play a role as ‘social actors’ where they could interpret their everyday social roles in accordance with the meaning given to these roles and interpret the social roles of others in accordance with their own set of meanings (Saunders et al., 2007).

Interpretivism is also often associated with the view of phenomenology. Phenomenology is a philosophy that refers to the way in which humans make sense of the world around them and how, in particular, the philosopher should set out preconceptions in his or her grasp of that world (Saunders et al., 2007; Bryman, 2004).

The concept of phenomenology concerns how researchers view social phenomena as socially constructed, and is mainly related with creating meanings and obtaining insights into those phenomena (Bahari, 2010). The focus of the researcher is on understanding the meanings and interpretations of ‘social actors’ and to understand their world from their point of view, which is highly contextual and hence is not widely generalisable (Saunders et al., 2007).
Understanding what people are thinking and feeling, as well as how they communicate verbally and non-verbally, is considered important (Easterby-Smith et al., 2008); and given the subjective nature of this paradigm, and the emphasis on language, it is associated with qualitative approaches to data gathering (Eriksson and Kovalainen, 2008).

5.3.2.3 Post-Positivism

Post-positivism, sometimes referred to as realism, can be understood as a research paradigm placed between both positivism and interpretivism. Born from a frustration that positivism was over-deterministic (in that there is little room for choice due to the causal nature of universal laws) and that constructionism was so totally relativist (and hence highly contextual), realism takes aspects from both positivist and interpretivist positions. It holds that real structures exist independent of human consciousness, but that knowledge is socially created, and that knowledge of reality is a result of social conditioning (Saunders et al., 2007).

Whilst realism is concerned with what kinds of things there are, and how these things behave, it accepts that reality may exist in spite of science or observation, and so there is validity in recognising realities that are simply claimed to exist or act, whether proven or not. In common with interpretivists’ positions, realism recognises that natural and social sciences are different, and that social reality is pre-interpreted. However, realists, in line with the positivist position, also hold that science must be empirically-based, rational and objective and so it argues that social objects may be studied ‘scientifically’ as social objects, not simply through language and discourse (Blaikie, 1993 cited by Flowers, 2009).

From an organisational perspective, Hatch and Cunliffe (2006) describe the realist researcher as enquiring into the mechanisms and structures that underlie institutional forms and practices; how these emerge over time; how they might empower and constrain social actors; and how such forms may be critiqued and changed. A wide range of terms, as indicated by Teddlie and Tashakkori (2009), have been used for various versions of realism, including "critical" realism (Bhaskar, 1989; Archer, et al., 1998), "experiential" realism (Lakoff, 1987), "subtle" realism (Hammersley, 1992), “emergent” realism (Henry, Julnes and Mark, 1998, Mark, Henry and Julnes, 2000), "natural" realism (Putnam, 1999), “innocent” realism (Haack, 1998, 2003), and “agential” realism (Barad, 2007). However, the term “critical
realism” as indicated by both Sobh and Perry (2005) and Teddlie and Tashakkori, (2009) has, broadly been used to include all of these versions of realism.

Critical realists take the view that researching from different angles and at multiple levels will all contribute to understanding since reality can exist at multiple levels (Chia, 2002). The realism paradigm is usually well suited to case studies and convergent interview methodologies as it explores the reality of the situation or environment. The nature of this type of research is exploratory and theory building (Grix, 2004).

5.3.3 Choice of Research Philosophy

The study employs realism as its research philosophy incorporating both ontological and epistemological philosophies for purposes of combining quantitative and qualitative research approaches. Realism provides a philosophical stance that is compatible with the essential methodological characteristics of both qualitative and quantitative research, and can facilitate communication, cooperation and a more effective collaboration between the two (Mark, Henley and Julnes, 2000; Greene, 2002, Maxwell and Mittapalli, 2010), and, even more importantly, its adoption constitutes a productive stance for mixed method research (Maxwell and Mittapalli, 2010).

Specifically, the study adopts the “critical realism” approach as used by various authors (Sobh and Perry 2005; Teddlie and Tashakkori, 2009) in a broad sense to include all of the various versions of realism. Realism is adopted because it enables the retention of an ontological realism (there is a real world that exists independently of perceptions, theories, and constructions) while accepting a form of epistemological constructivism and relativism (understanding of this world is inevitably a construction from our own perspectives and standpoint) (Sobh and Perry, 2005). It provides the justification for the development of a preliminary conceptual framework about the underlying structures and mechanisms from the literature and/or people with experience of the phenomena of market orientation and performance relationship before entering the field to collect data as advised by Miles and Huberman (1994). In taking this position, critical realism retains an ontological realism while accepting a form of epistemological relativism or constructivism.
The overarching reason for the adoption of realism stems from the arguments adduced by various authors (Maxwell and Mittapalli, 2010; Riege, 2003) to the effect that, not only is realism a productive stance for mixed method research because it is compatible with both qualitative and quantitative research and treats the two perspectives as equally valid and useful, it also has important implications for both approaches, ones that push both qualitative and quantitative researchers to examine more closely some issues that may typically be dismissed or ignored. Realism, therefore, did not only help to integrate the two approaches into a more coherent combination, and promote closer and more equal cooperation between qualitative and quantitative researchers, but also served to increase the usefulness of both approaches adopted for this study.

5.4 Research Methods

Researchers often face difficulties in choosing between two types of research strategies, namely intensive and extensive research. The terms ‘intensive’ and ‘extensive’ research strategies were first introduced by Harre (1979) and are associated with the terms ‘qualitative’ and ‘quantitative’ research: intensive research is qualitative and extensive research is quantitative (Sayer, 1992). Qualitative and quantitative research strategies are distinct in several aspects (Bahari, 2010) since every research strategy, whether qualitative (intensive) or quantitative (extensive), has its own goals. The intellectual goal of a research strategy can be considered as ‘what is to be achieved at the end of the research process’. The aim of each research strategy differs according to the epistemological and ontological assumptions that underpin the research paradigms (Sobh and Perry, 2005).

Both the quantitative and qualitative paradigms, and the methods associated with them, have as their goal the making of inferences: that is, ‘using known facts to learn something about unknown facts (King et al., 1994 cited by Bahari, 2010).

5.4.1 Quantitative Methods

Cresswell (2003) defines quantitative research as one in which the researcher primarily uses post positivist claims for developing knowledge, for example, cause and effect thinking; reduction to specific variables, and hypotheses and questions; use of measurements and observations; and the test of the theories. Strategies usually used in this research design are experiments and surveys, and predetermined instruments in data collection that produce
statistical data. Bryman (2004) asserts that quantitative research usually emphasizes quantification in the collection and analysis of data. Pejoratively known as “number crunching”, quantitative research uses techniques that apply more to numerical data. Researchers develop variables or concepts which can be measured, and convert them into specific data-collection techniques. These techniques produce precise numerical information, which can be understood as the empirical representation of the (abstract) concepts (Neuman, 2000). Quantitative techniques include identifying general patterns and relationships among variables, testing hypotheses and theories, and making predictions based on these results (Ragin, 1994 cited by Bryman, 2004).

The most common types of methods associated with quantitative research are social surveys, analysis of previously collected data or official statistics and “structured” observations (Silverman, 2000). Quantitative researchers may seek correlations between variables, but they are often ‘reluctant to move from statements of correlation to causal statements’ as the complexity of social life makes it difficult to be absolutely certain if a particular variable is the sole cause of something.

Broadly speaking, quantitative research, according to Grix (2004), is characterized by three basic phases:

- Finding variables for concepts,
- Operationalising them in the study, and
- Measuring them.

They are generally interested in comparison and causality both of which cause variance or change in the dependent variables and they generally use a large number of cases (Grix, 2004).

5.4.2 Qualitative Methods

In conducting a qualitative research strategy, researchers are accepting the idea of multiple realities instead of a single reality (Cresswell, 2003). Many see qualitative research as almost the complete opposite of quantitative research. It usually involves an in-depth investigation of knowledge through, for example, participant observation, employing the interviewing technique, archival or other documentary analyses, narratives, phenomenologies, grounded theory studies, case studies, or ethnographic study (Ragin, 1994; Bryman, 2004). These
methods do not rely on, but can involve, numerical measurements and, as stated by Bryman (2004), they normally emphasize words rather than quantification in the collection and analysis of data. The main aim of qualitative research is related to understanding how people invent structures to help them make sense of what is going on around them (Easterby-Smith et al., 2002). It is one in which the researcher usually makes knowledge claims based on constructivist’s perspectives (Cresswell, 2003). By means of the epistemology viewed by qualitative researcher, it means that the researcher makes an effort to get as close as possible to the participants being studied. In terms of ontological assumptions, the intensive/qualitative researcher carries out a study with the aim of reporting multiple realities (Creswell, 2003).

5.4.3 Mixed Methods

Mixed-methods research is an alternative research strategy, which combines both qualitative and quantitative methods. The goal of mixed methods is not to take the place of the former approach but attempts to maximize the strengths and minimize the weaknesses of qualitative and quantitative research strategies (Johnson and Onwuegbuzie, 2004). Mixed methods studies attempt to bring together methods from different paradigms. This kind of integration of qualitative with quantitative methods, also sometimes referred to as multi-strategy research, is conceptually more complex (PREST, 2004).

This approach may provide a basis for triangulation, but more often, it becomes the source of different ways of conceptualizing the problem. It might set out to look at the same things from different points of view, but it often turns out that the viewpoint implies such different ways of seeing that the lines of sight do not converge. However, as stated by Bahari (2010), even though it would be suggested that the mixed methods is more practical and applicable, it is very subjective to say which method is the best method in social science. This is because there is no single approach that has a total view of reality of the social world. For Bahari (2010), mixed methods strategy should not be considered as a panacea for every research problem, since there is no one research strategy that is better than the alternatives. The most important thing is that the adopted techniques are more useful and appropriate in one or another context. In some, an intensive/qualitative research strategy is more appropriate; and some may employ extensive/quantitative research, or alternatively mixed method is more suitable in other situations (Bahari, 2010).
5.4.4 Research Method Chosen

This study adopts the mixed methods approach of both quantitative and qualitative methods not only because they can be mixed, but also because, in many cases, they ought to be (Grix, 2004). As stated by King et al. (1994), the division between qualitative and quantitative is to some extent artificial, and the best research usually employs both methods hence heeding the advice of Grix (2004) for researchers not to become entrenched in one camp or the other.

The adoption of the mixed methods approach is also premised on the assertion by Teddlie and Tashakkori (2009) that pragmatism can be regarded as a foundation of mixed methods research. They suggest that pragmatism rejects the incompatibility thesis and presents it as a very practical and applied research philosophy. Moreover, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis (Cresswell, 2003). Thus, the mixed methods can be seen as more practical and applicable in conducting a study in social sciences rather than employing a single approach.

Furthermore, as indicated by Bryman (2006), the so-called “paradigm wars” have been replaced by the era of “paradigm peace”. He suggests that the view that qualitative and quantitative research strategies can no longer be considered as incompatible is significant for three reasons. “Firstly, it removes any lingering doubts concerning whether it is intellectually legitimate to integrate the two approaches. Secondly, the compatibility view marginalizes the epistemological issues and concerns that were at the heart of the paradigm wars, though that is not to suggest that philosophical issues disappear completely. Thirdly, the view that qualitative and quantitative research can be combined tended to be associated with an uncoupling of research methods from philosophical positions.”

Finally, the adoption of the mixed methods approach is in recognition of the statement by Malhotra (2007) that it is a sound principle of research to view qualitative and quantitative research as complementary, rather than in competition with each other. This study, thus, adopts a combination approach of qualitative and quantitative methods as recommended by Reichardt and Cook (1979) who state that researchers should not be restricted to either quantitative or qualitative paradigms, rather, they should be flexible using both methodologies in seeking answers to the same research questions.
5.5 Data Sources

The study makes use of both secondary and mixed primary approaches.

5.5.1 Secondary Data

Secondary data is data that has already been collected for purposes other than the problem at hand. These data can be located quickly and inexpensively. They are collected rapidly and easily, at a relatively low cost, and in a short time (Malhotra, 2007). Even though they do not provide firsthand or eyewitness accounts they may provide expert compilations, analysis and interpretations of primary information including scholarly encyclopaedias and scholarly books (Charles and Mertler, 2002). Malhotra (2007) states that an examination of available secondary data is a pre-requisite to the collection of primary data because analysis of secondary data can provide valuable insights and lay the foundation for conducting primary data analysis. For the purposes of this study, secondary data is obtained from the National Communications Authority, the regulatory body of mobile telecommunications operations in Ghana; Ghana Chamber of Telecommunications, which is the association for the various mobile telecommunications operators; Ministry of Communications, the sector ministry that has oversight responsibility over the mobile telecommunications companies; Ghana Chamber of Commerce; and Ghana Statistical Service.

This was complemented by online materials obtained from the websites of bodies such as International Telecommunications Union, World Bank and ABI Research. These secondary data were very useful for the write-up on the contextual background in Chapter Two of the study. Online scholarly material from Ebscohost, Emerald Insight, Proquest and Google Scholar were also accessed for the review of relevant literature, development of the conceptual framework and formulation of hypotheses in Chapters Three and Four of the study.

5.5.2 Primary Data

Primary data are collected to address a specific objective. A variety of methods, ranging from qualitative research to surveys and experiments, may be employed (Aaker et al., 2010). Obtaining primary data can be expensive and time consuming (Malhotra, 2007). For this study, survey and in-depth interviews were deployed respectively for quantitative and qualitative primary data collection.
5.6 Qualitative Approach

The sampling frame chosen for qualitative method was senior managers from the six mobile telecommunications companies operating in Ghana at their head offices in Accra. All the mobile telecommunications companies have their head offices located in Accra, the capital of Ghana, from where these senior managers carry out their responsibilities. It was not only expedient but also prudent for Accra to constitute the sample frame.

5.6.1 Qualitative Sample Frame and Size

Ten senior managers (two each from five mobile telecommunications companies) were selected for in-depth interviews. The sixth mobile telecommunications company declined to participate in the in-depth interview. The officers chosen have different titles and designations, such as Manager of Customer Loyalty and Retention, Brands Manager, Business Solutions and Account Manager, Revenue and Market Planning Manager, Director Sales and Marketing, High Value Retail Manager, Commercial Director, Marketing Manager, and Marketing Director even though they are all performing marketing functions. The sample size chosen was based on the fact that samples for qualitative studies are generally much smaller than quantitative studies. Mason (2010) cites Ritchie et al. (2010) and provides reasons for this by stating that there is a point of diminishing return to a qualitative sample as the study goes on; more data does not necessarily lead to more information.

According to Mason (2010), one occurrence of a piece of data or a code is all that is necessary to ensure that it becomes part of the analysis framework. Frequencies are rarely important in qualitative research, as one occurrence of the data is potentially as useful as many in understanding the process behind the topic (Ritchie et al., 2010). This is because, as specified by Crouch and McKenzie (2006), qualitative research is concerned with meaning and not making generalised hypothesis; and even more important is Mason’s (2010) statement that, because qualitative research is very labour intensive, analysing a large sample can be time consuming and often simply impractical.

5.6.2 Qualitative Sampling Method

To elicit the exploratory qualitative data, a non-probability judgemental sampling method was employed. The judgemental sampling method is a form of convenience sampling method in which the population elements are selected based on the judgement of the researcher, who in exercising judgement or expertise, chooses the elements to be included in the sample
because they are representative of the population of interest or are otherwise appropriate (Malhotra, 2007). These senior managers chosen are considered appropriate because they are decision makers in the organisation and have relevant insight into the market orientation performance relationship (Aaker et al., 2010). Thus, the ten respondents interviewed were determined by their insight, judgement and experience (Chattananon, 2003).

5.6.3 Qualitative Data Collection - In-depth Interviews

Qualitative data collection methods can have a direct approach or indirect approach, based on whether the true purpose of the project is known to the respondents (Malhotra, 2007). A direct approach is not disguised. The purpose of the project is disclosed to the respondents or is otherwise obvious to them from the questions asked. Focus group and in-depth interviews are the major direct techniques. In contrast, research that takes an indirect approach disguises the true purpose of the project and the most commonly used is the projective technique (Malhotra, 2007). Collectively, these methods are less structured and more intensive than standardized questionnaire-based interviews. There is a longer, more flexible relationship with the respondent, so the resulting data have more depth and greater richness of context, which also means a greater potential for new insights and perspectives (Aaker et al., 2010).

A direct approach by way of in-depth interview was adopted for collection of qualitative data. This method helped to deeply explore the respondent’s point of view, feelings and perspectives to yield information pertaining to the research topic (Zikmund, 2003). It also provided the opportunity to diagnose the situation; screen alternative variables and themes; discover new ideas; and ask knowledgeable individuals about the particular research problem (Rubin and Rubin, 2004).

5.6.4 Conducting Interviews

The researcher sent letters to the mobile telecommunications firms requesting that particular individuals participate in the study (attached as appendix A). The letters were followed up with telephone calls to schedule the face-to-face interviews. Time constraints, availability of officers, convenience and cost (Zikmund, 2003) were the major considerations in interviewing these busy executives, technical experts, and thought leaders in their offices located in Accra, the capital of Ghana.
The in-depth interviews followed a semi-structured approach where the researcher had an interview guide of open-ended questions on some specific topics necessary for the research study, with the respondents given the flexibility regarding how they responded to the questions (Interview guide attached as Appendix B). Questions asked were influenced by the research objectives, hypotheses, research questions and literature reviewed. After eliciting their support, in-depth interviews were carried out in the offices of the respondents as recommended by Kinnera and Taylor (1996) who intimate that as busy officials they were more comfortable because of their tight schedules. The interview commenced with some general questions to establish the meaning of market orientation to the respondents; the internal and external antecedents of market orientation; the consequences of market orientation; and the relevance of marketing orientation in Ghana’s mobile telecommunications industry. These questions are adopted from Jaworski and Kohli’s (1993) measurement scales because of their wide acceptability in the market orientation literature (Zebal, 2003; Zebal and Goodwin, 2011; Hafer and Gresham, 2008; Akomea and Yeboah, 2011, Dwairi et al., 2012) and appropriately modified to suit this study.

The next set of questions explored whether there is a focus on customers in the mobile telecommunications industry and, if so, how it is exhibited. It went further to find out whether information and intelligence is generated and how it is, if it is done. Questions were then asked as to how information generated is disseminated if it is done at all, and finally whether information disseminated is acted upon. Each of the sets of questions had several questions, which followed from the answer given by the respondents.

The three basic parts of the interview guide proposed by a Guion et al. (2006) were followed. The first part, which is the facesheet, was used to record the time, date, and place of the interview, special conditions or circumstances that may affect the interview, and demographic information about the respondent being interviewed; the second part is interview questions, which were placed on the left side of the page, along with a blank space on the right side of the page for written observations; and the third part is the post-interview comment sheet, which was a place to write notes after the interview. These notes included feelings, interpretations, and other comments that arose during the interview. The interview process, with the permission of the interviewees, was tape recorded. Each interview, with the aid of an interview guide, lasted on average not more than an hour as prescribed by Malhotra (2007), and the interviews with the ten respondents were undertaken within a week.
5.6.5 Qualitative Data Analysis

Various modes of qualitative data analysis namely, grounded theory, hermeneutic analysis, content analysis, phenomenological analysis, and thematic analysis, each of which has its advantages and disadvantages, were considered. They all bear some similarities in terms of their procedure for coding themes. The thematic analysis method was employed because it provides the flexibility for approaching research patterns in two ways - inductive and deductive (Frith and Gleson, 2004; Hayes, 2000; Halldorson, 2009). As indicated by Ibrahim (2012), by using thematic analysis, it was possible to link the various concepts and opinions of participants and compare them with the data that had been gathered in different situations at different times from other or the same participants during the project.

Furthermore, as indicated by Marks and Yardley (2004), thematic analysis gives an opportunity to understand the potential of any issue widely, hence its adoption. Thematic analysis ensured the analyses of classifications and presented themes (patterns) that related to the data. It also illustrated the data in great detail and dealt with diverse subjects via interpretations. As intimated by Ibrahim (2012) thematic analysis provided a systematic element to data analysis. It allowed the researcher to associate an analysis of the frequency of a theme with one of the whole content. This conferred accuracy, intricacy, and enhanced the research’s whole meaning. More importantly, thematic analysis was utilised because it is appropriate for data interpretation, deductive and inductive approaches, analysis of two different phased data, coding and categorising (Ibrahim, 2012).

The thematic analysis of the qualitative data was guided by the principles set out by Denscombe (2010) and cited in Ibrahim (2012) which, according to him, when followed will result in more efficient outcomes. The first principle is to compact extensive and diverse raw data into a succinct structure; the second principle is to make the relationship between the research objectives and the summary clear; and finally draw conclusions by developing a model and/or improving the conceptual basis of the research. As prescribed by Rubin and Rubin (2004), data generated from in-depth interviews were transcribed and then refined and elaborated concepts, themes and events noted. Subsequently, the interviews were coded to retrieve what the interviewees said. The concepts and themes were also sorted and compared across the interviews to formulate a description of the setting in order to answer the research question in ways that allowed the researcher to draw broader theoretical conclusions. A matrix was used to store and sort the data manually by assigning the responses for each
respondent under each question. The matrix aided comparison of answers from one respondent to another because the responses were easy to visualise. Ultimately, the data were combined to assess how the concept was seen overall and if there were any similarities and differences in the way the concepts were viewed and noted.

5.7 Quantitative Approach

The criteria for the sampling method for quantitative data were based on drawing the entire sample from one representative city, namely, Accra which hosts the head offices of all the mobile telecommunications operators in Ghana, and is the capital of both the Greater Accra Region and the country Ghana. The 2010 census established that Greater Accra has the second highest population after the Ashanti Region in Ghana with figures of 4,010,054 representing 16.1% of the country’s population. Furthermore, even though it is the smallest region in size with 3,245sq kilometres, it has the highest population density of 1236 per sq kilometer and had the highest population growth rate of 38% in 2010 over 2000 (Ghana Statistical Service, 2012).

Even more important is the fact that by 2014, Accra had the highest number of mobile subscriptions with a figure of 9,108,231 representing 30% of mobile ownership (NCA, 2015) confirming the often held view that Accra has the highest multiple mobile SIM subscription in the country. Besides, Accra being the political and administrative capital of Ghana, and also the most industrialized, developed and urbanized city in the country, it also has a strong presence of mobile telecommunications operators and subscribers. These factors make the region very cosmopolitan in nature and provide the diverse respondents required for the study. Accra, therefore, provided the appropriate sample frame and a true representation of the entire population of mobile telecommunications operators and subscribers because of the unique characteristics of the region.

5.7.1 Quantitative Sample Size

After establishing the population, the next requirement, as specified by Zikmund (2000), was to determine the sample size. As indicated by Marshall (1996), the choice of a sample is an important step in any research project since it is rarely practical, efficient or ethical to study the whole population. Sampling, thus, became necessary because of budgetary and time constraints, the large and dispersed population size, and because of the large variance of characteristic interest (Malhotra, 2007). With mobile subscription numbers of 30,360,771 as
at December, 2014 (NCA, 2015) spread all over the country, as well as operators’ staff in different offices across the country, it was practically impossible to conduct a census; hence the sampling.

5.7.1.1 Sample Size for Subscribers
From the 2013 market share figures shown in Table 5.2, MTN has 46.13% of market share; Vodafone has 21.58% market share; Tigo has 14.35% market share; Airtel has 12.11% market share; Glo Mobile has 5.34% market share; and Expresso 0.48% market share (NCA, 2014). Based on these figures, and to cater for the possibility of errors arising from non-response, a quota sampling method augmented by a convenience sampling method was employed to determine the sample size as shown in Table 5.2: 140 MTN subscribers, 70 Vodafone subscribers, 46 Tigo subscribers, 40 Airtel subscribers, 20 Glo Mobile subscribers, and 5 Expresso subscribers.

Table 5.2: Sample Size for Subscriber Questionnaire Administration

<table>
<thead>
<tr>
<th>No</th>
<th>Operator</th>
<th>Market Share %</th>
<th>No of Subscriber Questionnaires Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MTN</td>
<td>46.13</td>
<td>140</td>
</tr>
<tr>
<td>2</td>
<td>Vodafone</td>
<td>21.58</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>Tigo</td>
<td>14.35</td>
<td>46</td>
</tr>
<tr>
<td>4</td>
<td>Airtel</td>
<td>12.11</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>Glo Mobile</td>
<td>5.34</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Expresso</td>
<td>0.48</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>321</strong></td>
</tr>
</tbody>
</table>

Source: NCA (2014) and researcher’s compilation

5.7.1.2 Sample Size for Staff
Table 5.3 shows that three hundred and thirty (330) staff of the six mobile telecommunications firms constituted the sample size for quantitative data collection. Each mobile telecommunications firm had fifty-five staff selected. The even distribution of staff sample size, stems from anecdotal evidence which suggests that, in spite of the variations in their subscriber base, at their head offices in Accra where respondents were selected from, there is no significant difference in their staff numbers.
Table 5.3 Sample Size for Staff Questionnaire Administration

<table>
<thead>
<tr>
<th>No</th>
<th>Operator</th>
<th>No of Staff Questionnaires Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MTN</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>Vodafone</td>
<td>55</td>
</tr>
<tr>
<td>3</td>
<td>Tigo</td>
<td>55</td>
</tr>
<tr>
<td>4</td>
<td>Airtel</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>Glo Mobile</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>Expresso</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>330</strong></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation

5.7.2 Sampling Method

5.7.2.1 Sampling Method for Subscribers
A quota sampling method augmented by the convenience sampling method was used to select subscriber respondents with the control category for the quota being the market share of each mobile telecom operator. The quota method was used to ensure that the composition of the sample is the same as the composition of the population with regard to the characteristics of interest (Malhotra, 2007). Subsequently, the convenience method was used to select subscriber respondents to meet the quota figures. This, as stated by Malhotra (2007), sought to obtain a sample of convenient elements. Subscribers were selected because they happened to be at the right place, at the right time, specifically on the campuses of Central University College and Accra Shopping Mall, the largest shopping mall in Ghana. Other considerations that went into the adoption of the convenience method is that it is less expensive, and sampling units were easily accessible, easy to measure and cooperative (Malhotra, 2007).

5.7.2.2 Sampling Method for Staff
A simple random sampling technique was employed for the selection of staff to participate in the survey research. This convenience sampling method ensured that each element in the population has a known and equal probability of selection but also that every element is selected independently of every other element and the sample can be projected to the targeted population (Malhotra, 2007).
5.7.3 Quantitative Data Collection - Questionnaire

To develop an instrument for empirical research, existing methods of marketing orientation measurement were analysed (Narver and Salter, 1990; Kohli and Jaworski, 1990; Ruekert, 1992; Deng and Dart, 1994; and Deshpande et al., 1993). A great many of the propositions were taken from the Jaworski and Kohli (1993) construct, which has been widely used by various studies (Advani and Borins, 2001; Zebal 2003). A great number of them, developed for measuring marketing orientation in the manufacturing sector and possessing various advantages and disadvantages, were adopted for Ghana’s mobile telecommunications industry.

The design of the quantitative data collection instrument was influenced by literature reviewed in Chapters Three and Four, as well as the hypotheses formulated and conceptual framework proposed for the study in chapter four. Nachmias and Nachmias (1981) grouped quantitative data collection methods into three categories: observational methods, survey and unobtrusive measures. After comparing these three methods, it was decided to use the survey method for quantitative data collection because of its superiority and that it is overwhelmingly the choice of researchers for collecting primary data. Two types of questionnaires presented in Appendices C and D, were designed to collect quantitative data from operators’ staff and subscribers.

As recommended by Zebal (2003), a 5-point Likert scale rating type of 1 (strongly disagree) to 5 (strongly agree) was used in this study for all the scale items. Zebal (2003) cites Zikmund (2000) to the effect that scales are easy to prepare and interpret, and simple for a respondent to answer. Furthermore, Zikmund (2000) cites Churchill (1983) to the effect that an interval scale is more powerful than a nominal scale, as it allows a researcher to make stronger comparisons and conclusions.

5.7.3.1 Staff Questionnaire

For staff, the questionnaire measured the market orientation of the mobile telecommunications industry in Ghana, the internal and external antecedents, and the business and non-business consequences.
This research project addressed 21 constructs and 109 questions for the staff. Existing scales that are available in the literature were used for most of the variables considering their wide recognition and acceptability in the market orientation literature. Existing scales were used in this study for all the four components of market orientation (customer emphasis, intelligence generation, intelligence dissemination, and intelligence responsiveness).

The other existing scales that were used in this study include senior management characteristics made up of top management emphasis, formal marketing education, management training and risk aversion; organisational characteristics of centralisation, formalisation, and market based reward systems; interdepartmental dynamics made up of interdepartmental conflict and interdepartmental connectedness; external factors of competition, market turbulence and technological turbulence; financial performance of business, namely profitability, market share, growth in market share, subscriber base, growth in subscriber base, and ARPU; and non-financial performance of employees’ organisational commitment, esprit de corps, customer satisfaction and customer retention.

The 109-item scale was used for the assessment of the operators’ side of the relationship dyad. Market orientation in Ghana’s mobile telecommunications industry was measured using Zebal and Goodwin’s (2011) 17-item developing country culture specific scale which they referred to as the Developing Country Market Orientation (DECMOR), initially adopted from Gray et al. (1998) and Kohli et al.’s (1993) scales. This was augmented with eight questions from Jaworski and Kohli’s (1993) scale, making a total of 25 questions on a Likert-type scale ranging from 1 strongly disagree to 5 strongly agree. In the absence of a measurement scale for market orientation in mobile telecommunications in Ghana, Zebal and Goodwin’s (2011) developing economy scales and Jaworski and Kohli’s (1993) widely used scales were considered appropriate for this purpose.

Customer emphasis was measured by responses to four questions; information generation was measured by six questions; intelligence dissemination was measured by five questions; and intelligence responsiveness was measured by nine questions. The internal and external antecedents of market orientation were measured by a 58-item Likert-type measurement scale. This was made up of four questions for top management emphasis; five questions for risk aversion; four questions for management training; four questions for formal marketing education; five questions for centralisation; four questions for formalization; four questions
for market based reward systems; six questions for interdepartmental conflict; five questions for interdepartmental connectedness; seven questions for competition; five questions for technology; and five questions for market turbulence.

Non-financial consequences of market orientation were measured by a 19 item measurement scale. Five customer satisfaction questions and four customer retention questions adopted from Zebal (2003) were used to measure customer consequences of market orientation. Five organisational commitment questions and five esprit de corps questions adopted from Jaworski and Kohli (1993) were used to measure employee consequences of market orientation.

Financial performance was measured by a five-item scale, which was adopted from Kohli and Jaworski’s (1993) scale. No concrete figures are involved in the evaluation. In this research, performance was measured by profitability; number of subscribers; growth in the subscriber base; market share; growth in market share; and average revenue per user (ARPU). The ARPU was used because of its common usage in telecommunications markets, and its availability as secondary data in the form of a firm’s ARPU, market average ARPU, which renders it more appropriate for comparison and research (Ashour, 2010).

The use of Jaworski and Kohli (1993) in this study was because of its wide acceptance and use in market orientation literature (Bhuian, 1998; Avlontis and Gounaris, 1999; Farrell, 2000; Harris, 2000; Puledran et al., 2000; Cevera et al., 2001). It is worth mentioning that slight changes were made to the terminologies used by previous authors (Jaworski and Kohli 1993; Zebal 2003) and this is in line with Harris’ (2001) view that market orientation constructs should be adapted for different contexts. Therefore terminologies such as telecom operators, subscribers, market share, and average revenue per user (ARPU) among others have been used.

5.7.3.2 Subscriber Questionnaire

The market orientation dimensions of the staff questionnaire were subsequently modified in order to make it applicable to the subscribers’ situation. The subscriber respondents assessed the operators’ market orientation using the modification of the 25-item scale of the operators. For subscribers, the questionnaire measured their assessment of the market orientation practices of mobile telecommunications operators, consisting of customer emphasis,
intelligence generation, intelligence dissemination and responsiveness. This was made up of 4 constructs and 25 questions.

5.7.4 Administration of Questionnaires

Survey questionnaires may be administered in four major modes: telephone interviews, personal interviews, mail interviews, and electronic interviews - each of which possesses its advantages and disadvantages (Malhotra, 2007; Aaker et al., 2010; Zikmund, 2000). It is not easy selecting a particular method simply by comparing the advantages and disadvantages. This is because the strong point of one tends to be the weakness of the other. The study’s aims, and data required to achieve these aims, influenced the choice (Peterson, 1982; Nachmias and Nachmias, 1981; Tull and Hawkins, 1990; Aaker et al., 2010).

Telephone interviews were deemed inappropriate because of the use of a lengthy questionnaire. This problem was further compounded by Huang’s (1998) statement that telephone interviews are not possible in developing countries because of the unavailability of telephones and inefficiency of the telephone system. This is evident in Ghana where, in spite of the proliferation of mobile phones, service delivery is unreliable, with its associated problems of call drops, call congestion, and call setup time. Also penetration of landline phones is low, which renders the administration of questionnaires by telephones unreliable.

Malhotra and Peterson (2001) also note that the mail interview method is not popular in developing countries, as the postal system is not well developed. Anecdotal evidence indicates that mail interviews would be impossible in Ghana where there is a tendency to discard such mail. Unlike some developed environments where mail is delivered at homes and offices, in Ghana, mail has to be picked up from the letter boxes at the post offices, which makes this approach practically impossible because of the time frame attached to the collection of data. Furthermore, surveys carried out in Ghana to date have only involved the use of face-to-face interviews implying that it was possibly more difficult to achieve suitable response rates using telephone and mail methods (Akomea, 2001; Kuada and Buatsi, 2005; Hinson et al., 2008). Thus, the personal approach to the survey process was adopted because, as anecdotal evidence suggests, this has the potential of yielding the highest quantity and quality of data in Ghana compared to the other two modes.
5.7.4.1 Administration of Staff Questionnaires

The administration of questionnaires to the staff of mobile telecommunications operators was undertaken personally because, as indicated by Hinson and Sorensen (2006), Ghanaians are more comfortable filling in questionnaires that are personally delivered and thoroughly explained to them by the interviewer. Questionnaires were administered to operators’ staff in their offices in Accra where their company head offices are located after writing to the organisation and obtaining permission to proceed. The questionnaire was self-completed by the respondents, with the researcher staying around to provide explanation when needed. This study required a reasonably long interview as many variables needed to be investigated, and considering the fact that the researcher wanted to achieve maximum participation dealing with busy officials, the administration of the questionnaire in their offices was considered appropriate. The administration of questionnaires to staff took approximately two weeks to complete. Of the 330 questionnaires administered, 275 (representing 83.3%) were usable, with the breakdown as follows: MTN 55; Vodafone 46; Tigo 48; Airtel 48; Glo mobile 31; and Expresso 47. The seemingly high success rate of responses from MTN is attributable to the personal interest shown by the company in the research and the assistance given by the research officer of the company.

5.7.4.2 Administration of Subscribers’ Questionnaire

Subscriber questionnaires were also personally administered. Some of the subscriber questionnaires were administered to students on the campuses of Central University College where the researcher works as a lecturer. With a student population of over 10,000, the University runs morning, evening and weekend courses allowing the researcher to capture diverse student mobile subscribers of different ages, status and gender for questionnaire administration. This was augmented with the administration of additional questionnaires at the Accra Shopping Mall, the biggest mall in Ghana. The mall boasts of an average of 535,000 in foot traffic every month with about 17,500 people visiting the mall on a typical day while 26,000 people troop to the place on weekends and holidays (Bruks, 2013). Furthermore, all the mobile telecommunications operators have a presence in the mall where existing subscribers can go to have their issues resolved or new subscribers can sign on. Patronage of the mall is not only huge but also diverse and provided an appropriate opportunity to administer questionnaires to interested subscribers. The researcher, with six students from Central University College who were trained to provide the necessary assistance, positioned themselves at the shopping mall, and gave the questionnaires out at the
various offices of the mobile operators when subscribers came in to transact business. This occurred after obtaining the requisite permission from the operators. The questionnaires were self-completed by the respondents with assistance being given where necessary. Despite the disinterest exhibited by some subscribers during the questionnaire administration, this was successfully carried out within three weeks. In all 321 questionnaires were administered on subscribers but 302 (representing 94.4%) were usable.

5.7.5 Quantitative Data Analysis
Confirmatory factor analysis, structural equation modeling, correlation matrix and T-tests were utilised in the analysis of quantitative data and for testing of hypotheses. The combination of these analytical instruments is considered convenient because it is believed that the strengths of one of these analytical tools would take care of the weaknesses in the other. It was also expected that the integration of these analytical instruments would help make data presentation self-explanatory.

The Statistical Package for Social Science (SPSS), a comprehensive system for analyzing data, was used. It is an integrated family of products that addresses the entire analytical process, from planning to data collection to analysis, reporting and deployment. Its choice is based on its ability to perform highly complex data manipulation and analysis with simple instructions and can be used to generate tabulated reports, charts, and plots of distributions and trends, descriptive statistics, and complex statistical analysis (Turnbull and King-Heke, 2014). Because it is a Windows programme, as indicated by Turnbull and King-Hele (2014), it was possible to view and edit the data by pointing and clicking the movable windows, dropdown menus and dialogue boxes.

5.7.5.1 Structural Equation Model
The multivariate, structural equation modeling (SEM) technique using the linear structural relationships (LISREL 8.5) programme was employed to identify the antecedents having significant association with market orientation in Ghana’s mobile telecommunications industry, and to determine the level of market orientation components that significantly determine the financial and non-financial performance of telecommunications organisations. Structural equation modeling (SEM), sometimes referred to as covariance structure analysis, is a versatile statistical modeling technique that has been used to describe a large number of statistical models used to evaluate the validity of substantive theories with empirical data and
represents an extension of general linear modeling (GLM) procedures, such as ANOVA, and multiple regression analysis (Lei and Wu, 2007). Hoyle (1995) describes it as a comprehensive statistical approach to testing hypotheses about relationships among observed and latent variables that, according to Lei and Wu (2007) involves the valuation of two models: a measurement model and a path model.

The preference for this tool of analysis is premised on Liu and Wu’s (2007) observation of its generality, flexibility, and the fact that it can be used to study the relationships among its tent constructs that are indicated by multiple measures. Its applicability to both experimental and non-experimental data, as well as cross-sectional and longitudinal data (Lei and Wu, 2007), also influenced the choice of this approach. As intimated by Anderson and Gerbing (1988), SEM possesses advantages over other multivariate techniques, a position corroborated by various authors (Fassinger, 1987; Ghasemi, 2009) who have indicated that SEM can be viewed as a more powerful alternative to multiple regression and factor analysis.

SEM, despite its complex and difficult procedure (Fassinger, 1987, Anderson and Gerbing, 1988), is set apart from all other techniques because it allows for the consideration of simultaneous equations with many dependant variables (Bollen and Long, 1993; Smith, 2004; Shook et al., 2004) while other multivariate techniques, according to Hair et al. (2006), can examine only a single relationship at a time. In applying it, the causal pattern of intervariable relations between the antecedents, components and consequences of market orientation were specified a priori with the aim of determining whether the hypothesised theoretical model outlined in Chapter Four is consistent with the data collected to reflect the theory. The consistency was evaluated through model-data fit, as stated by Lei and Wu (2007), which indicated the extent to which the postulated network of relations among the antecedents, elements and consequence of market orientation was plausible.

The SEM analysis went through the five steps as outlined by Lei and Wu (2007), namely model specification, data collection, model estimation, model evaluation, and model modification. The first stage of the model specification was carried out in Chapter Four based on findings in literature from which causes and effects among antecedents, dimensions and consequences of market orientation were specified. These were conceptualized and communicated in graphical forms with directional arrows to indicate the hypothesized causal direction between the independent (antecedents of market orientation, elements of market
orientation) and dependent (elements of market orientation, consequences of market orientation) variables while unexplained covariance among variables (subscribers and operators’ assessment of market orientation) are indicated by curved arrows (Lei and Wu, 2007).

The second stage (data collection) was undertaken after specifying the model of interest, and this aided in specifying the sample size a priori for administration of questionnaires (321 subscribers and 330 operators’ staff). It was ensured, as directed by Lei and Wu (2007), that the sample size was not too small for the estimation method chosen by applying the general rule that the minimum sample size should not be less than 200 for SEM.

The third stage (model estimation) established the fixed parameters and free parameters estimated from the data. The visible paths denoted by directional arrows from the antecedents of market orientation to the elements of market orientation and from the elements of market orientation to consequences of market orientation, as well as the curved arrows between staff and subscribers’ assessment of market orientation, are considered free parameters to be estimated. On the other hand, all other paths that were not explained, such as from antecedents of market orientation to consequences, were considered as fixed parameters (fixed to zero) and thus were not estimated.

The fourth stage of the SEM analysis undertaken in Chapter Six of this study is model evaluation where, after the model estimation, a decision to retain or reject the hypothesised model was made. The fit of the specified model, as indicated by Yuan (2005), was assessed to determine whether the proposed model was to be accepted or rejected (Hu and Bentler, 1999). The overall model goodness-of-fit, as intimated by Lei and Wu (2007), is reflected in the magnitude of the discrepancy between the observed covariance matrix and the predicted or model covariance matrix as established by the chi-square test. Thus, the chi-square test ($\chi^2$) goodness-of-fit test, with their degrees of freedom ($\chi^2/df$) which tests a null hypothesis that the model is plausible in the population (Fassinger, 1987) and has been reported by many structural equation modeling studies (Dukerish et al., 2002; Hoskisson et al., 2002; Golden et al., 2002), and determined at a range of less than 2 (Ulman, 2001) - less than 5 (Schumacher and Lomax, 2004), was considered appropriate.
However, in recognition of the challenges associated with the chi-square test, that is its sensitivity to sample size (Maruyama, 1998), a variety of alternative goodness-of-fit indices were employed to supplement the chi-square statistics. These alternative indices, as stated by Lei and Wu (2007), attempt to adjust for the effect of sample size and also to take into account model degrees of freedom, which is a proxy for model size. The incremental fit indices (which measure the increase in fit relative to a baseline model), and absolute fit indices (which measure the extent to which the specified model of interest reproduces the sample covariance matrix (Lei and Wu, 2007)) were utilized in this respect. The incremental fit indices used are the comparative fit index (CFI) which compares the fit of a target model to the fit of an independent model (Bentler, 1989,1990); while for absolute fit indices, the adjusted goodness-of-fit index (AGFI) (Joreskog and Sorbom, 1986), and root mean square error of approximation (RMSEA) (Steiger and Lind, 1980) are utilized. Higher values of incremental fit indices (≥0.95), as indicated by Bentler (1989, 1990) were generally accepted as indications of good fit. With absolute fit indices, higher values for Joreskog and Sorbom’s (1986) AGFI (≥0.95) and lower values for Steiger and Lind’s (1980) RMSEA (≤ 0.06) indicate better model fit data.

A major indice also applied is the Akaike Information Criterion (AIC). This reflects the extent to which the observed and predicted covariance matrices differ from each other. With this information theory, the goodness of fit measure was utilised because the maximum likelihood estimation is used (Burnham and Anderson, 1998). Even though the absolute model is irrelevant, values closer to 0 are considered ideal and the AIC value of one model relative to the AIC value of another model is meaningful.

Multiple indices, as recommended by various authors (Lei and Wu 2007; Marsh et al., 1996); were considered simultaneously when the overall model fit was being evaluated: a view also expressed by Jaccard and Wan (1996) who recommend using indices from different classes to overcome the limitations of each index. Thus, besides the chi-square values with their degrees of freedom, other indices employed include the AGFI, CFI, RMSEA and AIC as recommended by Hu and Bentler (1999) in their 2-index strategy. With the model fitting the data well and the estimation solution deemed proper, individual parameter estimates were interpreted and examined for statistical significance by means of t-value (z value) (ratio of the parameter estimate to its standard error estimate).
The final stage of the SEM analysis, which was also carried out in Chapter Six, is model modification. Here, alternative models that fit the data are determined when the hypothesized models are rejected on the basis of goodness-of-fit statistics (Lei and Wu, 2007). That is, in situations where the theoretical model fit was not as strong as desired, the models were modified and the modified model evaluated (Schumacker and Lomax, 2004) to improve the model. This was aided by the modification indices in conjunction with the expected parameter change statistics. The modification index, as indicated by Lei and Wu (2007), entailed estimating the magnitude of decrease in model chi-square (for 1 degrees of freedom) whereas expected parameter change approximated the expected size of change in the parameter estimate when some fixed parameters were freely estimated. That is, indicators were linked to a latent variable from fixed to free or vice versa, allowing or constraining correlations among measurements errors or allowing or constraining correlations among latent variables (Diamantopolous and Siguaw, 1998).

5.7.5.2 Confirmatory Factor Analysis

The measurement model in the SEM was evaluated through confirmatory factor analysis. Confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables (Suhr, 2000). CFA allowed the researcher, as intimated by Suhr (2000), to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. The preference for CFA stems from the point made by Suhr (2000) that traditional statistical methods normally utilise one statistical test to determine the significance of the analysis; however, CFA specifically relies on several statistical tests to determine the adequacy of model fit to the data.

The confirmatory factor analysis sought to statistically test the significance of the hypothesized factor model. The factor structures are hypothesized a priori and verified empirically with the number of factors assumed to be known (Lei and Wu, 2007). This was used to examine the number of latent constructs underlying the observed responses and to evaluate the adequacy of individual items or variables as indicators for the latent constructs they are supposed to measure (Lei and Wu, 2007). It was, as stated by Field (2005), assumed that commonalities are initially one; that is, total variance of the variables can be accounted for by means of its components (or factors) and hence there is no error variance.
5.7.5.3 T-Test

Based on the data collected on components of market orientation from respondents in Ghana’s mobile telecommunications industry operator-subscriber dyads, paired T-tests were also performed to determine whether market orientation perceptions differ between operators and their subscribers. This test is utilised because of its ability to compare the means of two samples (or respondents), even if they have different numbers of replicates. It enabled the comparison of the actual difference between two means (subscribers and operators’ mean) in relation to the variation in the data (expressed as the standard deviation of the difference between the means). The mean ratings of operators’ own assessment of their firms was compared with the subscribers’ assessment of operators’ market orientation to establish if there was any significant difference.

5.7.5.4 Test for Reliability and Validity

To assess overall reliability and validity, various tests, namely composite reliability tests, face or content validity, convergent validity, discriminant validity, and nomological validity were carried out. A composite reliability test was undertaken to assess internal consistency analogous to coefficient of alpha. This was calculated by: 
\[(\text{Sum of standardized loadings})^2 / ((\text{Sum of standardized loadings})^2 + (\text{Sum of indicator measurement error})).\]

The choice of this reliability test method was based on the fact, adduced by Shock et al. (2004), that composite reliability represents a better choice as it draws on the standardized loadings and measurement error for each item. Customer emphasis, interdepartmental connectedness, competition, esprit de corps, customer satisfaction, and business performance obtained composite reliability figures of 0.98, with the least figure of 0.87 obtained by intelligence generation. All the constructs thus obtained figures higher than Bagozzi and Yi’s (1988) recommended level of 0.6.

Content validity, which refers to the degree to which elements of a measurement instrument are relevant to, and representative of, the targeted construct for a particular assessment purpose (Netemeyer et al., 2003) was undertaken. This is acceptable if there is a general understanding between the subject and the researcher that constituent parts of the instrument incorporate all the aspects of the object studied. Thus, it depends on the precision of the elements designed by the researcher to measure the study object (Nunnally, 1978). The market orientation items, antecedents and consequences are based on a comprehensive
literature review and only those that have been validated in previous empirical studies were included in the analyses. Although a subjective judgment, the tests that assure the required content validity were applied. The first of these was the Cronbach's Alpha coefficient (Churchill, 1979) at a recommended level of 0.7 (Nunnally, 1978).

In establishing convergent validity factor loadings, the average variances extracted (AVEs) and composite reliability were indicated, which in all cases, were high. AVE, which indicates the amount of variance that is captured by the construct in relation to the amount of variance due to measurement error, was as high as 0.93 for customer emphasis and business performance, with intelligence generation obtaining 0.68, which was the least. All others had figures well above Diamantopolous and Siguaw's (2000) recommended level of 0.5. In addition as indicated by Gerbing and Anderson (1988), the correlation between the indicators was high, a reflection of the internal consistency and hence, the constructs’ unidimensionality.

Discriminant validity, which is the degree to which measures of different model dimensions are unique (Sethi and King, 1994), requires that a measure does not correlate too highly with measures from which it is supposed to differ (Netemeyer et al., 2003), was determined. As prescribed by Fornel and Larcker (1981), this was determined by comparing the shared variance between each pair of constructs against the minimum of the average variance extracts (AVEs) for the two constructs. The eighteen-construct model demonstrated discriminant validity because the indicators have more in common with the construct they are associated with than they do with other constructs.

5.8 Ethical Considerations

As proposed by Malhotra (2007), data was obtained and analysed with strict adherence to ethical considerations. Ethical treatment of respondents, according to Cooper and Schindler (2001), is the most important ethical issue to ensure rights are not compromised in any way. Cooper and Schindler’s (2001) advice that researchers have to judge what activities are inappropriate and what activities must be undertaken to ensure that no one will be at a disadvantage as a result of the research, was a major ethical consideration. In designing the questionnaire the researcher ensured that questions were not overly long; and desisted from asking sensitive questions, piggy backing and biasing the questionnaire. Questions asked were not intended to invade respondents’ privacy or cause them undue
stress. This was achieved by making it clear to the respondents at the beginning of the interview that they were not obligated to answer any question that could make them uncomfortable. This ensured that deceptions were eliminated because, as stated by Zikmund (2003), deception occurs when the researcher disguises the real purpose of the research that could be harmful to the respondents or any other party.

Furthermore, the appropriate types of scales to obtain the data needed to answer the research questions and test the hypotheses were used. Scales that exhibited reasonable reliability, validity and generalizability were used. Care was taken to ensure that the scales were not so biased to slant the findings in any particular direction. Thus, balanced scales with comparable positive and negative descriptors were used.

The integrity of the data collection process was ensured. Respondents were made to feel as comfortable as possible by addressing their apprehensions. This was done by providing them with adequate information about the purpose of the research, addressing their questions, and clearly stating the responsibilities and expectations at the start of the interviews. A cover letter was prepared that described the nature and purpose of the study. In addition respondents were told that they were not under any obligation to answer questions that make them uncomfortable, and that they could terminate the interview at any point should they experience any discomfort as advised by various researchers (Leary, 1995; Furlong et al., 2000). The respondents’ privacy, feelings and dignity were respected. It ensured that the respondents were left with a positive and pleasant experience to enhance goodwill and future cooperation.

In the sampling process, the sampling design developed was appropriate for controlling the sampling and nonsampling errors. It ensured that when non-probability was used, effort was made to obtain a representative sample.

While checking, editing, coding, transcribing, and cleaning during the data presentation and analysis, the researcher tried and obtained some idea about the quality of the data. The analysis was undertaken only after identifying unsatisfactory respondents. The procedure used to identify unsatisfactory respondents and the number of respondents discarded were clearly disclosed. This ensured that high standards were maintained and the data obtained was accurate as prescribed by Zikmund (2003).
The research reporting process was maintained to ensure that the data was collected, analysed and interpreted in an honest manner and that true research findings are presented as specified (Kinnear and Taylor, 1996).

5.9 **Summary of the Chapter**

This chapter of the study has explained and justified the research paradigm, design and methodology for the study on market orientation and firm performance in Ghana’s mobile telecommunications industry. It has clearly established the basis for the adoption of a critical realism philosophy and subsequent adoption of a mixed method of qualitative and quantitative research design. The population, sample size and method have also been discussed. The chapter explained the use of in-depth interviews and surveys as the data collection methods with the aid of an interview guide and questionnaire as the research instruments, and as well discussed the conduct of interviews and the mode of administration of the research instruments. The ethical considerations, which have guided the study, have also been captured in the chapter. The next chapter, presents an analysis of the qualitative data obtained for the study by means of in-depth interviews.
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197
CHAPTER SIX

ANALYSIS AND FINDINGS OF QUALITATIVE DATA

6.1 Introduction

This chapter presents the findings of the qualitative in-depth interviews based on information obtained from ten senior managers and officers in Ghana’s mobile telecommunications organisations. A judgemental sampling method was employed to select two senior managers each from five mobile telecommunications firms in Ghana. The interview questions sought to provide answers to questions on market orientation in Ghana’s mobile telecommunications industry. Specific areas covered to generate the requisite answers include the respondents’ understanding of marketing orientation; factors within and outside the organisation that influence market orientation; and the effects of either being or not being market orientated. Additional questions focused on trying to find out what elements of market orientation were practised by the firms. Specific questions included the organisation’s extent of emphasis on customers and activities carried out in that respect, generation of customer intelligence and how it is undertaken, dissemination of customer intelligence and how it is carried out, and the extent to which action is taken to respond to the information acquired on customers and how quickly it is responded to, that is, if it is responded to at all. The thematic analysis technique was used in the analysis of information obtained, and the presentation of the findings provides a true reflection of the dimensions of market orientation practiced in Ghana’s mobile telecommunications industry.

6.2 Analysis of Qualitative Findings

6.2.1 Background of Staff Interviewee Respondents

Table 6.1 provides the background details of staff respondents for qualitative in-depth interviews in terms of their gender, age and length of service with their various mobile telecommunications firms.
Table 6.1 Background of Staff

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25 yrs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26-35 yrs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>36-45 yrs</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>46-55 yrs</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Above 55 yrs</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 yr</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1 - 4 yrs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4 - 7 yrs</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>7 - 10 yrs</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>Above 10 yrs</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Fieldwork, 2014

Table 6.1 clearly indicates that 60% of the respondents were male and 40% female. Thus, there was a fair representation of both genders during the interview even though there was a predominance of males.

In Table 6.1, 50% of the respondents are between ages 46-55, 40% between ages 36-45, and 10% above age 55. This indicates that these senior manager respondents are of middle age.

Table 6.1, shows that 40% of respondents have worked with their respective mobile network for above 10 years, 30% have worked between 7-10 years, and another 30% between 4-7 years. Respondents have thus been associated with their respective companies for a reasonable length of time; and by virtue of the senior positions, they are well placed to respond to the questions on the dimensions of market orientation.
6.2.2 General Questions on Market Orientation

At the onset of the interview, the researcher sought to find out the interviewee’s opinion on what market orientation is; the internal and external factors likely to influence an organization’s market orientation; the benefits to be derived from being market oriented; and what the likely effects are if an organization does not possess a marketing oriented culture. Respondents were required to provide answers to questions in that respect.

Definition of Market Orientation

Ques1a: Can you please explain what market orientation means to you?

Ans: Four of the interviewees mentioned insight into customer needs, two mentioned the role of the customer within the organisation and six respondents mentioned an understanding and analysis of customer needs that guide the organisation. One of the respondents, however, mentioned profits as an important aspect of marketing orientation as organisations exist to make profits.

The following definitions are indicative of some responses provided.

The Manager Customer Loyalty and Retention of a mobile telecommunications company states:

“Market orientation basically relates to business being focused and being directed by marketing size to drive our initiatives or anything we want to do. We just wouldn’t want to come out and do anything, anyhow but we want to appreciate where our customers are coming from and because we do appreciate that, the insights we pick up inform what we do in return of giving back to the customer.”

The Brands Manager of a mobile telecommunications company states:

“My understanding of market orientation basically has to do with the role of the customer within the organization, the importance or the integral role the customer plays within the business. For, organizations that are market oriented place a lot of importance on understanding customer needs, analyzing needs and ensuring that it guides everything they do in terms of the product development, product design etc and even goes to market activities.”

The Business Solutions and Account Manager states:

“It’s understanding the marketing needs or consumer needs and making sure that you provide the necessary solution. Of course, we are an organization that makes profit so profits. Now the orientation is more for us people to get the principle that we exist because of the customer and the customer is king and everything we do revolves around the customer and trying to embed that from the receptionist to the highest level.”
From the responses, it is evident that within Ghana’s mobile telecommunications industry, operators recognize the key role that customers play in their service delivery and ultimate profit and thus have an understanding of marketing orientation as placing emphasis on customers, understanding them and providing them with the requisite needs and wants that, according to some of them ultimately translate into profits.

**Activities of Market Oriented Organisations**

**Ques1b:** Describe the activities that are undertaken by a market oriented company.

**Ans:** Eight of the respondents mentioned research and the sharing of research information internally as an integral activity of a marketing oriented organisation, and according to six of the respondents, the purpose is to understand their customers. Six of the respondents mentioned delivery of communications to customers on the products they have subscribed to as important activity undertaken by a market oriented company.

As was noted by some respondents:

The Director, Marketing and Sales of a mobile telecommunications company states:

“We want to appreciate what the customers want. We just don’t go like we feel like selling airtime so we end up packaging anything to give to them. It will be informed by our research, their level of satisfaction.”

The Manager, Customer Loyalty and Retention of a mobile telecommunications company notes:

“First of all to ensure we understand customer’s needs and we do that by researching. We conduct a number of research to try and understand customer needs. We also take a lot of feedback from customers through our customer service centres and our social media where we are engaged in a lot of interactivities and when we get complaints we take them quite serious.”

The Marketing Director of a mobile telecommunications company states:

“The last thing is interdepartmental coordination so marketing liaising with commercial liaising with sales liaising with the network operations guy liaising with customer service to share research information or findings to ensure that whatever actions that needs to be taken are taken to satisfy customer needs.”

The Commercial Manager of a market oriented firm also notes:

“Normally when people hear of consumer centric they think of oh those people in the commercial departments. They are the ones who need to worry about the consumer. The engineer needs to worry about the consumer, the receptionists needs to, the customer service
obviously, the IT person because these are the guys that provide the support to the frontline which enables us to be able to deliver.”

The Marketing Manager of a mobile telecommunications company also notes:

“We also try and understand competition, what competition is doing, where their strengths are, where their weaknesses are, and how we can take advantage of that.”

There is, thus, some consensus in Ghana’s mobile telecommunications industry that marketing oriented firms need to undertake research, share research internally, coordinate activities internally to satisfy customers, and also communicate effectively internally and externally. Some, however, recognize the need to pay attention to competitors as an important activity of a market oriented company.

**Internal Activities that Encourage Market Orientation**

**Ques1c:** What internal activities will you say influence market orientation?

**Ans:** Six respondents mentioned leadership as an important internal activity that encourages market orientation, three of the respondents indicated the gathering of data, two respondents mentioned giving staff a sense of ownership and responsibility and four of the respondents indicated getting staff orientated to customers.

As was stated by some of the respondents:

The Brands Manager of a mobile telecommunications company notes:

“As a business we believe in gathering a lot of data. The challenge though is the ability to manage those data and manage them effectively but then it is a culture, one of the business’ culture to gather customer information.”

The Business Solutions and Account Manager of a mobile telecommunications firm states:

“For us the leadership that we get and here we have some people leading these things”

The Commercial Director of a mobile telecommunications company states:

“Get those at the base buying into it and championing it, you give them a sense of responsibility, you give them a sense of ownership and also allows them to feel a part of the process”

In Ghana’s mobile telecommunications industry, therefore, there is recognition of internal activities that facilitate market orientation and some of these acknowledged include: leadership, a culture of data collection, a sense of delegation and empowerment, and an acceptance that everyone has a role in making the organization market oriented.
External Activities that Influence Market Orientation

Ques1d: What external activities can influence the adoption of market orientation in your organisation?

Ans: All the respondents mentioned competition as a major external factor that can impact upon the market orientation of a mobile telecommunications company in Ghana; six of the respondents mentioned technological advancement as a major external factor and two mentioned changing customer demands and lifestyles. This is expressed in the following responses:

The Business Solutions and Account Manager of a mobile telecommunications firm states:

“What are the other businesses doing even whether in our industry or outside our industries.”

The High Value Retail Manager of a mobile telecommunications company states:

“Outside of our organization I think it is a competitive landscape, so the competitive landscape, number two technological advancement and third with the changing lifestyle and needs. So that serve customer better and ultimately drive customer loyalty.”

The Brands Manager of a mobile telecommunications company states:

“Competitors, and so we assess our internal strengths and what resources and capabilities we have at our disposal to counter what competition has done and then with the knowledge we have with the consumer we design products and services to differentiate us, make ours look better than what competition has to meet customer need.”

Hence, within Ghana’s mobile telecommunications industry there is an acceptance that competitive activity and technological advancement and, to some extent, consumers’ changing demands can impact on the market orientation activities of a mobile telecommunications operator.

Effects of Being Market Oriented

Ques1e: Could you please give an account of the changes in your organization for being market oriented?

Ans: All the respondents noted that a market oriented mobile telecommunications company becomes competitive and gains customer loyalty. Six of the respondents indicated the development of products and services that meet customer expectations. Three respondents noted financial benefits derived from being marketing oriented and two respondents indicated customers’ preparedness to pay a premium price for products and services while four respondents indicated profitability.

203
The Brands Manager of a mobile telecommunications firm aptly sums up the views of respondents on the effect of market orientation on mobile operators:

“Yes there are. First, I will say that understanding customer needs helps you design products and services that best meets customer needs. When customer is happy or he or she believes is getting value from your products and services they will use you more. When they use you more ultimately translates into revenue and if consumers have confidence in your products and services they will be willing to pay more so the return on your investment will be high, you can also charge a premium; in some cases your margins will also be better, profitability of the business will also be better. And you should also be able to create a competitive advantage because there should be some sort of loyalty or bonding between your products and services and the customer and yeah you should be able to grow market share I would say.”

Thus, in Ghana’s mobile telecommunications industry, operators recognize that there are benefits to be gained from being market oriented, such as competitive advantage; customer loyalty; development of relevant products and services; and profitability. There is, therefore, the motivation for mobile telecommunications operators in Ghana to be marketing oriented.

**Effects of Not Being Market Oriented**

**Ques1f:** What are the likely effects of an organisation not being market oriented?

**Ans:** All the respondents indicated that if a mobile telecommunications operator in Ghana is not market oriented, it is likely to lose customers referred to as churn in the industry; six indicated loss of revenue and profitability; and two indicated loss of competitive advantage. Two of the respondents indicated the extreme possibility of the demise of the company and two respondents noted bad press.

As noted by the following respondents:

The High Value Retail Manager of a mobile telecommunications company notes:

“Customers will complain about your services so there would be negative word of mouth definitely more people will not be buying, you will not be making revenues that you expect to make and with time you will go out of business.”

The Commercial Director of a mobile telecommunications firm states:

“Things as I have said will be difficult because then you risk going out of business you even risk having a lot bad press in the media and social media.”
The Business Solutions and Account Manager of a mobile telecommunications firm simply puts it as:

“Loss of all the benefits to be derived from being market oriented.”

Mobile telecommunications operators in Ghana thus recognize the adverse effects of a firm not being market oriented. They recognise the likelihood of loss of customers, profits, revenue, market share and competitive advantage. There is, therefore, the recognition for mobile telecommunications operators in Ghana to be market oriented.

6.2.3 Elements of Market Orientation

In a bid to establish the practical elements of market orientation being undertaken by firms in Ghana’s mobile telecommunications industry, respondents were asked specific questions relating to their focus on customers, customer intelligence generation, customer intelligence dissemination, and the taking of action. Responses provided are presented and analysed as follows:

Customer Emphasis

Importance of Customers

Ques 2a: How important are customers to your organization’s activities and how is this portrayed in your organization?

Ans: All the ten respondents indicated that customers are very important to their activities and thus take their issues into consideration when making decisions. Two of the respondents indicated that they have special meetings on a weekly basis specifically focused on customer needs, emphasizing the importance of customers to their operations. All the respondents indicated that they have call centres, which seek to provide quick and immediate response to customers’ enquiries.

The Manager, Customer Loyalty and Retention of one of the mobile telecommunications firms notes:

“Very much so. That’s why every other time we are engaging them, we want to know what it is we are doing better, what it is we are not doing better.”

The Business Solutions and Account Manager also in response to the same questions states:

“We try to, we try to and I always say that focusing on the customer is a journey; it’s like delivering a service, it’s a journey you take.”
Mobile telecommunication operators in Ghana recognize the importance of customers in their activities and operations and place emphasis on satisfying their needs and wants. They have as a result instituted various systems and structures focused on customers as an indication of the importance of customers to them.

**How Customers Feature in Decision-Making**

**Ques2b)** To what extent do customers feature in your decision-making?

**Ans:** Eight of the respondents noted that customers always feature in their decision making processes and two noted that it was to a large extent. They will, on most occasions, not take any decision without incorporating the input of the customers, according to six of the interviewees; two respondents indicated that customers, above everything, were their priority and every decision revolves around them.

As noted by the Brands Manager of one of the mobile telecommunications company:

“..........the business says everything we do should and must be about customers and so we say for every product that is being developed and for every activity it should be about the customer.......for example the Brand Health tracker consistently has revealed that customers are placing a lot of input on CSRs by the telcos and so as a result of this the company has voted a lot of budget into CSR activities and coordinating our CSR activities and giving our CSR activities more publicity. So we do a number of CSR activities every quarter we put them into a documentary to let people know so that consumers will begin to associate our company with CSR so such an initiative was driven purely by customers.”

The Marketing Director of a mobile telecommunications company notes that:

“We want to better a whole lot of their lives. It’s not about just giving them a service but something that enhances their lives. That is the businesses for instance how we give them business solutions to enhance their business.”

Thus, operators in Ghana’s mobile telecommunications industry recognize the importance of customer needs and integrate them into their decision making. The extent of involvement of customers in the decision making, however, varied from organisation to organisation.

**Evidence of Customers Featuring in Decision-Making**

**Ques2c)** How do customers feature in your organisation’s decision making process?

**Ans:** Three of the respondents indicated that it is expressed in the amount of money they commit to trying to satisfy their customers. Six of them indicated that it is expressed in the way they collect information on customers and try to understand them and serve them. Eight
of them indicated that the importance of customers to their organizations is seen in the way they constantly engage them to find out their needs and how best to satisfy them.

The Brands Manager of one of the mobile telecommunications companies notes:

“The importance of customers is portrayed in the amount of money the business invests in trying to gather customer data or customer information through the brand health tracker report to see how the brand is doing, customer perception through customer satisfaction surveys, pre-testing of products and services and even advertising campaigns to make sure that it sits well with the customer.”

The Marketing Manager of one of the mobile telecommunications companies also notes that:

“In our industry the investments that you do to expand your network, to improve quality, improve your technology, to improve your environment so all those things drives customer being at centre because if you do your research or you are customer centred you know the customer is saying I want quality, I want coverage, I don’t want call drops, I want good clean customer service, I want to be associated with the brand that is upwardly mobile so on and so forth so those are the things we aspire to.”

From the responses, it is evident that in Ghana’s mobile telecommunications companies, the players see customers as very essential to the success of their activities and have deployed various systems and strategies to ensure that they engage them and satisfy their needs and wants.

**Intelligence Generation**

**Collection of Customer Information**

**Ques 3a:** Do you collect information on customers’ current and future needs?

**Ans:** All the ten respondents indicate that they collect information on their customers as well as competitors. The generation of information, according to six of the respondents, is key to their activities because they never take any key decision without incorporating intelligence generated from their customers. Two of the respondents indicated that information collected on customers is very extensive and comprehensive to ensure that they truly understand their customers.

The High Value Retail Manager of one of the mobile telecommunications networks notes that:

“Information on customers is vital for any decision process and it will be inimical to our growth, progress and success if we do not generate relevant and appropriate information on our customers.”
The Commercial Director of a mobile telecommunications firm states:

“The customer satisfaction survey is a clear evidence of the fact that we collect information on our customers.”

From the responses, it is observed that operators in Ghana’s mobile telecommunications industry collect information on their customers and, for some of them this forms an integral part of the activities of their organization.

**How Customer Information is Generated**

Ques 3b: **How do you generate information on customers?**

Ans: All the respondents indicated that they use surveys; six of them indicated that besides what they do internally they also employ the services of external research agencies, and four of them indicated that their vendors assist with the generation of intelligence on their customers. All the respondents indicated that their companies have call centres where they use both inbound and outbound methods to generate information on customers.

In the words of the Revenue and Market Planning Manager:

“We do this sometimes directly through our call centre where we have the outbound staff to do that. Sometimes we have that marketing done by the research department. We also engage some third parties, agencies to do some of these close feedback or sometimes through mystery shopping, sometimes we engage people like we are doing presently.”

The Business Solutions and Account Manager of a mobile telecommunications firm also states:

“We have the external research agency and we have the internal research which we call telemarketing so the external research is via focus group via quantitative research, focus group via qualitative and the internal is via telemarketing which is telephone.”

The Commercial Director of a mobile telecommunications firm notes:

“The customer satisfaction survey is a very important tool for us and our call centres where for instance if you call our call centre you are even told that your call is being recorded for monitoring purposes and randomly calls are picked.”

The results of the interviews indicate that organisations in Ghana’s mobile telecommunications industry make a conscious effort to collect information on their customers. This is exemplified in the cost of resources they expend on equipment and systems such as call centres, which continuously generate information on their customers; and they also elicit the services of external bodies to conduct research on their behalf.
How Often Customer Information is Generated

Ques 3c) How often do you generate information on your customers?

Ans: Regarding the frequency and regularity of information generated on customers, six of the respondents noted that some are ongoing, others when the need arises. Three of the respondents noted quarterly, five noted monthly, with two of them indicating weekly.

The Director, Sales and Marketing when asked how often this information generation is carried states:

“I can tell it is as much as often to inform decision making.”

The Commercial Director of a mobile telecommunications company noted the following regarding the regularity of information generation:

“It’s an ongoing thing, it’s ongoing. Normally you will have your quarterly trackers so every quarter you get your brand tracker every quarter you get your AC Nielsen retail data, then you have your telemarketing which is every week. Some you might like it but some you will like to say I am fine with it. So it’s a daily thing everyday something drops, by the end of the week they give you a summary with the data. If you think there’s something that interests you as a department then you might say ok can you do external for me.”

The Commercial Director of a mobile telecommunications firm states that:

“The customer satisfaction survey I think is done once every quarter, the brand health tracker is done twice a year and the brand drag is done once a year.”

From the responses, it will be noticed that customer intelligence generation is a key feature in Ghana’s mobile telecommunications industry. The nature and regularity, however, varies from organization to organization but mobile telecommunications operators in Ghana ensure the collection of information for decision making.

Intelligence Dissemination

Sharing of Customer Information Internally

Ques 4a) Do you internally share information obtained on customers?

Ans: All the ten respondents indicated that they share information obtained on customers with other internal departments; however, two of them indicated that the sharing of the information depends on the relevance of the information to the department.
The Marketing Director of a mobile telecommunications company states:

“Yes we do. At least if for nothing all the commercial units have this information and for commercial I am talking about marketing, sales, customer care and we also have corporate service and to some extent the technical team.”

The Commercial Director of a mobile telecommunications firm notes:

“Yes it depends on the relevance of that information to that department so to the relevant department yes, to the non-relevant department it’s more of for your information or rather for your consumption.”

The responses attest to the fact that in Ghana’s mobile telecommunications industry information obtained on customers is shared internally and issues affecting customers are made known to the relevant departments sometimes for the necessary action and other times just for their information.

**How Customer Information is Shared**

**Ques 4b) How is information obtained on customers shared internally within the organisation?**

**Ans:** Six of the respondents indicated that they have what they call interdepartmental meetings at which information generated on customers is shared; however, four others noted that, even though they have meetings involving various sections and departments focused on customer needs, they do not necessarily refer to it as interdepartmental meetings. Two of the respondents further indicated that information pertaining to customers was distributed through letters sent to relevant departments and one respondent indicated via the notice boards.

As stated by some of the respondents:

The Marketing Director of mobile telecommunications company notes:

“We have interdepartmental meetings. We have two key meetings, we have the commercial meeting and we have the management meeting. The management meeting is itself self-explanatory. We have everyone Head of Department meet there, the commercial meeting involves the HODs and the category managers.”

The Revenue and Marketing Planning Manager of a mobile telecommunications company also notes:

“Several. The Wallroom is an interdepartmental one and depending on any initiative or anything there are project teams that work as frequently as sometimes its daily.”
In the words of a Manager, Customer Loyalty and Retention of a mobile telecommunications company:

“On weekly basis we have to meet and additional meetings as and when necessary........We sit down at least on quarterly basis to brainstorm about what is happening, but beyond that there are different levels of management meetings or sectional meetings or cross-functional meetings to redress some of these network failure........”

The results reveal that operators in Ghana’s mobile telecommunications industry have scheduled and unscheduled meetings to share customer information and deliberate on the needs of customers. The sharing of information is considered important if it is able to meet customers’ expectations and address their needs.

**Frequency of Sharing Customer Information**

**Ques 4c) How frequently are the meetings held to share information obtained on customers?**

**Ans:** All the ten respondents indicated they met weekly to deliberate on customer information generated, with three of them indicating that if anything of urgent interest came up on customers an emergency meeting would be convened to address it. Two of the respondents however indicated that through their internal communication systems, they regularly shared information on customers without convening any formal meetings.

The Marketing Director of one of the mobile telecommunications company notes:

“workers including the HODs meet to deliberate and that one we have everybody because we are all interdependent on each other so we have everyone coming so we have two key meetings other than that we have the project meetings and the directors meetings and these meetings can be fortnightly, monthly quarterly etc depending on what information is available to share.”

The Director, Marketing and Sales of a mobile telecommunication firm notes:

“If there is anything and that would be and sometimes it’s easily understood it’s shared via the normal electronic mail. It depends on the research type, some are very easy to consume but others you need more, especially where there are quantitative analysis.”

The Commercial Director of a mobile telecommunications firm notes:

“The voice of the customer meeting is held weekly I think on Thursdays”.

The results from the interviews reveal that organisations in Ghana’s mobile telecommunications industry meet often to deliberate on their customers and their needs. However, the frequency and regularity varied among operators even though weekly meetings are pervasive.
Customers’ Concerns Featured in Meetings

Ques 4d) Do customers’ concerns feature prominently in these meetings?  

Ans: All the ten respondents indicated that customers’ concerns and issues feature prominently in these meetings even though three of the respondents also noted that other issues besides customers’ concerns are discussed at these meetings. One of the respondents however noted that there is a weekly meeting that focuses just on the customer. Two of the respondents were keen to note that discussions on customer issues tend to be very intense and passionate.

Some respondents for instance note:

The Manager, Customer Loyalty and Retention of one of the mobile telecommunications states:

“The customer features very much in all of this because it is about the customer. If it is not about the customer then I will go like oh I have finished with my concept.”

The High Value Retail Manager of one of the mobile telecommunications company also notes:

“Yes the customer features and now what it is, is that there would be the usual product meeting, there would be the usual customer service feedback this is what the customer is saying this is the feedback........... and normally by the time we leave there we have armed the customer service people to go out there and deliver either the right information or to deliver the right solution”.

The Commercial Director of a mobile telecommunications firm notes:

“The voice of the customer meeting basically looks at things customers are talking about or are complaining about and how we are resolving them and who is supposed to do what at any particular point in time, it’s all about the customer that’s why it is called the voice of customer.”

From the responses, it can be noticed that meetings held in Ghana’s mobile telecommunications industry have customer issues featuring prominently. Efforts are made to provide frontline staff with the requisite responses to customers’ concerns that are raised at the meetings and addressed.
Intelligence Responsiveness/Taking Action

Responding to Customers’ Information

Ques 5a) Does your organization respond to information generated on customer needs?

Ans: All the respondents indicated that they respond to information generated on customers regarding their needs and wants. Once a decision on customers is taken at meetings, officials concerned are mandated to take the necessary steps to address the customers’ concerns, according to six of the respondents.

In the words of the Brands Manager of a mobile telecommunications company:

“Yes, yes actions are taken then they are tracked and reported back by the various people responsible.”

The Director, Sales and Marketing notes:

“Yes because it is catalogued and its tracked so a typical meeting and there is a person who is a coordinator of the meeting who is responsible so the following meeting we will come in and review what we said we will do with feedback.”

The Marketing Manager of a mobile telecommunications firm states:

“Yes we do, that’s why within our customer care we have the back office. First the touch point, you will go in as a customer to complain either through the call centre and we have times for resolution of customer concerns.”

The results reveal that in Ghana’s mobile telecommunications industry, the appropriate action is taken when information on customers is generated that requires a response from the organisation and a decision has been made in that respect.

Response Time to Customers

Ques 5b) How quickly does your organisation respond to the information generated and disseminated on customers’ needs?

Ans: All the respondents indicated that the response to the intelligence generated depends on the nature of the issue identified; eight of them added that it depends also on resources required, with three further indicating that it will also depend on its overall impact on the activities of the organization.
The Business Solutions and Market Planning Manager states that:

“It depends on the kind of complaint and enquiry you are doing. Some per definition in our own system the service person or contact person should be able to do that within a certain minimum of time and I know typically within 48 hours things that are not like major technical issue may be breakdown of networks they should be cleared and they have their own KPIs they measure these things with.”

The Manager, Customer Loyalty Retention notes that:

“Sometimes it can take forever, sometimes depends on the nature of the issue. If it is something that can be resolved at the level of the customer service agent they resolve immediately…… There are some of them that have to go all the way to network. Some have to go all the way to the CEO so it depends on the level or nature of the issue.”

The High Value Retail Manager notes that:

“The time frame depends, depends on if realistically it can be done, some can be done within 24hrs, some immediately it depends on what we are looking at. If it is a network issue say in particular area say they have a generator issue then it might take some time for them to resolve them so it is dependent on the specific….if it’s a fibre cut, you can reroute a traffic through an area but it can take some time that’s we have some downturn there can be downturn or sometimes it rains heavily.”

The results from the interviews reveal that, as much as mobile telecommunications operators in Ghana take the necessary action on customer information generated and shared, the response time is not the same for all the issues as it will depend on their nature and the magnitude of the issue, resources required, and for some, the ultimate effect on the organisation as a whole.

**Providing Feedback to Customers**

**Ques 5c)** Do you provide feedback to customers on issues resolved and how so if you do?

**Ans:** Two of the respondents indicated that they provide feedback to customers on issues they raise which have been resolved through the medium in which the complaint was logged. Three other respondents noted that they don’t really provide feedback. Five of the respondents note that, on an individual basis, they usually don’t provide feedback to the customers, however, if it is some major issue that affects a large section of their customers, such as network failure or loss of credit through an upgrade of their systems, they provide some feedback through the electronic and print media.
The Business Solutions and Account Manager of a mobile telecommunications firm states:

“So we have a team that looks at it, that gets the feedback to the customer via if you query through mail we will reply through mail, our social media people are also engaging customer complaints on social media, via twitter via facebook, anything to do with that they are there then, we have the online business people who are there also looking at it then the call centre people who are also addressing, we have the customer service people so all these facets are taking feedback to the customers.”

The High Value Retail Manager also notes:

“Feedback to customers, is really not part of it except that when there is a systems breakdown, several customers are complaining because of loss of credit, network failure then when we resolve it we would go to the print and electronic media to inform them about it but generally we don’t.”

From the responses, it can be noticed that in-as-much as operators in Ghana’s mobile telecommunications industry strive to address customer complaints and issues, there is hardly any feedback given to them, especially on individual customer concerns when they are resolved. The exception is when it is on a large scale and affects several customers. Even here, the feedback is not personalized, but disseminated through a mass media outlet.

6.3 Summary of the Chapter

This chapter of the study has provided findings and analysis of in-depth interviews with major decision makers in Ghana’s mobile telecommunications industry on market orientation.

The interviews sought to find out from some senior officers in Ghana’s mobile telecommunications industry what they understand by the term “market orientation”, their appreciation of the internal and external factors, if any, that influence market orientation, and the benefits to be gained from being market oriented, as well as the challenges to be faced if not market oriented. Furthermore, the interviews sought to find out if there were any specific market orientation activities that were being undertaken by mobile telecom firms operating in Ghana. In that regard questions were asked on their focus on customers, the generation and dissemination of customer intelligence information and how it is undertaken, and finally, if any action is taken when the information on customers is obtained.
The findings reveal that officers in Ghana’s mobile telecommunications industry understand market orientation as placing emphasis on customers, even though this was variously stated and explained. Furthermore, they recognised some internal and external factors that influenced market orientation, such as leadership, data gathering, staff empowerment, competition, and technology, even though for the firms the emphasis was not the same for all the factors. Despite degrees of recognition, they also acknowledged the fact that being market oriented will enable them to be competitive, profitable, and gain customer loyalty, while not being market oriented will lead to loss of customers (referred to as churn in the industry), revenue, profitability and competitive advantage.

The findings also revealed that firms in Ghana’s telecommunications industry are engaged in marketing oriented activities. The nature and character of specific marketing oriented activities however varied from organization to organization. The firms, as evidence of market orientation focused on their customers even though in specific organizations this was variously exhibited. They also generated and disseminated customer information and, except in a few situations where they engaged in similar activities, they had divergent approaches to carrying out these activities. Finally, they all sought to take action on the information received on customers, except that there was no unanimity in the approach or time frame for carrying out the necessary actions.

To an extent, it can be stated that mobile telecommunications firms in Ghana are market oriented even though its impact varies from firm to firm. The next chapter presents an analysis of quantitative survey research data obtained from staff and customers of the mobile telecommunications companies in Ghana.
CHAPTER SEVEN
QUANTITATIVE RESEARCH FINDINGS

7.1 Introduction

This chapter provides an analysis and discussion of quantitative research results. A research survey research was undertaken in Ghana’s mobile telecommunications industry by administering questionnaires to 275 staff members and 302 subscribers from the six mobile telecommunication firms to assess marketing orientation practices and their effect on business performance. These figures represent an acceptable sample range for structural equation modelling (SEM), according to Guadagnoli and Velicer (1998) and Kelloway (1998) who recommend a minimum of 150 and 200 respectively.

The statistical methods employed include confirmatory factor analysis, structural equation modelling, correlation matrix and T Test. The study hypothesized that:

H1: There is a positive relationship between senior management characteristics (top management emphasis, risk aversion, formal education and marketing training) and market orientation.

H2: There is a positive relationship between interdepartmental dynamics (connectedness and conflict) and market orientation.

H3: There is a positive relationship between organizational system (reward systems, formalization, and centralization) and market orientation.

H4: There is a positive relationship between environmental factors (market turbulence, competitive intensity and technological turbulence) and market orientation.

H5: Ghana’s mobile telecommunications operators exhibit elements of market orientation of customer emphasis, intelligence generation, dissemination and responsiveness.

H6: There is a positive relationship between market orientation and employee consequence of commitment and esprit de corps.

H7: There is a positive relationship between market orientation and customer consequences of customer satisfaction and customer repeat purchases.

H8: There is a positive relationship between market orientation and financial performance (ARPU, profitability, number of subscribers, growth of the subscriber base and market share).

H9: Industry ratings of market orientation will significantly differ between subscribers and providers of mobile telecommunications services.
The results of data analysed have been presented in the tables and figures below.

### 7.2 Staff Background Information

**Table 7.1: Background of Staff Respondents**

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</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25 yrs</td>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>26-35 yrs</td>
<td>130</td>
<td>47</td>
</tr>
<tr>
<td>36-45 yrs</td>
<td>52</td>
<td>19</td>
</tr>
<tr>
<td>46-55 yrs</td>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>Above 55 yrs</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>275</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td><strong>Duration of Work with Company</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 1 yr</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td>1 - 4 yrs</td>
<td>90</td>
<td>33</td>
</tr>
<tr>
<td>4 - 7 yrs</td>
<td>90</td>
<td>33</td>
</tr>
<tr>
<td>7 - 10 yrs</td>
<td>35</td>
<td>12</td>
</tr>
<tr>
<td>Above 10 yrs</td>
<td>30</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>275</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data 2014

Six telecommunication companies were sampled. In Table 7.1, the results show that 20% of the respondents were employees of MTN, 17.5% employees of Tigo and Airtel, 17% employees of Expresso, 16.7% employees of Vodafone and 11.3% employees of Glo Mobile.

In Table 7.1, it is also noticed that 51% of staff respondents for quantitative data collected are male and 49% female. There was thus a fair representation of both genders during the administration of staff questionnaire.
Table 7.1 establishes the point that 47% of staff respondents are between ages 26-35 years, 19% between ages 36-45 years, 15% between ages 18-25 and 46-55 years and just 4% above age 55. Thus, views captured by the administration of questionnaire on staff respondents cut across a wide spectrum of age.

Finally in Table 7.1, 33% of staff respondents have worked with their respective companies 1-4 years and 4-7 years, 12% between 7-10 years, and 11% under 1 year and above 10 years. Respondents have thus been associated with their respective companies for a reasonable length of time to comment on their company’s market orientation practices.

7.3 Confirmatory Factor Analysis

The objective in this section of the study is to retain the items that have high loadings to maintain face validity since the modification indices suggest that many items have more in common with each other than the specified model allows. Therefore, consistent with the extant literature and using Confirmatory Factor Analysis (CFA), offending items are sequentially deleted until the standardised loadings and the fit indices revealed that no improvement could be attained through item deletion. The measurement models were estimated using LISREL (8.5).

To establish model fit, the chi-square test with their degrees of freedom was determined at a range of less than 2 (Ulman, 2001) - less than 5 (Schumacher and Lomax, 2004). However, due to the sensitivity of chi-square test to sample size, other model fits indices namely adjusted goodness-of-fit index (AGFI) ≥ 0.95 (Joreskog and Sorbom, 1986), or ≥ 0.80 (Hu and Bentler, 1999), akaike information criterion (AIC), which considers the model with the lowest value as best fitting model (Hu and Bentler, 1999), root mean square error of approximation (RMSEA) ≤ 0.05 (good fit), 0.05-0.08 (reasonable fit), between 0.08 and 0.1 (mediocre fit) > 1 (poor fit) (Diamantopoulos and Siguaw, 2000) and comparative fit index (CFI) ≥ 0.95 (great) ≥ 0.90 (traditional) ≥ 0.80 (sometimes permissible) (Hu and Bentler, 1999) are utilised to supplement the chi-square test.

7.3.1 Market Orientation Customer Emphasis (MOCE): Initial Findings

Customer emphasis was measured using four items. All four items were subjected to CFA. The initial CFA results are shown in Table 7.2 which indicates that the model was poor fit to some of the data as suggested by some of the overall model fit indices ($\chi^2$/df = 7.26 (unacceptable because > 5), RMSEA = 0.15 (unacceptable because greater than 0.1), AIC =
30.53, AGFI= 0.87 (unacceptable because < 0.95), CFI=0.97 (acceptable because ≥0.95)) and as such needs to be modified. Modification indices suggested “setting the Error Covariance between MOCE1 and MOCE3 to zero”. The model was modified and re-run to obtain a much improved model fit ($\chi^2$/df= 0.02 (acceptable because < 5), RMSEA = 0.00 (acceptable < 0.1) AIC=18.02, AGFI= 1.0 (acceptable because >0.95) and CFI=1.00 (acceptable because >0.95).

Table 7.2: Summary of Initial Findings (CFA): Market Orientation Customer Emphasis

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOCE1</td>
<td>We encourage customer comments and complaints.</td>
<td>0.75</td>
<td>0.83</td>
<td>14.58</td>
<td>0.05</td>
</tr>
<tr>
<td>MOCE2</td>
<td>We are strongly committed to our customers.</td>
<td>0.87</td>
<td>0.81</td>
<td>15.08</td>
<td>0.04</td>
</tr>
<tr>
<td>MOCE3</td>
<td>We always look for ways to create value for our customers with our products/services.</td>
<td>0.86</td>
<td>0.93</td>
<td>17.70</td>
<td>0.05</td>
</tr>
<tr>
<td>MOCE4</td>
<td>We regularly measure our customer satisfaction.</td>
<td>0.68</td>
<td>0.66</td>
<td>11.82</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>7.26 (14.53/2)</td>
<td>0.15</td>
<td>30.53</td>
<td>0.87</td>
<td>0.97</td>
</tr>
<tr>
<td>Final</td>
<td>0.02 (0.02/1)</td>
<td>0.00</td>
<td>18.02</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.98

Source: Field data 2014

Table 7.2, also shows that the initial standardised loadings for MOCE1, MOCE 2, MOCE 3 and MOCE 4 are 0.75, 0.87, 0.86 and 0.68 respectively. However, when the model was modified and re-run, standardised loadings for MOCE1, MOCE 2, MOCE 3 and MOCE 4 became 0.83, 0.81, 0.93, and 0.66.

The final model revealed a better fit indexes and is, thus, favoured for two reasons:
1. the AIC for the final model (18.02) is lower than the AIC for the initial saturated model (30.53) and
2. the AGFI for the final model (1.00) is higher than the AGFI for the initial saturated model (0.87) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986)

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.2 Market Orientation Intelligence Generation (MOIG): Initial Findings

Intelligence generation was measured using seven items. An initial analysis of the inter-item correlation matrix revealed that intelligence generation coding items “MOIG4” and “MOIG5”, which translate as “We are slow to detect changes in our customers' product preferences” and “We are slow to detect fundamental changes in our industry (e.g. competitive, technological, regulatory changes)” respectively were negatively correlated with the other items in the scale. This was probably because of the negative wording of the items. They were subsequently omitted and the remaining five items were subjected to CFA. The initial CFA results are shown in Table 7.3, which indicate that the model was poor fit to some of the data as suggested by some of the overall model fit indices ($\chi^2$/df= 11.18 (unacceptable because > 5), RMSEA = 0.19 (unacceptable because greater >0.1), AIC=75.91, AGFI= 0.77 (unacceptable because < 0.95), CFI=0.75 (unacceptable because < 0.95)) and, as such needs to be modified. Modification indices suggested “deleting item MOIG6” and “setting the Error Covariance between MOIG2 and MOIG3 to zero”. The model was modified and re-run to obtain a much improved model fit ($\chi^2$/df= 1.09 (acceptable because < 5), RMSEA = 0.02 (acceptable because < 0.1) AIC=18.02, AGFI= 1.0 (acceptable because >0.95) CFI=0.97 (acceptable because >0.95)
Table 7.3: Summary of Initial Findings (CFA): Market Orientation Intelligence Generation

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOIG1</td>
<td>We meet with customers’ at least once a year to find out their future needs.</td>
<td>0.53</td>
<td>0.38</td>
<td>2.70</td>
<td>0.17</td>
</tr>
<tr>
<td>MOIG2</td>
<td>We regularly undertake in-house market research.</td>
<td>0.63</td>
<td>1.00</td>
<td>2.91</td>
<td>0.38</td>
</tr>
<tr>
<td>MOIG3</td>
<td>We assess our customers’ perception of the quality of our products once a year.</td>
<td>0.55</td>
<td>0.99</td>
<td>2.86</td>
<td>0.37</td>
</tr>
<tr>
<td>MOIG6</td>
<td>We regularly review the likely effect of changes in our business environment (e.g. regulation) on customer.</td>
<td></td>
<td>0.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOIG7</td>
<td>Intelligence on our competitors is generated independently by several departments.</td>
<td></td>
<td>0.41</td>
<td>0.21</td>
<td>2.26</td>
</tr>
<tr>
<td>MOIG4</td>
<td>We are slow to detect changes in our customers’ product preferences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOIG5</td>
<td>We are slow to detect fundamental changes in our industry (e.g. competitive, technological, regulatory changes).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ²/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>11.18(55.91/5)</td>
<td>0.19</td>
<td>75.91</td>
<td>0.77</td>
<td>0.75</td>
</tr>
<tr>
<td>Final</td>
<td>1.09(1.09/1)</td>
<td>0.02</td>
<td>19.09</td>
<td>0.98</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.87

Source: Field data 2014

Table 7.3, also shows that the initial standardised loadings for MOIG1, MOIG 2, MOIG 3 and MOIG 7 are 0.53, 0.63, 0.55 and 0.41 respectively. However, when the model was modified and re-run, MOIG1, MOIG 2, MOIG 3 and MOIG 7 became 0.38, 1.0, 0.99 and 0.21 respectively.

The final model revealed a better fit indexes and is favoured for two reasons:
1. the AIC for the final model (19.09) is lower than the AIC for the initial saturated model (75.91); and
2. the AGFI for the final model (0.98) is higher than the AGFI for the initial saturated model (0.77) and meets the model standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.3 Market Orientation Intelligence Dissemination (MOID): Initial Findings

Intelligence dissemination was measured using five items. An initial analysis of the inter-item correlation matrix revealed that intelligence dissemination coding item “MOID4”, which translates as “When one department finds out something important about competitors, it is slow to alert other departments” was negatively correlated with all other items in the scale. This was probably because of the negative wording of the item. The offending item was subsequently omitted and the remaining four items were subjected to CFA. The CFA results are shown in Table 7.4 which indicate that the model is a good fit to the data ($\chi^2$/df =2.87 (acceptable because < 5), CFI = 0.95 (acceptable because ≥0.95), RMSEA = 0.08 (acceptable because < 0.1), AGFI = 0.95 (acceptable because ≥0.95), and model AIC = 21.74). The model solution is considered proper because there are no out-of-range parameter estimates and standard error estimate are of similar magnitude.

Table 7.4: Summary of Initial Findings (CFA): Market Orientation Intelligence Dissemination

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item wording</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOID1</td>
<td>We have interdepartmental meetings at least once a quarter to discuss market trends and developments.</td>
<td>0.72</td>
<td>12.36</td>
<td>0.07</td>
</tr>
<tr>
<td>MOID2</td>
<td>Our marketing personnel spend time discussing customers' future needs with other functional departments.</td>
<td>0.86</td>
<td>14.90</td>
<td>0.06</td>
</tr>
<tr>
<td>MOID3</td>
<td>Customer satisfaction data on a regular basis are shared at all levels in this company.</td>
<td>0.69</td>
<td>11.72</td>
<td>0.07</td>
</tr>
<tr>
<td>MOID5</td>
<td>If anything important happens to a major customer or market the whole company knows about it in a short period of time.</td>
<td>0.32</td>
<td>4.90</td>
<td>0.08</td>
</tr>
<tr>
<td>MOID4</td>
<td>When one department finds out something important about competitors, it is slow to alert other departments.</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>2.87 (5.74/2)</td>
<td>0.08</td>
<td>21.74</td>
<td>0.95</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Composite Reliability 0.96

Source: Field data 2014

From Table 7.4, it is noticed that the standardised loadings for MOID1, MOID2, MOID3 and MOID5 provide figures of 0.72, 0.86, 0.69 and 0.32 respectively.

Therefore, the final model will form the basis for discussions in subsequent sections.
7.3.4 Market Orientation Intelligence Responsiveness (MOIR): Initial Findings

Intelligence responsiveness was measured using nine items. An initial analysis of the inter-item correlation matrix revealed that intelligence responsiveness coding items “MOIR1”, “MOIR3”, “MOIR6” and “MOIR7”, which translate as “It takes us forever to decide how to respond to our competitors’ price changes”; “For one reason or another we tend to ignore changes in our customers' products or service needs”; “Customers' complaints fall on deaf ears in this company” and “Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion” respectively were negatively correlated with the other items in the scale. This was probably because of the negative wording of the items. They were subsequently omitted and the remaining five items were subjected to CFA. The initial CFA results are shown in Table 7.5, which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df= 3.77 (acceptable because < 5), RMSEA = 0.10 (acceptable because ≤ 0.1), AIC=38.85, AGFI= 0.92 (unacceptable because < 0.95), CFI=0.95 (acceptable because ≥ 0.95)) and as such needed to be modified. Modification indices suggested “deleting item MOIR9”. The model was modified and re-run to obtain a much improved model fit ($\chi^2$/df= 1.33 (acceptable because < 5 and also even more less than initial $\chi^2$/df of 3.77), RMSEA = 0.03 (acceptable because < 0.1) AIC=18.65, AGFI= 0.98 (acceptable because >0.95) CFI=1.00 (acceptable because >0.95 and also greater than initial CFI of 0.95).
Table 7.5: Summary of Initial Findings (CFA): Market Orientation Intelligence Responsiveness (MOIR)

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOIR2</td>
<td>We periodically review our product development offers to ensure that they are in line with what customers want.</td>
<td>0.73</td>
<td>0.77</td>
<td>11.92</td>
<td>0.06</td>
</tr>
<tr>
<td>MOIR4</td>
<td>When we find that customers would like us to modify a product, the departments involved make a concerted effort to do so.</td>
<td>0.72</td>
<td>0.73</td>
<td>11.26</td>
<td>0.06</td>
</tr>
<tr>
<td>MOIR5</td>
<td>The activities of the different departments in this company are well coordinated.</td>
<td>0.60</td>
<td>0.55</td>
<td>8.59</td>
<td>0.07</td>
</tr>
<tr>
<td>MOIR8</td>
<td>If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.</td>
<td>0.44</td>
<td>0.41</td>
<td>6.25</td>
<td>0.07</td>
</tr>
<tr>
<td>MOIR9</td>
<td>Several departments get together periodically to plan a response to changes taking place in our business environment.</td>
<td>0.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOIR1</td>
<td>It takes us forever to decide how to respond to our competitors’ price changes.</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOIR3</td>
<td>For one reason or another we tend to ignore changes in our customers’ products or service needs.</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOIR6</td>
<td>Customers’ complaints fall on deaf ears in this company.</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOIR7</td>
<td>Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ²/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>3.77(18.85/5)</td>
<td>0.10</td>
<td>38.85</td>
<td>0.92</td>
<td>0.95</td>
</tr>
<tr>
<td>Final</td>
<td>1.33(2.65/2)</td>
<td>0.03</td>
<td>18.65</td>
<td>0.98</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.96

Source: Field data 2014

From Table 7.5, it is also realised that the initial standardised loadings for MOIR 2, MOIR 4, MOIR 5, and MOIR 8 are 0.73, 0.72, 0.60, and 0.44 respectively. However, when the model was modified and re-run, MOIR2, MOIR 4, MOIR 5 and MOIR 8 became 0.77, 0.73, 0.55 and 0.41 respectively.

The final model, revealed a better fit indexes and is favoured for two reasons:

1. the AIC for the final model (18.65) is lower than the AIC for the initial saturated model (38.85); and
2. the AGFI for the final model (0.98) is higher than the AGFI for the initial saturated model (0.92) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.

7.3.5 Top Management Emphasis (ASTM): Initial Findings
Top management emphasis was measured using four items. The four items were subjected to CFA. The CFA results are shown in Table 7.6, which indicate that the model was an acceptable fit to the data ($\chi^2$/df = 3.56 (acceptable because < 5), CFI = 0.98 (acceptable because >0.95), RMSEA = 0.09 (acceptable because < 0.1), AGFI = 0.94 (unacceptable because slightly < 0.95, and model AIC = 21.74)). The model solution is considered proper because there are no out-of-range parameter estimates except the AGFI, which is slightly out of range, and standard error estimates are of similar magnitude.

Table 7.6: Summary of Initial Findings (CFA): Top Management Emphasis (ASTM1)

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM1</td>
<td>In this company, top managers repeatedly tell employees that this company's survival depends on its adapting to market trends.</td>
<td>0.65</td>
<td>10.57</td>
<td>0.06</td>
</tr>
<tr>
<td>ASTM2</td>
<td>Top managers often tell employees to be sensitive to the activities of our competitors.</td>
<td>0.72</td>
<td>11.96</td>
<td>0.05</td>
</tr>
<tr>
<td>ASTM3</td>
<td>Top managers keep telling people around here that they must gear up now to meet customers’ future needs.</td>
<td>0.73</td>
<td>12.25</td>
<td>0.06</td>
</tr>
<tr>
<td>ASTM4</td>
<td>According to top managers here, serving customers is the most important thing our company does.</td>
<td>0.64</td>
<td>10.35</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>3.56(7.12/2)</td>
<td>0.09</td>
<td>23.12</td>
<td>0.94</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Composite Reliability 0.97

Source: Field data 2014
Table 7.6, also shows that the standardised loadings for ASTM1, ASTM 2, ASTM 3, and ASTM 4 are 0.65, 0.72, 0.73, and 0.64 respectively. Therefore, the final model will form the basis for discussions in subsequent sections.

7.3.6 Risk Aversion (ASRV): Initial Findings

Risk aversion was measured using five items. An initial analysis of inter-item correlation matrix revealed that customer performance coding item “ASRV4”, which translates as “Top managers around here like to implement plans only if they are very certain that they will work”, was poorly correlated with all other items in the scale. All five items were subjected to CFA. The initial CFA results as shown in Table 7.7 indicate that the model was poor fit to the data as suggested by some of the overall model fit indices (χ²/df= 16.56 (unacceptable because > 5), RMSEA = 0.20 (unacceptable because > 0.1), AIC=102.82, AGFI= 0.68 (unacceptable because < 0.95), CFI=0.69 (unacceptable because < 0.95)) and as such needs to be modified. Modification indices suggested “deleting item ASRV4” and “setting the Error Covariance between ASRV5 and ASRV2 to zero”. The model was modified and re-run to obtain a much improved model fit (χ²/df= 2.19 (acceptable because < 5), RMSEA = 0.06 (acceptable because < 0.1) AIC=20.19, AGFI= 0.96 (acceptable because >0.95) CFI=0.99 (acceptable because >0.95).
Table 7.7: Summary of Initial Findings (CFA): Risk Aversion (ASRV)

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASRV1</td>
<td>Top managers in this company believe that higher financial risks are worth taking for higher rewards.</td>
<td>1.00</td>
<td>0.95</td>
<td>11.90</td>
<td>0.08</td>
</tr>
<tr>
<td>ASRV2</td>
<td>Top managers in this company like to take big financial risks.</td>
<td>0.56</td>
<td>0.60</td>
<td>8.72</td>
<td>0.07</td>
</tr>
<tr>
<td>ASRV3</td>
<td>Top managers here encourage the development of innovating marketing strategies, knowing well that some will fail.</td>
<td>0.45</td>
<td>0.49</td>
<td>7.37</td>
<td>0.07</td>
</tr>
<tr>
<td>ASRV4</td>
<td>Top managers around here like to implement plans only if they are very certain that they will work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASRV5</td>
<td>Top managers in this business unit like to &quot;play it safe&quot;.</td>
<td>0.13</td>
<td>0.14</td>
<td>2.25</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ2/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>16.56(82.82/5)</td>
<td>0.20</td>
<td>102.82</td>
<td>0.68</td>
<td>0.69</td>
</tr>
<tr>
<td>Final</td>
<td>2.19(2.19/1)</td>
<td>0.06</td>
<td>20.19</td>
<td>0.96</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Composite Reliability 0.94

Source: Field data 2014

From Table 7.7, it is also realised that the initial standardised loadings for ASRV 1, ASRV 2, ASRV 3, ASRV 5 are 1.00, 0.56, 0.45, and 0.13 respectively. However, when the model was modified and re-run, ASRV 1, ASRV 2, ASRV 3, ASRV 5 became 0.96, 0.60, 0.49, and 0.14 respectively.

The final model, revealed a better fit indexes and is favoured for two reasons:

1. the AIC for the final model (20.19) is lower than the AIC for the initial saturated model (102.82) and
2. the AGFI for the final model (0.99) is higher than the AGFI for the initial saturated model (0.68) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.

7.3.7 Management Training (ASMT): Initial Findings

Management training was measured using four items. The coding items are “ASMT1”, “ASMT2”, “ASMT3” and “ASMT4”, which translate as “In our company, top managers receive management training on a regular basis”; “It is our company's requirement to
organise management training programmes for top managers”; “Our Company is reluctant about sending top managers into training programmes”; and “We don't have much training programme in our company” respectively. An initial analysis of inter-item correlation matrix revealed that both “ASMT1” and “ASMT2” correlated well with each other but negatively with both “ASMT3” and “ASMT4”. This is probably because of the negative wording of the items “ASMT3” and “ASMT4”. CFA results subsequently revealed a poor fit and unreliability of the measurement construct for management training.

### 7.3.8 Formal Marketing Education (ASFM): Initial Findings

Formal marketing education was measured using four items. The four items were subjected to CFA. The CFA results are shown in Table 7.8, which indicate that the model was a good fit to the data ($\chi^2$/df = 0.79 (acceptable because < 5), CFI = 1.00 (acceptable because > 0.95), RMSEA = 0.00 (acceptable because < 0.1), AGFI = 0.99 (acceptable because > 0.95), and model AIC = (17.57)). The model solution is considered proper because there are no out-of-range parameter estimates and standard error estimates are of similar magnitude.

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>R-sq</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASFM1</td>
<td>It is our company's requirement to have formal marketing education for the top managers.</td>
<td>0.60</td>
<td>10.37</td>
<td>0.06</td>
</tr>
<tr>
<td>ASFM2</td>
<td>Our managers in marketing all have formal marketing education.</td>
<td>0.97</td>
<td>17.92</td>
<td>0.05</td>
</tr>
<tr>
<td>ASFM3</td>
<td>Formal marketing education is the key requirement of the top managers in our marketing department for career movement.</td>
<td>0.79</td>
<td>14.06</td>
<td>0.06</td>
</tr>
<tr>
<td>ASFM4</td>
<td>We emphasise on experience rather than formal marketing education to promote our managers in the marketing department.</td>
<td>0.18</td>
<td>2.93</td>
<td>0.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Achieved Fit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMIN/DF ($\chi^2$/df)</td>
</tr>
<tr>
<td>Final</td>
</tr>
</tbody>
</table>

Source: Field data 2014
Table 7.8, also shows that loadings for ASFM 1, ASFM 2, ASFM 3, ASFM 4 are 0.60, 0.97, 0.79, and 0.18.

Therefore, the final model will form the basis for discussions in subsequent sections.

7.3.9 Centralisation (AOCC): Initial Findings  
Centralisation was measured using five items. The coding items are “AOCC1”, “AOCC2”, “AOCC3”, “AOCC4” and “AOCC5”, which translate as “Even small matters have to be referred to someone higher for a final decision”; “I have to ask my boss before I do almost anything”; “Any decision I make has to be by my boss’s approval”; “A person who wants to make his own decision would be quickly discouraged here” and “There can be little action taken here until a supervisor approves a decision” respectively. An initial analysis of inter-item correlation matrix revealed that, although the five items correlated positively with one another, they correlated negatively with most of the other questions on the questionnaire. This implies that the telecom employees disagreed with the fact that a strictly centralised system is practised. Perhaps the system is decentralised where employees are able to take decisions especially on small matters without the need of seeking approval from immediate bosses. CFA results subsequently revealed poor fit and unreliability of the measurement construct for centralisation.

7.3.10 Formalisation (AOCF): Initial Findings  
Formalisation was measured using four items. The coding items are “AOCF1”, “AOCF2”, “AOCF1” and “AOCF2”, which translate as “I feel that I am my own boss in most matters”; “A person can make his/her own decisions without checking with anybody else”; “The employees in this company are constantly checked on for rule violation”; and “People here feel as though they are constantly being watched to see that they obey the rules” respectively. An initial analysis of the inter-item correlation matrix revealed that both “AOCF1” and “AOCF2” correlated well with each other but poorly with both “AOCF3” and “AOCF4”. CFA results subsequently revealed a poor fit and unreliability of the measurement construct for formalisation.
7.3.11 Market Based Reward Systems (AOCM): Initial Findings

Market based reward system was measured using five items. The five items were subjected to CFA. The CFA results are shown in Table 7.9, which indicates that the model was a good fit to the data (CMIN/DF=2.69 (acceptable because < 5), $\chi^2$= 13.46, df=5, CFI = 0.97 (acceptable because >0.95), RMSEA = 0.07(acceptable because < 0.1), AGFI = 0.94 (acceptable because close to the requirement of being $\geq0.95$), and model AIC = 33.46). The model solution is considered proper because there are no out-of-range parameter estimates and standard error estimates are of similar magnitude.

Table 7.9: Summary of Initial Findings (CFA): Market Based Reward System

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Final</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Standardized Loadings</td>
<td>C.R. (t)</td>
</tr>
<tr>
<td>AOCM1</td>
<td>Employees from every department in this company get recognised for being sensitive to competitive moves.</td>
<td>0.51</td>
<td>8.08</td>
</tr>
<tr>
<td>AOCM2</td>
<td>Customer satisfaction assessments influence senior managers' pay in this company.</td>
<td>0.71</td>
<td>11.59</td>
</tr>
<tr>
<td>AOCM3</td>
<td>Formal rewards (e.g. pay rise, promotion) are forthcoming to anyone who consistently provides good market intelligence/information.</td>
<td>0.86</td>
<td>14.31</td>
</tr>
<tr>
<td>AOCM4</td>
<td>Salespeople's performance in this company is measured by the strength of relationships they build with customers.</td>
<td>0.48</td>
<td>7.57</td>
</tr>
<tr>
<td>AOCM5</td>
<td>Salespeople's monetary compensation is almost entirely based on their sales volume.</td>
<td>0.28</td>
<td>4.22</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>2.69 (13.46/5)</td>
<td>0.07</td>
<td>33.46</td>
<td>0.94</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Composite Reliability 0.96

Source: Field data 2014

In Table 7.9, standardised loadings for AOCM 1, AOCM 2, AOCM 3, ASCM 4 and ASCM 5 are 0.51, 0.71, 0.86, 0.48 and 0.28 respectively.

Therefore, the modified model will form the basis for our discussions in subsequent sections.
7.3.12 Interdepartmental Conflict (AIDI): Initial Findings

Interdepartmental Conflict was measured using six items. Initial analysis of inter-item correlation matrix revealed that interdepartmental conflict coding items “AIDI2” and “AIDI3”, which translate as “When members of several departments get together, tension frequently runs high”; and “People in one department generally dislike interaction with those from other departments” respectively were negatively correlated with the other items in the scale. This was probably because of the negative wording of the items. They were subsequently omitted and the remaining four items were subjected to CFA. The CFA results shown in Table 7.10 indicate that the model fits the sample data reasonably well as indicated by the selected overall goodness-of-fit statistics which indicate that the model was good fit to the data ($\chi^2$/df = 2.64 (acceptable because < 5), CFI = 0.98 (acceptable because >0.95), RMSEA = 0.07 (acceptable because < 0.1), AGFI = 0.95 (acceptable because ≥0.95), and model AIC = 21.28).

The model solution is considered proper because there are no out-of-range parameter estimates and standard error estimates are of similar magnitude.

Table 7.10: Summary of Initial Findings (CFA): Interdepartmental Conflict

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDI1</td>
<td>Most departments in this company get along well with each other.</td>
<td>0.55</td>
<td>8.77</td>
<td>0.06</td>
</tr>
<tr>
<td>AIDI4</td>
<td>Employees from different departments feel that the goals of their respective departments are in harmony with each other.</td>
<td>0.79</td>
<td>12.40</td>
<td>0.06</td>
</tr>
<tr>
<td>AIDI5</td>
<td>There is little or no interdepartmental conflict in this company.</td>
<td>0.81</td>
<td>12.62</td>
<td>0.07</td>
</tr>
<tr>
<td>AIDI6</td>
<td>Protecting one’s department turf is considered to be a way of life in this business unit.</td>
<td>0.13</td>
<td>1.95</td>
<td>0.07</td>
</tr>
<tr>
<td>AIDI2</td>
<td>When members of several departments get together, tensions frequently run high.</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>AIDI3</td>
<td>People in one department generally dislike interaction with those from other departments.</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>2.64(5.28/2)</td>
<td>0.07</td>
<td>21.28</td>
<td>0.95</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Composite Reliability  0.95

Source: Field data 2014
From Table 7.10, it is realised that standardised loadings for AID1, AIDI4, AIDI5, and AIDI6 are 0.55, 0.79, 0.81 and 0.13. Therefore, the modified model will form the basis for discussions in subsequent sections.

7.3.13 Interdepartmental Connectedness (AIDIC): Initial Findings

Interdepartmental connectedness was measured using five items. An initial analysis of the inter-item correlation matrix revealed that interdepartmental connectedness coding item “AIDIC2”, which translates as “There is ample opportunity for informal hall talk among individuals from different departments in this company” was poorly correlated with the other items in the scale. All five items were subjected to CFA. The initial CFA results are shown in Table 7.11, which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df=8.8 (unacceptable because > 5), RMSEA = 0.17 (unacceptable because > 0.1), AIC=64, AGFI= 0.82 (unacceptable because < 0.95), CFI=0.95 (acceptable because ≥ 0.95)) and, as such, needs to be modified.

The offending coding item “AIDIC2” was sequentially deleted and the model re-run to obtain a much improved model fit ($\chi^2$/df= 1.01 (acceptable because < 5), RMSEA = 0.00 (acceptable because < 0.1) AIC=18.02, AGFI= 0.98 (acceptable because >0.95) CFI=1.00 (acceptable because >0.95).
Table 7.11: Summary of Initial Findings (CFA): Interdepartmental Connectedness

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDIC1</td>
<td>In this company, regardless of their rank or position, it is easy to talk to anyone you need to talk to.</td>
<td>0.79</td>
<td>0.75</td>
<td>13.95</td>
<td>0.06</td>
</tr>
<tr>
<td>AIDIC2</td>
<td>There is ample opportunity for informal hall talk among individuals from different departments in this company.</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIDIC3</td>
<td>In this company, employees from different departments feel comfortable calling each other when the need arises.</td>
<td>0.85</td>
<td>0.85</td>
<td>16.68</td>
<td>0.05</td>
</tr>
<tr>
<td>AIDIC4</td>
<td>People in this company are quite accessible to those in other departments.</td>
<td>0.79</td>
<td>0.81</td>
<td>15.63</td>
<td>0.05</td>
</tr>
<tr>
<td>AIDIC5</td>
<td>Junior managers in my department can easily schedule meetings with junior managers in other departments.</td>
<td>0.78</td>
<td>0.79</td>
<td>14.92</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ2/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>8.8(44/5)</td>
<td>0.17</td>
<td>64.00</td>
<td>0.82</td>
<td>0.95</td>
</tr>
<tr>
<td>Final</td>
<td>1.01(2.02/2)</td>
<td>0.00</td>
<td>18.02</td>
<td>0.98</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.98

Source: Field data 2014

Table 7.11, shows that initial standardised loadings for AIDIC 1, AIDIC 3, AIDIC 4 and AIDIC 5 are 0.79, 0.67, 0.85, 0.79 and 0.78. However, when the model was modified and re-run AIDIC 1, AIDIC 3, AIDIC 4 and AIDIC 5 became 0.75, 0.85, 0.81 and 0.79 respectively. The final model revealed better fit indexes and is favoured for two reasons:
1. the AIC for the final model (18.02) is lower than the AIC for the initial saturated model (64) and
2. the AGFI for the final model (0.98) is higher than the AGFI for the initial saturated model (0.82) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom’s 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.14 Competition (AIEC): Initial Findings

Competition was measured using seven items. An initial analysis of the inter-item correlation matrix revealed that competition coding item “AIEC7”, which translates as “Our competitors are relatively weak”, was negatively correlated with the other items in the scale. This was probably because of the negative wording of the item. It was subsequently omitted and the remaining six items were subjected to CFA. The initial CFA results are shown in Table 7.12, which indicated that the model was a poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df=7.75 (unacceptable because > 5), RMSEA = 0.16 (unacceptable because greater > 0.1), AIC=93.76, AGFI= 0.82 (unacceptable because < 0.95), CFI=0.87 (unacceptable because < 0.95)) and, as such, needs to be modified. Modification indices suggested “deleting item AIEC6”, “setting the Error Covariance between AIEC4 and AIEC3 to zero” and “setting the Error Covariance between AIEC5 and AIEC2 to zero”. The model was modified and re-run to obtain a much improved model fit ($\chi^2$/df= 1.42 (acceptable because< 5), RMSEA = 0.04 (acceptable because < 0.1) AIC=28.26, AGFI= 0.97 (acceptable because >0.95), CFI=1.0 (acceptable because >0.95).
Table 7.12: Summary of Initial Findings (CFA): Competition

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIEC1</td>
<td>One hears of a new competitive move almost everyday.</td>
<td>0.61</td>
<td>0.61</td>
<td>10.58</td>
<td>0.06</td>
</tr>
<tr>
<td>AIEC2</td>
<td>We frequently collect marketing data on our competitors to help direct our marketing plans.</td>
<td>0.84</td>
<td>0.83</td>
<td>14.92</td>
<td>0.05</td>
</tr>
<tr>
<td>AIEC3</td>
<td>Our salespeople are instructed to monitor and report on competitor activity.</td>
<td>0.84</td>
<td>0.87</td>
<td>15.67</td>
<td>0.05</td>
</tr>
<tr>
<td>AIEC4</td>
<td>We respond rapidly to competitors’ actions.</td>
<td>0.69</td>
<td>0.73</td>
<td>12.25</td>
<td>0.06</td>
</tr>
<tr>
<td>AIEC5</td>
<td>There are many promotions war in our company.</td>
<td>0.37</td>
<td>0.40</td>
<td>6.30</td>
<td>0.06</td>
</tr>
<tr>
<td>AIEC6</td>
<td>Price competition is a hallmark of our company.</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIEC7</td>
<td>Our competitors are relatively weak.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Achieved Fit Indices**

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ2/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>7.75(69.76/9)</td>
<td>0.16</td>
<td>93.76</td>
<td>0.82</td>
<td>0.87</td>
</tr>
<tr>
<td>Final</td>
<td>1.42(4.26/3)</td>
<td>0.04</td>
<td>28.26</td>
<td>0.97</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Composite Reliability 0.98**

Source: Field data 2014

Table 7.12, shows that initial standardised loadings for AIEC 1, AIEC 2, AIEC 3, AIEC 4, AIEC 5 and AIEC 6 are 0.61, 0.84, 0.84, 0.69, 0.37, and 0.27. However, when the model was modified and re-run AIEC 1, AIEC 2, AIEC 3, AIEC 4, and AIEC 5 became 0.61, 0.83, 0.87, 0.73, and 0.40, respectively.

The final model, revealed a better fit indexes and is favoured for two reasons:
1. the AIC for the final model (28.26) is lower than the AIC for the initial saturated model (93.76) and
2. the AGFI for the final model (0.97) is higher than the AGFI for the initial saturated model (0.82) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.15 Technology (AIET): Initial Findings

Technology was measured using five items. An initial analysis of the inter-item correlation matrix revealed that technology coding item “AIET5”, which translates as “It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years” was negatively, correlated with the other items in the scale. This was probably because of the negative wording of the item. It was subsequently omitted and the remaining four items were subjected to CFA. The CFA results shown in Table 7.13 indicate that the model fit the sample data reasonably well as indicated by the selected overall goodness-of-fit statistics which indicated that the model was good fit to the data ($\chi^2$/df =1.69 (acceptable because < 5), CFI = 1.00 (acceptable because >0.95), RMSEA = 0.05 (acceptable because < 0.1), AGFI = 0.97(acceptable because >0.95), and model AIC = 19.37). The model solution is considered proper because there are no out-of-range parameter estimates and standard error estimates are of similar magnitude.

Table 7.13: Summary of Initial Findings (CFA): Technology

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIET1</td>
<td>The technology in our company is changing rapidly.</td>
<td>0.86</td>
<td>16.89</td>
<td>0.05</td>
</tr>
<tr>
<td>AIET2</td>
<td>Technology changes provide big opportunities in our company.</td>
<td>0.92</td>
<td>18.60</td>
<td>0.04</td>
</tr>
<tr>
<td>AIET3</td>
<td>A large number of new product ideas have been made possible through technological breakthroughs in our company.</td>
<td>0.75</td>
<td>14.01</td>
<td>0.05</td>
</tr>
<tr>
<td>AIET4</td>
<td>Technological developments in our company are major.</td>
<td>0.22</td>
<td>3.55</td>
<td>0.07</td>
</tr>
<tr>
<td>AIET5</td>
<td>It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years.</td>
<td>_</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final</td>
<td>1.69(3.37/2)</td>
<td>0.05</td>
<td>19.37</td>
<td>0.97</td>
</tr>
</tbody>
</table>

Composite Reliability 0.97

Source: Field data 2014

In Table 7.13, standardised loadings for AIET1, AIET2, AIET3, AIET4 are 0.86, 0.92, 0.75 and 0.22 respectively.

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.16 Market Turbulence (AIEM): Initial Findings

Market turbulence was measured using five items. An initial analysis of inter-item correlation matrix revealed that market turbulence coding item “AIEM2”, which translates as “Our customers tend to look for new products all the time”, was poorly correlated with the other items in the scale. All five items were subjected to CFA. The initial CFA results are shown in Table 7.14 which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df= 3.63 (acceptable because < 5), RMSEA = 0.10 (acceptable because $\leq$0.1), AIC=38.16, AGFI= 0.92 (unacceptable because < 0.95), CFI=0.93 (unacceptable because < 0.95)) and as such needs to be modified. The offending coding item “AIEM2” was sequentially deleted and the model re-run to obtain a much improved model fit ($\chi^2$/df= 0.96 (acceptable because < 5 and lower than initial $\chi^2$/df of 3.63), RMSEA = 0.00 (acceptable because< 0.1) AIC=17.93, AGFI= 0.98 (acceptable because >0.95) and CFI=1.00 (acceptable because >0.95).

Table 7.14: Summary of Initial Findings (CFA): Market Turbulence

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIEM1</td>
<td>In our kind of business, customers' product preferences changes quite a bit over time.</td>
<td>0.47</td>
<td>0.44</td>
<td>6.46</td>
<td>0.06</td>
</tr>
<tr>
<td>AIEM2</td>
<td>Our customers tend to look for new products all the time.</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIEM3</td>
<td>We are witnessing demand for our products and services from customers who have never bought them before.</td>
<td>0.76</td>
<td>0.75</td>
<td>10.70</td>
<td>0.06</td>
</tr>
<tr>
<td>AIEM4</td>
<td>Sometimes our customers are price sensitive, but on other occasions, price is relatively unimportant.</td>
<td>0.56</td>
<td>0.54</td>
<td>7.90</td>
<td>0.06</td>
</tr>
<tr>
<td>AIEM5</td>
<td>We cater to many of the same customers that we used to in the past.</td>
<td>0.58</td>
<td>0.62</td>
<td>9.15</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>3.63(18.16/5)</td>
<td>0.10</td>
<td>38.16</td>
<td>0.92</td>
<td>0.93</td>
</tr>
<tr>
<td>Final</td>
<td>0.96(1.93/2)</td>
<td>0.00</td>
<td>17.93</td>
<td>0.98</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.95

Source: Field data 2014
From Table 7.14, it is also realized that the initial standardised loadings for AIEM1, AIEM 2, AIEM 3, AIEM 4, and AIEM 5 are 0.47, 0.48, 0.76, 0.56, and 0.58 respectively. However, when the model was modified and re-run the standardised loadings AIEM1, AIEM 3, AIEM 4, and AIEM 5 became 0.44, 0.75, 0.54, and 0.62 respectively.

The final model revealed a better fit indexes and is favoured for two reasons:
1. the AIC for the final model (17.93) is lower than the AIC for the initial saturated model (38.16) and
2. the AGFI for the final model (0.98) is higher than the AGFI for the initial saturated model (0.92) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.

7.3.17 Employee Commitment (ACEE): Initial Findings

Employee commitment was measured using five items. An initial analysis of the inter-item correlation matrix revealed that employee commitment coding item “ACEE4”, which translates as “Our employees have a lot of commitment to this company”, was poorly correlated with the other items in the scale. All five items were subjected to CFA. The initial CFA results are shown in Table 7.15, which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df= 10.30 (unacceptable because > 5), RMSEA = 0.18 (unacceptable because greater > 0.1), AIC=71.52, AGFI= 0.79 (unacceptable because < 0.95), CFI=0.85 (unacceptable because < 0.95)) and, as such, needs to be modified. The offending coding item “ACEE4” was sequentially deleted and model re-run to obtain a much improved model fit ($\chi^2$/df= 0.16 (acceptable because < 5), RMSEA = 0.00 (acceptable because < 0.1) AIC=16.33, AGFI= 1.0 (acceptable because >0.95) CFI=1.0 (acceptable because >0.95).
Table 7.15: Summary of Initial Findings (CFA): Employee Commitment

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEE1</td>
<td>Employees of this company would be happy to make personal sacrifices if it was important for the company's wellbeing.</td>
<td>0.69</td>
<td>0.72</td>
<td>11.89</td>
<td>0.06</td>
</tr>
<tr>
<td>ACEE2</td>
<td>The bonds between this company and its employees are strong.</td>
<td>0.46</td>
<td>0.43</td>
<td>6.63</td>
<td>0.07</td>
</tr>
<tr>
<td>ACEE3</td>
<td>In general employees are proud to work for this company.</td>
<td>0.86</td>
<td>0.82</td>
<td>13.68</td>
<td>0.06</td>
</tr>
<tr>
<td>ACEE4</td>
<td>Our employees have a lot of commitment to this company.</td>
<td>0.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACEE5</td>
<td>Employees feel as though their future is intimately linked to that of this organization.</td>
<td>0.59</td>
<td>0.63</td>
<td>10.37</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ²/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>10.3(51.52/5)</td>
<td>0.18</td>
<td>71.52</td>
<td>0.79</td>
<td>0.85</td>
</tr>
<tr>
<td>Final</td>
<td>0.16(0.33/2)</td>
<td>0.00</td>
<td>16.33</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.96

Source: Field data 2014

From Table 7.15, it is also realised that the initial standardised loadings for ACEE 1, ACEE 2, ACEE 3, ACEE 4, and ACEE 5 are 0.69, 0.46, 0.86, 0.46, and 0.59 respectively. However, when the model was modified and re-run the standardised loadings ACEE 1, ACEE 2, ACEE 3, and ACEE 5 became 0.72, 0.43, 0.82 and 0.63 respectively.

The final model revealed a better fit indexes and is favoured for two reasons:
1. the AIC for the final model (16.33) is lower than the AIC for the initial saturated model (71.52) and
2. the AGFI for the final model (1.00) is higher than the AGFI for the initial saturated model (0.85) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.18 Esprit de Corps (ACEEd): Initial Findings

Esprit de corps was measured using five items. An initial analysis of the inter-item correlation matrix revealed that esprit de corps coding item “ACEEd4”, which translates as “People in this company view themselves as independent individuals who have to tolerate others around them”, was poorly correlated with the other items in the scale. All five items were subjected to CFA. The initial CFA results are shown in Table 7.16 which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices (χ²/df= 11.98 (unacceptable because > 5), RMSEA = 0.20 (unacceptable because greater > 0.1), AIC=79.91, AGFI= 0.76 (unacceptable because < 0.95), CFI=0.93 (unacceptable because < 0.95)) and, as such, needs to be modified. Modification indices suggested “deleting item ACEEd4” and “setting the Error Covariance between ACEEd3 and ACEEd1 to zero”. The model was modified and re-run to obtain a much improved model fit (χ²/df= 0.19 (acceptable because < 5), RMSEA = 0.00 (acceptable because < 0.1), AIC=18.19, AGFI= 1.0 (acceptable because >0.95), CFI=1.0 (acceptable because >0.95)).

Table 7.16: Summary of Initial Findings (CFA): Esprit de Corps

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEEd1</td>
<td>People in this company are genuinely concerned about each other’s need and problems.</td>
<td>0.78</td>
<td>0.70</td>
<td>12.65</td>
<td>0.06</td>
</tr>
<tr>
<td>ACEEd2</td>
<td>Working for this company is like being a part of a big family.</td>
<td>0.88</td>
<td>0.92</td>
<td>19.03</td>
<td>0.05</td>
</tr>
<tr>
<td>ACEEd3</td>
<td>People in this company feel emotionally attached to each other’s needs.</td>
<td>0.88</td>
<td>0.82</td>
<td>15.93</td>
<td>0.06</td>
</tr>
<tr>
<td>ACEEd4</td>
<td>People in this company view themselves as independent individuals who have to tolerate others around them.</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACEEd5</td>
<td>A team spirit pervades all ranks in this business unit.</td>
<td>0.83</td>
<td>0.86</td>
<td>17.06</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ²/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>11.98(59.91/5)</td>
<td>0.20</td>
<td>79.91</td>
<td>0.76</td>
<td>0.93</td>
</tr>
<tr>
<td>Final</td>
<td>0.19(0.19/1)</td>
<td>0.00</td>
<td>18.19</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.98

Source: Field data 2014
From Table 7.16, it is also realised that the initial standardised loadings for ACEEd 1, ACEEd 2, ACEEd 3, ACEEd 4, and ACEEd 5 are 0.78, 0.88, 0.88, 0.04, and 0.83 respectively. However, when the model was modified and re-run the standardised loadings ACEEd 1, ACEEd 2, ACEEd 3, and ACEEd 5 became 0.70, 0.92, 0.82 and 0.86 respectively.

The final model revealed a better fit indexes and is favoured for two reasons:
1. the AIC for the final model (18.19) is lower than the AIC for the initial saturated model (79.91) and
2. the AGFI for the final model (1.00) is higher than the AGFI for the initial saturated model (0.76) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.

7.3.19 Customer Satisfaction (ACCS): Initial Findings
Customer satisfaction was measured using six items. An initial analysis of the inter-item correlation matrix revealed that customer satisfaction coding item “ACCS4” which translates as, “We hardly receive any complaints about our product”, was negatively correlated with the other items in the scale. This was probably because of the negative wording of the item. It was subsequently omitted and the remaining four items were subjected to CFA. The initial CFA results are shown in Table 7.17, which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df= 6.44 (unacceptable because > 5), RMSEA = 0.14 (unacceptable because greater > 0.1), AIC=52.24, AGFI= 0.87 (unacceptable because < 0.95), CFI=0.95 (acceptable because ≥ 0.95)) and as such needs to be modified. Modification indices suggests “deleting item ACCS5”. The model was modified and re-run to obtain a much improved model fit ($\chi^2$/df= 2.41 (acceptable because < 5), RMSEA = 0.07 (acceptable because < 0.1) AIC=20.81, AGFI= 0.96 (acceptable because >0.95) CFI=0.99 (acceptable because >0.95 and better than initial CFI of 0.95).
Table 7.17: Summary of Initial Findings (CFA): Customer Satisfaction

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wordings</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCS1</td>
<td>We have more loyal customers.</td>
<td>0.80</td>
<td>0.82</td>
<td>14.91</td>
<td>0.05</td>
</tr>
<tr>
<td>ACCS2</td>
<td>We often receive complimentary phone calls/letters from our customers.</td>
<td>0.70</td>
<td>0.73</td>
<td>12.92</td>
<td>0.05</td>
</tr>
<tr>
<td>ACCS3</td>
<td>Our trade partners always praise our product quality.</td>
<td>0.71</td>
<td>0.69</td>
<td>11.98</td>
<td>0.05</td>
</tr>
<tr>
<td>ACCS5</td>
<td>We generate new customers for our company on a regular basis.</td>
<td>0.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCS6</td>
<td>Customers of this company are happy with our products and prices.</td>
<td>0.71</td>
<td>0.67</td>
<td>11.46</td>
<td>0.04</td>
</tr>
<tr>
<td>ACCS4</td>
<td>We hardly receive any complaints about our product.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF (χ²/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>6.44(32.24/5)</td>
<td>0.14</td>
<td>52.24</td>
<td>0.87</td>
<td>0.95</td>
</tr>
<tr>
<td>Final</td>
<td>2.41(4.81/2)</td>
<td>0.07</td>
<td>20.81</td>
<td>0.96</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Composite Reliability 0.98

Source: Field data 2014

From Table 7.17, it is also realised that the initial standardised loadings for ACCS 1, ACCS 2, ACCS 3, ACCS5, and ACCS 6 are 0.80, 0.70, 0.71, 0.59, and 0.71 respectively. However, when the model was modified and re-run the standardised loadings ACCS1, ACCS2, ACCS3, and ACCS6 became 0.82, 0.73, 0.69 and 0.67 respectively.

The final model revealed a better fit indexes and is favoured for two reasons:
1. the AIC for the final model (20.81) is lower than the AIC for the initial saturated model (52.24) and
2. the AGFI for the final model (0.96) is higher than the AGFI for the initial saturated model (0.87) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom. 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.
### 7.3.20 Repeat Purchase (ACRC): Initial Findings

Repeat purchase was measured using four items. The four items were subjected to CFA. The CFA results shown in Table 7.18 indicate that the model fit the sample data reasonably well as indicated by the selected overall goodness-of-fit statistics ($\chi^2$/df = 0.40 (acceptable because < 5), CFI = 1.00 (acceptable because > 0.95), RMSEA = 0.00 (acceptable because < 0.1), AGFI = 0.99 (acceptable because > 0.95), and model AIC = 16.79)). The model solution is considered proper because there are no out-of-range parameter estimates and standard error estimates are of similar magnitude.

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wording</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRC1</td>
<td>We have more repeat purchase in our company.</td>
<td>0.82</td>
<td>15.37</td>
<td>0.05</td>
</tr>
<tr>
<td>ACRC2</td>
<td>If a customer buys from us for the first time they also buy a second time and so on.</td>
<td>0.88</td>
<td>16.86</td>
<td>0.05</td>
</tr>
<tr>
<td>ACRC3</td>
<td>We have more committed customers.</td>
<td>0.79</td>
<td>14.66</td>
<td>0.06</td>
</tr>
<tr>
<td>ACRC4</td>
<td>We often see repeat purchases by our customers.</td>
<td>0.13</td>
<td>2.04</td>
<td>0.06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Achieved Fit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMIN/DF ($\chi^2$/df)</td>
</tr>
<tr>
<td>Final</td>
</tr>
</tbody>
</table>

Source: Field data 2014

From Table 7.18, it is also realised that the standardised loadings for ACRC 1, ACRC 2, ACRC 3, and ACRC 4, are 0.82, 0.88, 0.79, and 0.13 respectively.

Therefore, the modified model will form the basis for discussions in subsequent sections.
7.3.21 Business Performance (ACBP): Initial Findings

Business performance was measured using seven items. An initial analysis of the inter-item correlation matrix revealed that business performance coding item “ACBP7”, which translates as “The ARPU of my company has improved”, was poorly correlated with the other items in the scale. All seven items were subjected to CFA. The initial CFA results are shown in Table 7.19, which indicate that the model was poor fit to the data as suggested by some of the overall model fit indices ($\chi^2$/df= 9.79 (unacceptable because > 5), RMSEA = 0.18 (unacceptable because greater > 0.1), AIC=165.06, AGFI=0.75 (unacceptable because < 0.95), CFI=0.93 (unacceptable because < 0.95)) and, as such, needs to be modified. Modification indices suggested “deleting item ACBP7” and “setting the Error Covariance between ACBP3 and ACBP2 to zero”, “setting the Error Covariance between ACBP6 and ACBP3 to zero” and “setting the Error Covariance between ACBP6 and ACBP5 to zero”. The model was modified and re-run to obtain a much improved model fit ($\chi^2$/df= 1.32 (acceptable because < 5), RMSEA = 0.03 (acceptable because < 0.1) AIC=37.89, AGFI=0.97 (acceptable because >0.95) CFI=1.00 (acceptable because >0.95).

Table 7.19: Summary of Initial Findings (CFA): Business Performance (ACBP)

<table>
<thead>
<tr>
<th>Coding</th>
<th>Item Wordings</th>
<th>Initial Standardized Loadings</th>
<th>Final Standardized Loadings</th>
<th>C.R. (t)</th>
<th>Std. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBP1</td>
<td>The return on investment of our company has improved.</td>
<td>0.75</td>
<td>0.81</td>
<td>16.02</td>
<td>0.05</td>
</tr>
<tr>
<td>ACBP2</td>
<td>We have remarkable subscriber growth in our company.</td>
<td>0.88</td>
<td>0.82</td>
<td>16.39</td>
<td>0.06</td>
</tr>
<tr>
<td>ACBP3</td>
<td>The market share of this company has gone up.</td>
<td>0.91</td>
<td>0.84</td>
<td>16.84</td>
<td>0.06</td>
</tr>
<tr>
<td>ACBP4</td>
<td>The sales volume has increased</td>
<td>0.86</td>
<td>0.90</td>
<td>18.95</td>
<td>0.05</td>
</tr>
<tr>
<td>ACBP5</td>
<td>The revenue of our company has increased.</td>
<td>0.91</td>
<td>0.91</td>
<td>19.34</td>
<td>0.05</td>
</tr>
<tr>
<td>ACBP6</td>
<td>The quality of our products has improved.</td>
<td>0.69</td>
<td>0.71</td>
<td>12.93</td>
<td>0.05</td>
</tr>
<tr>
<td>ACBP7</td>
<td>The ARPU of my company has improved.</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Achieved Fit Indices

<table>
<thead>
<tr>
<th></th>
<th>CMIN/DF ($\chi^2$/df)</th>
<th>RMSEA</th>
<th>Model AIC</th>
<th>AGFI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>9.79 (137.06/14)</td>
<td>0.18</td>
<td>165.06</td>
<td>0.75</td>
<td>0.93</td>
</tr>
<tr>
<td>Final</td>
<td>1.32 (7.89/6)</td>
<td>0.03</td>
<td>37.89</td>
<td>0.97</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Composite Reliability 0.98

Source: Field data 2014
From Table 7.19, it is also noticed that the initial standardised loadings for ACBP1, ACBP2, ACBP3, ACBP 4, and ACBP 5, and ACBP6 are 0.81, 0.82, 0.84, 0.90, 0.91, and 0.71 respectively. However, when the model was modified and re-run the standardised loadings ACBP 1, ACBP2, ACBP3, ACBP 4, and ACBP5, ACBP6 became 0.81, 0.82, 0.84, 0.90, 0.91 and 0.71 respectively.

The final model revealed a better fit indexes and is favoured for two reasons:

1. the AIC for the final model (37.89) is lower than the AIC for the initial saturated model (165.06) and
2. the AGFI for the final model (0.97) is higher than the AGFI for the initial saturated model (0.75) and meets the required standard of being greater than 0.95 (Joreskog and Sorbom, 1986).

Therefore, the modified model will form the basis for discussions in subsequent sections.

7.3.22 Summary of Measurement Model Fit Statistics

The fit indices for each of the eighteen remaining measure constructs out of the twenty-one on the questionnaire have been summarised and presented in Table 7.20. The composite reliability scores for the construct measures were found to be as low as 0.87 for intelligence generation, and as high as 0.98 for customer emphasis, interdepartmental connectedness, competition, esprit de corps, customer satisfaction and business performance. All measures have acceptable level of model fitness.
Table 7.20: Summary of Measurement Model Fit Statistics

<table>
<thead>
<tr>
<th>Measurement Models</th>
<th>Overall Model Fit</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CMIN/DF</td>
<td>RMSEA</td>
</tr>
<tr>
<td>1. Customer Emphasis</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>2. Intelligence Generation</td>
<td>1.09</td>
<td>0.02</td>
</tr>
<tr>
<td>3. Intelligence Dissemination</td>
<td>2.87</td>
<td>0.08</td>
</tr>
<tr>
<td>4. Intelligence Responsiveness</td>
<td>1.33</td>
<td>0.03</td>
</tr>
<tr>
<td>5. Top Management Emphasis</td>
<td>3.56</td>
<td>0.09</td>
</tr>
<tr>
<td>6. Risk Aversion</td>
<td>2.19</td>
<td>0.06</td>
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<tr>
<td>7. Formal Marketing Education</td>
<td>0.79</td>
<td>0.00</td>
</tr>
<tr>
<td>8. Market Based Reward System</td>
<td>2.69</td>
<td>0.07</td>
</tr>
<tr>
<td>9. Interdepartmental Harmony</td>
<td>2.64</td>
<td>0.07</td>
</tr>
<tr>
<td>10. Interdepartmental Connectedness</td>
<td>1.01</td>
<td>0.00</td>
</tr>
<tr>
<td>11. Competition</td>
<td>1.42</td>
<td>0.04</td>
</tr>
<tr>
<td>12. Technology</td>
<td>1.69</td>
<td>0.05</td>
</tr>
<tr>
<td>13. Market Turbulence</td>
<td>0.96</td>
<td>0.00</td>
</tr>
<tr>
<td>14. Employee Commitment</td>
<td>0.16</td>
<td>0.00</td>
</tr>
<tr>
<td>15. Esprit de Corps</td>
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<tr>
<td>16. Customer Satisfaction</td>
<td>2.41</td>
<td>0.07</td>
</tr>
<tr>
<td>17. Repeat Purchase</td>
<td>0.40</td>
<td>0.00</td>
</tr>
<tr>
<td>18. Business Performance</td>
<td>1.32</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Source: Field data 2014

The summarised results show that the eighteen remaining measurement constructs achieve the required minimum model fitness for confirmatory factor analysis.

7.3.23 Face Validity

The scales adopted possess internal consistency as indicated by the high level of composite reliability (Gerbing and Anderson, 1988). Summaries of the composite reliability of the eighteen measurements constructs are shown in Table 7.20. These confirm the face and content validity of the measurement questionnaire.

7.3.24 Convergent Validity

To establish the convergent validity, the specific construct items should share a high proportion of variances in common. In this research, convergent validity is indicated by:

1. All factor loadings are significant (Tables 7.2-7.19).
2. The relatively high average variances extracted (AVE). From Table 7.21, it is noticed that the minimum average variance extracted (AVE) is 0.68 for intelligence generation and a maximum of 0.93 for business performance and customer emphasis.
3. Composite reliability (CR) is higher than 0.80 as summarised in Table 7.20 with the minimum being 0.87 for intelligence generation and the maximum being 0.98 for customer emphasis, interdepartmental connectedness, competition, espirit de corps, customer satisfaction, and business performance which provide evidence in support of the measure’s reliability. Furthermore, from Table 7.21, it is also noticeable that the correlation between the indicators is high, which is an evidence of internal consistency, and hence, the constructs unidimensionality (Gerbing and Anderson, 1988).

7.3.25 Discriminant Validity

It is important to establish that each construct is distinct from other constructs and captures some phenomena other measures do not. Discriminant validity is assessed by comparing the shared variance (squared correlation) between each pair of constructs against the minimum of the AVEs for these two constructs (Fornell and Larcker, 1981). In this study, the discriminant validity is established by the fact that all variances extracted estimates (AVE) are larger than the square of each of the interconstruct correlation estimates shown in Table 7.21. This means the indicators have more in common with the construct they are associated with than they do with other constructs. Therefore, the eighteen-construct model demonstrates discriminant validity.
Table 7.21: Means, Standard Deviations, Average Variance Extracted and Correlation Matrix
(Note: Bold faces on diagonal are Average Variance Extracted)

<table>
<thead>
<tr>
<th>Measurement Models</th>
<th>Mean</th>
<th>S.D</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>9</th>
<th>10</th>
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<th>12</th>
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<th>14</th>
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<th>17</th>
<th>18</th>
<th>19</th>
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<tbody>
<tr>
<td>1. Customer Emphasis</td>
<td>4.37</td>
<td>0.72</td>
<td>0.93</td>
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<td>2. Intelligence Generation</td>
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<td>3. Intelligence Dissemination</td>
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<td>5. Top Management Emphasis</td>
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<td>6. Risk Aversion</td>
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<td>7. Formal Marketing Education</td>
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<td>0.73</td>
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<td>13. Market Turbulence</td>
<td>3.58</td>
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<td>0.74</td>
<td>0.43**</td>
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<td>0.58**</td>
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<td>15. Espirit de Corps</td>
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<td>0.36**</td>
<td>0.35**</td>
<td>0.56**</td>
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<td>0.64**</td>
<td>0.92</td>
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<tr>
<td>16. Customer Satisfaction</td>
<td>3.61</td>
<td>0.73</td>
<td>0.34**</td>
<td>0.38**</td>
<td>0.53**</td>
<td>0.43**</td>
<td>0.47**</td>
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<td>0.45**</td>
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<td>0.46**</td>
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<td>0.59**</td>
<td>0.69**</td>
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<tr>
<td>17. Repeat Purchase</td>
<td>3.51</td>
<td>0.70</td>
<td>0.21**</td>
<td>0.30**</td>
<td>0.26**</td>
<td>0.36**</td>
<td>0.34**</td>
<td>0.19**</td>
<td>0.19**</td>
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<td>0.21**</td>
<td>0.46**</td>
<td>0.42**</td>
<td>0.34**</td>
<td>0.43**</td>
<td>0.37**</td>
<td>0.41**</td>
<td>0.68**</td>
<td>0.90</td>
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<tr>
<td>18. Business Performance</td>
<td>3.75</td>
<td>0.86</td>
<td>0.40**</td>
<td>0.37**</td>
<td>0.52**</td>
<td>0.36**</td>
<td>0.49**</td>
<td>0.38**</td>
<td>0.38**</td>
<td>0.42**</td>
<td>0.41**</td>
<td>0.64**</td>
<td>0.53**</td>
<td>0.58**</td>
<td>0.62**</td>
<td>0.50**</td>
<td>0.59**</td>
<td>0.74**</td>
<td>0.64**</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Note: **Significant at 0.01 level; *Significant at p<0.05 level, N=275
Source: Field data 2014
7.3.26 Nomological Validity

It is important to establish that the correlations between the constructs in the measurement model (Table 7.21) make sense. In the research, the nomological validity is established by the fact that all interconstruct correlations are positive and significant. Hence the eighteen-construct model demonstrates nomological validity.

7.3.27 Summary of Results

Once face validity, convergent validity, discriminant validity and nomological validity have been met, CFA results suggest that the measures are reliable and valid (Fornell and Larcker, 1981; Gerbing and Anderson, 1988).

7.4 Structural Equation Modelling Hypothesis Testing

This section of the analysis examines the relationships among the antecedents, dimensions and consequence of marketing orientation and seeks to test the hypotheses formulated. The proposed models are estimated using LISREL (8.5).

7.4.1 Extent of Practice of Market Orientation

H5: Ghana’s mobile telecommunication operators exhibit the elements of market orientation of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness.

The model was good fit to the data (CMIN/DF=2.55, $\chi^2=254.50$, df=100, CFI = 0.89, RMSEA = 0.07, AGFI = 0.86, and model AIC = 326.50). The results reveal that mobile telecommunications operators significantly practised market orientation dimensions of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness.

To examine whether Ghana’s mobile telecommunications operators exhibit the elements of market orientation of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness, a second-order factor analysis model was built linking the four dimensions to market orientation as shown in Figure 7.1 that consists of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness.
Comparatively, the most evident of the four dimensions practised by the telecommunications companies is customer emphasis. This is seen in Table 7.22, which explains about 67% (that is, the square of the regression weight of 0.82 times 100%) of the variance in market orientation.

ii) Intelligence Dissemination

Intelligence dissemination followed customer emphasis as the second most significant element of market orientation practised by telecommunications companies. This is exemplified by the 62% (that is, the square of the regression of 0.79 times 100%) of the variance in market orientation obtained as shown in Table 7.22.

iii) Intelligence Responsiveness

The third most significant element of market orientation practised by telecommunications companies is intelligence responsiveness. It obtained 61% (that is, the square of the regression of 0.78% times 100%) of the variance of market orientation as shown in Table 7.22.
iv) **Intelligence Generation**

Intelligence generation was also another element of market orientation practised by mobile telecommunications operators even though it was the least among the elements with 56% (that is, the square of the regression of 0.75% times 100%) of the variance of market orientation as shown in Table 7.22.

Hence, from the preceding discussions, hypothesis 5 (H5) is supported in the present context.

### 7.4.2 Antecedents of Market Orientation

The first four hypotheses seek to examine whether senior management characteristics, interdepartmental dynamics, organisational systems and environmental factors are positively related to market orientation. To do so the proposed research model was tested and shown in Figure 7.2. The model fit was relatively acceptable (CMIN/DF=3.15, $\chi^2= 4198.68$, df=1332, CFI = 0.62, RMSEA = 0.08, AGFI = 0.60, and model AIC = 4504.68).

**Figure 7.2: Path Diagram for the Effects of the Antecedents of Market Orientation Showing Regression Weights**

![Diagram showing regression weights between various antecedents and market orientation.]

**Note:** Dotted lines mean path is not statistically significant

Source: Field work 2014
7.4.2.1 **H1:** There is a positive relationship between senior management characteristics (top management emphasis, risk aversion, formal marketing education and management training) and market orientation.

i. **Top Management Emphasis**
The results revealed a positive significant relationship between top management emphasis and market orientation. Specifically, about 17% (that is, the square of the regression weight of 0.41 times 100%) of the variance in market orientation is determined by top management emphasis as shown in Table 7.22.

ii. **Risk Aversion,**
The relationship between risk aversion and market orientation was not statistically significant as exemplified in the 0.00% (that is, the square of the regression of 0.01 times 100%) of the variance in market orientation as shown in Table 7.22.

iii. **Formal Marketing Education**
The relationship between formal marketing education and market orientation was not statistically significant as exemplified in the 2% (that is, the square of the regression of -0.13 times 100%) of the variance in market orientation shown in Table 7.22.

iv. **Management Training**
The CFA analysis revealed poor fit and unreliability of the measurement construct for management training and is therefore not included in the subsequent discussion.

Hence, hypothesis 1 (H1) is partially supported in the present context.

7.4.2.2 **H2:** There is a positive relationship between interdepartmental dynamics (connectedness and conflict) and market orientation.

i. **Interdepartmental Conflict**
The results reveal a non-significant positive relationship with interdepartmental conflict. Specifically, about 16% (that is, the square of the regression weight of 0.40 times 100%) of the variance in market orientation is determined by interdepartmental conflict as shown in Table 7.22.
ii. Interdepartmental Connectedness
Similarly, the results reveal a non-significant relationship between interdepartmental connectedness and market orientation. Specifically, about 6% (that is, the square of the regression weight of 0.25 times 100%) of the variance in market orientation is determined by interdepartmental connectedness as shown in Table 7.22.

Therefore, hypothesis 2 (H2) is not supported in the present context.

7.4.2.3 H3: There is a positive relationship between organizational system (reward systems, formalization, and centralization) and market orientation.

i Reward Systems
The results revealed a weak positive relationship between market based reward systems and market orientation. Specifically, less than 1% (that is, the square of the regression weight of 0.07 times 100%) of the variance in market orientation is explained by market based reward systems as shown in Table 7.22.

ii Formalization and Centralization
The CFA analysis revealed poor fit and unreliability of the measurement construct for formalisation and centralisation and are thus not included in the subsequent discussions.

Therefore, hypothesis 3 (H3) is not supported in the present context.

7.4.2.4 H4: There is a positive relationship between external environmental factors (market turbulence, competitive intensity and technological turbulence) and market orientation.

i Competitive Intensity
The results revealed a weak positive relationship between competition and market orientation. Specifically, less than 1% (that is, the square of the regression weight 0.02 times 100%) of the variance in market orientation is explained by competition as shown in Table 7.22.
ii  Technology
Similarly, a weak positive relationship was obtained between technology and market orientation. Specifically, just about 2% (that is, the square of the regression weight 0.13 times 100%) of the variance in market orientation is explained by technological turbulence as shown in Table 7.22.

iii  Market Turbulence
The results reveal a non-significant negative relationship between market turbulence and market orientation. Specifically, about 4% (That is the square of the regression weight of -0.21 times 100%) of the variance in market orientation is determined by market turbulence as shown in Table 7.22.

Therefore, hypothesis 4 (H4) is not supported in the present context.

7.4.3  Consequences of Market Orientation
The last three hypotheses seek to examine whether or not a relationship exists among market orientation and employee commitment, espirit de corps, customer satisfaction, repeat purchase and business performance. To do so the proposed research model was tested and shown in Figure 7.3. The model fit was relatively acceptable (CMIN/DF=3.75, χ²= 2462.10, df=656, CFI = 0.75, RMSEA = 0.09, AGFI = 0.64, and model AIC = 2632.10).
7.4.3.1 H6: There is a positive relationship between market orientation and employee consequence of commitment and esprit de corps.

- **Employee Commitment**
  The results revealed a significant positive relationship between combined market orientation (made up of customer emphasis, intelligence generation, dissemination and responsiveness) and employee commitment. Specifically, about 69% (that is, the square of the regression weight of 0.83 times 100%) of the variance in employee commitment is determined by market orientation as shown in Table 7.22.
ii  **Espirit de Corps**
Similarly, there exists a significant positive relationship between combined market orientation (made up of customer emphasis, intelligence generation, dissemination and responsiveness) and esprit de corps. Specifically, about 64% (that is, the square of the regression weight of 0.80 times 100%) of the variance in esprit de corps is determined by market orientation as shown in Table 7.22.

Therefore, hypothesis 6 (**H6**) is supported in the present context.

7.4.3.2  **H7**: There is a positive relationship between market orientation and customer consequences of customer satisfaction and customer repeat purchases.

i  **Customer Satisfaction**
The results revealed a significant positive relationship between combined market orientation (made up of customer emphasis, intelligence generation, dissemination and responsiveness) and customer satisfaction. Specifically, about 94% (that is, the square of the regression weight of 0.97 times 100%) of the variance in customer satisfaction is determined by market orientation as shown in Table 7.22.

ii  **Customer Repeat Purchase**
Similarly, there exists a significant positive relationship between combined market orientation (made up of customer emphasis, intelligence generation, dissemination and responsiveness) and customer repeat purchase. Specifically, about 74% (that is, the square of the regression weight of 0.86 times 100%) of the variance in customer repeat purchase is determined by market orientation as shown in Table 7.22.

Therefore, hypothesis 7 (**H7**) is supported in the present context.

7.4.3.3  **H8**: There is a positive relationship between market orientation and financial performance (ARPU, profitability, number of subscribers, growth of the subscriber base and market share).
The results revealed a significant positive relationship between combined market orientation (made up of customer focus, intelligence generation, dissemination and responsiveness) and combined financial performance (ARPU, profitability, numbr of subscribers, growth of subscriber base and market share). Specifically, about 67% (that is, the square of the regression weight of 0.82 times 100%) of the variance in business performance is determined by market orientation as shown in Table 7.22.

Therefore, hypothesis 8 (H8) is supported in the present context.

7.4.4 Summary of Hypotheses Test results
A summary of the hypothesis tests conducted and conclusions made is shown in Table 7.22.
Table 7.22: SEM Output for Hypothesized Relationships in the Proposed Model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Paths</th>
<th>SEM Output: Proposed Model</th>
<th>Results*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1:</strong> In Ghana’s mobile telecommunication industry, there is a positive relationship between senior management characteristics (top management emphasis, risk aversion, formal education and marketing training) and market orientation.</td>
<td>top management emphasis ➔ market orientation 0.41 0.13 2.69 0.17</td>
<td>Partially supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td>risk aversion ➔ market orientation 0.01 0.04 0.19 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>formal marketing education ➔ market orientation -0.13 0.08 -1.52 0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H2:</strong> In Ghana’s mobile telecommunication industry there is a positive relationship between interdepartmental dynamics (connectedness and conflict) and market orientation.</td>
<td>interdepartmental conflict ➔ market orientation 0.40 0.24 1.15 0.16</td>
<td>Not Supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td>interdepartmental connectedness ➔ market orientation 0.25 0.12 1.28 0.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H3:</strong> In Ghana’s mobile telecommunication industry, there is a positive relationship between organizational system (reward systems, formalization, and centralization) and market orientation.</td>
<td>market based reward systems ➔ market orientation 0.07 0.13 0.52 0.00</td>
<td>Not Supported</td>
<td></td>
</tr>
<tr>
<td><strong>H4:</strong> In Ghana’s mobile telecommunication industry, there is a positive relationship between environmental factors (market turbulence, competitive intensity and technological turbulence) and market orientation.</td>
<td>competition ➔ market orientation 0.02 0.13 0.11 0.00</td>
<td>Not Supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td>technology ➔ market orientation 0.13 0.06 1.3 0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>market turbulence ➔ market orientation -0.21 0.33 -0.89 0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H5:</strong> Ghana’s mobile telecommunication operators exhibit the elements of market orientation of customer emphasis, intelligence generation, dissemination and responsiveness</td>
<td>market orientation ➔ customer emphasis 0.82 0.05 10.79 0.67</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td>market orientation ➔ intelligence generation 0.75 0.07 6.71 0.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>market orientation ➔ intelligence dissemination 0.79 0.07 9.36 0.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>market orientation ➔ intelligence responsiveness 0.78 0.06 10.45 0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H6:</strong> In Ghana’s mobile telecommunication industry, there is a positive relationship between market orientation and employee consequence of commitment and esprit de corps</td>
<td>market orientation ➔ employee commitment 0.83 0.05 11.85 0.69</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td>market orientation ➔ esprit de corps 0.80 0.06 11.67 0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H7:</strong> In Ghana’s mobile telecommunication industry, there is a positive relationship between market orientation and customer consequences of customer satisfaction and customer repeat purchases</td>
<td>market orientation ➔ customer satisfaction 0.97 0.05 16.38 0.94</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td></td>
<td>market orientation ➔ customer repeat purchase 0.86 0.05 11.97 0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H8:</strong> In Ghana’s mobile telecommunication industry, there is a positive relationship between market orientation and financial performance (ARPU, profitability, number of subscribers, growth of the subscriber base and market share).</td>
<td>market orientation ➔ Business Performance 0.82 0.05 13.09 0.67</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

Results* supported at p<0.0
Figure 7.22 shows that H1 is partially supported, H2, H3, and H4 are not supported and H5, H6, H7 and H8 are supported.

7.5 Customer Background Information

Table 7.23: Background of Subscriber Respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobile Company</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTN</td>
<td>136</td>
<td>45.0</td>
</tr>
<tr>
<td>Vodafone</td>
<td>69</td>
<td>22.8</td>
</tr>
<tr>
<td>Tigo</td>
<td>42</td>
<td>13.9</td>
</tr>
<tr>
<td>Airtel</td>
<td>38</td>
<td>12.6</td>
</tr>
<tr>
<td>Glo Mobile</td>
<td>16</td>
<td>5.3</td>
</tr>
<tr>
<td>Expresso</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>302</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Gender of Customers

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>160</td>
<td>53</td>
</tr>
<tr>
<td>Female</td>
<td>142</td>
<td>47</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>302</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Age of Customer Respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>80</td>
<td>27</td>
</tr>
<tr>
<td>26-35</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>36-45</td>
<td>66</td>
<td>22</td>
</tr>
<tr>
<td>46-55</td>
<td>61</td>
<td>20</td>
</tr>
<tr>
<td>Above 55 yrs</td>
<td>35</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>302</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Duration with Network

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 yr</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>1 - 4 yrs</td>
<td>77</td>
<td>25</td>
</tr>
<tr>
<td>4 - 7 yrs</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>7 - 10 yrs</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>Above 10 yrs</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>302</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data 2014
The majority of the customer respondents as shown in table 7.23 are from MTN (45%). Others include Vodafone (22.8%), Tigo (13.9%), Airtel (12.6%), Glo Mobile (5.3%) and Expresso (0.4%) respectively which, to a largely, is a reflection of their market share.

Table 7.23, also shows that 53% of the customer respondents are male and 47% female. Customer respondents are thus drawn from both genders.

Table 7.23 further shows that 27% of staff respondents are between ages 18-25; 22% between 36-45years; 20% between ages 26-35 and 46-55 years; and 11% above 55years. Views thus expressed were representative of a wide category of ages.

Finally Table 7.23 shows that 30% of subscriber respondents have been with their network for between 4-7years; 25% between 1-4years; 17% under 1year; 15% between 7-10years; and 13% above 10years. Customer respondents have thus been associated with their network for a reasonable length of time to assess their operators' market orientation practices.

7.6 T. Test
This section of the study seeks to examine subscribers and operators views on market orientation in Ghana’s mobile telecommunication industry by means of a T Test to establish whether they differ or are similar. The study for this purpose hypothesises that:

7.6.1 H9: Industry ratings of market orientation will significantly differ between subscribers and providers of mobile telecommunication services.

A comparison of the industry ratings of market orientation practices between subscribers and providers of telecommunication services is shown in Table 7.24.
Table 7.24: Ratings of Market Orientation: Comparing Subscribers Versus Providers of Service

<table>
<thead>
<tr>
<th>Market Orientation items</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Orientation</td>
<td>Employee</td>
<td>275</td>
<td>3.84</td>
<td>0.57</td>
<td>14.15</td>
<td>0.00**</td>
</tr>
<tr>
<td></td>
<td>Customer</td>
<td>302</td>
<td>3.07</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Emphasis</td>
<td>Employee</td>
<td>275</td>
<td>4.37</td>
<td>0.72</td>
<td>15.04</td>
<td>0.00**</td>
</tr>
<tr>
<td></td>
<td>Customer</td>
<td>302</td>
<td>3.26</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence Generation</td>
<td>Employee</td>
<td>275</td>
<td>3.60</td>
<td>0.71</td>
<td>15.72</td>
<td>0.00**</td>
</tr>
<tr>
<td></td>
<td>Customer</td>
<td>302</td>
<td>2.60</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence Dissemination</td>
<td>Employee</td>
<td>275</td>
<td>3.59</td>
<td>0.85</td>
<td>8.26</td>
<td>0.00**</td>
</tr>
<tr>
<td></td>
<td>Customer</td>
<td>302</td>
<td>3.02</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligence Responsiveness</td>
<td>Employee</td>
<td>275</td>
<td>3.78</td>
<td>0.72</td>
<td>5.92</td>
<td>0.00**</td>
</tr>
<tr>
<td></td>
<td>Customer</td>
<td>302</td>
<td>3.39</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: **Significant at p<0.01 level
Source: Field data 2014

Market Orientation

From Table 7.24, it is noticed that a significant difference exists between providers and subscribers of mobile telecommunications services rating of market orientation (p<0.01). Specifically, a mean of 3.84 (Agree) was obtained for providers, which is significantly higher than a mean of 3.07 (Neutral) obtained for subscribers’ rating of market orientation.

Customer Emphasis

Table 7.24 shows that a significant difference also exists between providers and subscribers of mobile telecommunications services rating of customer emphasis (p<0.01). Specifically, a mean of 4.37 (strongly agree) was obtained for providers, which is significantly higher than a mean of 3.26 (Neutral) obtained for subscribers’ ratings of market orientation.
**Intelligence Generation**

Furthermore, from Table 7.24, a significant difference exists between providers and subscribers of mobile telecommunications services ratings of intelligence generation (p<0.01). Specifically, a mean of 3.60 (agree) was obtained for providers, which is significantly higher than a mean of 2.60 (disagree) obtained for subscribers’ ratings of market orientation.

**Intelligence Dissemination**

Again, a significant difference exists between providers and subscribers of mobile telecommunications services rating of intelligence dissemination (p<0.01). Specifically, a mean of 3.59 (agree) was obtained for providers that is significantly higher than a mean of 3.02 (neutral) obtained for subscriber’s ratings of market orientation as showed in Table 7.24.

**Intelligence Responsiveness**

Finally, a significant difference exists between providers and subscribers of mobile telecommunications services in their ratings of intelligence responsiveness (p<0.01). Specifically, a mean of 3.78 (agree) was obtained for providers, which is significantly higher than a mean of 3.39 (neutral) obtained for subscribers’ ratings of market orientation as portrayed in Table 7.24.

Table 7.24 thus shows that staff rated market orientation and all of its elements are higher than customers’ ratings thus establishing a significant difference in their perceptions of market orientation in Ghana’s mobile telecommunications industry.

Therefore, hypothesis 9 (H9) is supported in the present context.
7.7 Summary of the Chapter

This chapter provides an analysis and findings of quantitative data obtained by the administration of questionnaires to staff and subscribers of mobile telecommunications services in Ghana. It was undertaken in pursuance of the objective to establish quantitatively the extent of market orientation in Ghana’s mobile telecommunications industry and its influence on firm performance and also to test the hypotheses formulated for the study. In this regard, questionnaires that addressed questions on the antecedents of market orientation, components of market orientation and consequences of market orientation were administered to staff to test hypotheses H1, H2, H3, H4, H5, H6, H7 and H8. Questionnaires administered to subscribers sought to find out customers’ perspectives of the components of market orientation as practised by mobile telecommunications services providers. This was to enable a comparison of subscribers’ responses and staff’s responses to the components of market orientation; and to provide a basis for testing hypothesis H9. Overall, hypotheses H1 is partially supported, H2, H3, and H4 are not supported, while H5, H6, H7, H8 and H9 are fully supported.

The next chapter triangulates the qualitative and quantitative findings of the dimensions of market orientation obtained from staff, discusses staff quantitative findings, establishes the extent to which extant literature agrees with the findings, and subsequently develops an empirical model for market orientation for Ghana’s mobile telecommunications industry.
Reference


CHAPTER EIGHT
DISCUSSION OF FINDINGS

8.1 Introduction

This chapter comprises six sections with 8.1 serving as the introduction. Section 8.2 triangulates qualitative and quantitative findings of staff on the elements of market orientation. Section 8.3 presents a discussion of quantitative findings of the survey research conducted on the staff of the six mobile telecommunications companies in Ghana on the antecedents, dimensions and consequences of market orientation. The fourth section (8.4) compares operators and subscribers’ assessment of the elements of market orientation in Ghana’s mobile telecommunications industry. The fifth (8.5) section discusses the conceptual model proposed in Chapter Three with the empirical model developed in this chapter. The sixth and final section (8.6) provides a summary for the chapter. The consistency of findings in the various sections with extant literature is also discussed.

8.2 Triangulation

This section of the study compares quantitative and qualitative findings on the elements of market orientation obtained from staff of the mobile telecommunications companies to establish consistency or otherwise in their response and the extent to which the findings resonate with earlier studies.

8.2.1 Elements of Market Orientation

The elements of market orientation from extant literature consist of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness (Zebal and Goodwin, 2011; Lafferty and Hult, 2001). Qualitative and quantitative findings of these elements obtained from staff of mobile telecommunications companies are triangulated to establish whether they corroborate each other. The findings are also compared with existing literature.
8.2.1.1 Customer Emphasis

Qualitative findings obtained from the staff of mobile telecommunication companies through in-depth interviews indicate that operators of mobile telecommunications companies place emphasis on their customers. This is exemplified in the institution of various systems and structures focused on ensuring customer satisfaction, involvement of customers in their decision making as well as the deployment of various strategies and systems in engaging their customers. This engagement includes regular meetings, sometimes on weekly basis with customers to ascertain their needs and resolve their challenges. Furthermore, the establishment of call centres by almost all the mobile telecommunications operators to provide quick and immediate response to inquiries attest, not only to the importance they place on customers, but also the emphasis placed on customers.

Findings from the quantitative survey research on staff of the mobile telecommunication companies indicate that customer emphasis is practised by mobile telecommunication companies. Statistically, the study established customer emphasis as the most significant element of market orientation practised by the mobile telecommunications companies.

From both qualitative and quantitative findings, it is evident by responses from mobile telecommunications operators that they place emphasis on customers. This emphasis on customers, as corroborated by qualitative and quantitative findings, is consistent with existing literature that, for a company to be deemed as being market oriented, it must place emphasis on its customers. Variously stated, Shapiro (1988) intimates that companies must understand their customers; Ruekert (1992) states that companies must meet the needs of their customers; Kohli and Jaworski (1990) state that these needs of customers must be met not only now but in the future as well; Narver and Slater (1990) state that value must be created for the customers; and Deshpande et al. (1993) state that the needs of the customers must be placed first.

If firms in Ghana’s mobile telecommunications industry focus on their customers then, as suggested by Jaiyeoba, (2014), they should sufficiently understand their target customers and be able to create superior value for them.
8.2.1.2 Intelligence Generation

Qualitative findings obtained from in-depth interviews of senior officers in Ghana’s mobile telecommunications companies indicate that mobile telecommunications operators regularly generate intelligence on their customers. This they do by regularly collecting information on customers, and even sometimes on competitors by means such as marketing research and call centre operations. Some of these researches are undertaken by the operators themselves, and others they outsource to external research agencies. For some of these operators, intelligence generation is always ongoing, suggestive of the importance they attach to it.

Findings from quantitative survey research obtained from staff of mobile telecommunications operators also indicate that mobile telecommunications companies practise intelligence generation. Even though intelligence generation obtained the least score statistically among the other components of market orientation, figures obtained are significantly high enough to state that mobile telecommunications operators generate intelligence in the market place.

Quantitative findings substantiate qualitative findings that mobile telecommunications operators generate intelligence on their customers, except that the prominence given to the intelligence generation by respondents during the in-depth interview is not adequately reflected in the quantitative response obtained. Howbeit, it still is amply evident that mobile telecommunications operators generate intelligence on their customers. The generation of intelligence by companies in Ghana’s mobile telecommunication industry is also consistent with extant literature that marketing oriented companies generate intelligence on customers (Shapiro, 1988; Kohli and Jaworski, 1990; Narver and Slater, 1990; Ruekert, 1992; Deshpande et al. 1993). These various views are aptly summarized by Lafferty and Hult (2001), who indicate that all of these authors expect market oriented organizations to generate information on their customers. Furthermore, with the exception of Ruekert (1992) and Deshpande et al. (1993), they also agree that they need to generate information on their competitors, which is also practised by mobile telecommunications operators in Ghana.


8.2.1.3 Intelligence Dissemination

Qualitative information on intelligence dissemination obtained through in-depth interviews from staff of mobile telecommunications companies in Ghana indicate that mobile telecommunications companies practised intelligence dissemination by frequently sharing information on customers generated through interdepartmental meetings, memoranda, letters, inter-managerial meetings, as well as scheduled and unscheduled meetings. This dissemination of information on customers is considered so important that operators have scheduled weekly meetings to ensure that information is shared formally. The effective use of the intra-net also ensures that daily information is disseminated to the appropriate departments and agencies.

Findings from quantitative survey research data obtained from the staff of mobile telecommunications companies also clearly established the fact that mobile telecommunications companies in Ghana practise information dissemination. Statistically, besides customer emphasis, this was another very significant component of market orientation practised by mobile telecommunications operators.

Both qualitative and quantitative findings therefore corroborate each other to the effect that mobile telecommunications operators internally disseminate information they generate. Indeed, the significantly high statistical figure obtained quantitatively confirms the prominence respondents gave to this activity during the in-depth interview. The importance of intelligence dissemination as an element of market orientation, as practiced by mobile telecommunications firms in Ghana, is consistent with findings by Shapiro (1988), Kohli and Jaworski (1990), Narver and Slater (1990), Ruekert (1992) and Deshpande et al. (1993). As aptly stated by Wood and Bhuiyan (1993), by encouraging participation of all departments and personnel in the sharing of information, effective information dissemination occurs.
8.2.1.4 Intelligence Responsiveness

Qualitative data obtained from staff of mobile telecommunication companies attest to the fact that telecommunication companies in Ghana practised intelligence responsiveness. This, they do by taking the necessary action on information that is generated and disseminated. The speed of response, however, according to some of them, varied depending on the nature of the issue, urgency of the issue, resources required, and the overall impact on the activities of the organization. Respondents were, however, quick to add that, if the information disseminated requires a response, they will go to great length to ensure that appropriate action is taken within the shortest possible time.

Statistically, the findings from the quantitative survey research obtained from staff of mobile telecommunications companies indicate that mobile telecommunication companies in Ghana practise intelligence responsiveness, meaning they take the necessary action regarding information obtained from the market place.

Both qualitative and quantitative findings thus validate each other to the effect that mobile telecommunications operators in Ghana, ensure an appropriate response to customer information generated and disseminated. These findings of the intelligence responsiveness element of market orientation in Ghana’s mobile telecommunications industry is consistent with the findings of Shapiro (1988), Kohli and Jaworski, (1990), Narver and Slater (1990), and Ruekert (1992). Zebal and Goodwin (2011) aptly captures this by stating that responsiveness involves developing, designing, implementing, and altering products and services in response to customers’ current and future needs, which are what firms in Ghana’s mobile telecommunications industry do.

**Confirmation of Hypothesis 5, Objective 1 and Research Question 1.**

Based on qualitative and quantitative findings and supported by relevant literature it can be stated that mobile telecommunications companies in Ghana practise the elements of market orientation namely, customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness as shown in Figure 8.1 and are thus market oriented.
This supports hypothesis 5, which sought to establish the fact that operators in Ghana’s mobile telecommunications industry exhibit the elements of market orientation consisting of customer emphasis, intelligence generation, intelligence dissemination, and intelligence responsiveness.

Furthermore, it ensures the achievement of the first objective and provides answers to the first research question of the study, which sought to ascertain the elements of market orientation practised in Ghana’s mobile telecommunications industry.

Based on these findings, the following aspects of the conceptual model proposed in Chapter 4 (Figure 4.1) is confirmed by Figure 8.1. It depicts that mobile telecommunications firms in Ghana exhibit the market orientation elements of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness.

![Figure 8.1: Dimensions of Market Orientation](source: Fieldwork, 2014)

8.3 Discussion of Staff Quantitative Findings

This section of the study discusses findings from survey research conducted on staff of the six mobile telecommunications companies on the antecedents, dimensions and consequences of market orientation. The findings are then compared with previous studies to determine the extent to which they corroborate.

8.3.1 Market Orientation and Its Antecedents

Extant literature supports the notion that the extent of market orientation is determined by internal and external factors referred to as antecedents (Bunic, 2007; Raaij and Stoelhorst, 2008). Kohli and Jaworski’s (1993) assertion that the three main internal antecedents of
market orientation are senior management characteristics, interdepartmental dynamics and organizational systems is supported in literature (Bunic 2007, Zebal and Goodwin, 2011). Also recognized in literature as external antecedents of market orientation are competition (Pelham and Wilson, 1996; Zebal and Goodwin, 2011); market turbulence (Kohli and Jaworski, 1990; Jaworski and Kohli, 1993; Bunic 2007; Zebal and Goodwin, 2011); and technology (Jaworski and Kohli, 1993; Bunic, 2007). These factors are thus subjected to survey research on staff of mobile telecommunications companies to establish agreement or otherwise with literature.

8.3.1.1 Senior Management Characteristics

Senior management characteristics in literature are recognized as being made up of top management emphasis (Webster, 1988; Deshande et al., 1993; Jaworski and Kohli, 1993; Harris and Ogbonna, 2001), risk aversion (Jaworski and Kohli 1993; Chandler et al., 2000), management training (Ruekert, 1992; Liu and Davis, 1997; Horny and Cheng, 1998), and formal marketing education (Wang and Satow, 1994; Horng and Chen, 1998; Gronhaug, 2002;). Staff of mobile telecommunication operators responded to survey research on the factors of senior management characteristics acting as antecedents on market orientation.

Top Management Emphasis

The results from quantitative survey research revealed a positive significant relationship between top management emphasis and market orientation. Hence, the amount of emphasis top managers place on market orientation positively affects the overall market orientation of firms in Ghana’s mobile telecommunications industry. Thus, the greater top management emphasis on market orientation is, the greater the overall market orientation of the mobile telecommunications firms in Ghana.

The significant relationship between top management emphasis and overall market orientation is consistent with several findings (Jaworski and Kohli, 1993; Bhuian, 1998; Horng and Chen, 1998; Puledran et al., 2000; Winston and Dadzie, 2002; Malik and Naeem, 2009; Keelson, 2014; Mahmood, 2011). All replications have been consistent about this relationship (Bhuian, 1998; Kuada and Buatsi, 2005; Hammond et al., 2006;
Kirca et al., 2005) and the influence of top management traits on market orientation is fairly stable across diverse contexts.

This means that for firms in Ghana’s mobile telecommunication industry to be more market oriented, top management must always remind their employees through communication to be sensitive and responsive to customer needs. This must be augmented with the requisite support and commitment from top management for market oriented activities carried out within their firms. The study establishes that top management in Ghana’s mobile telecommunications industry, have a favourable attitude towards being market oriented and place emphasis on attaining it.

**Risk Aversion**

Statistically, from the structural equation analysis of quantitative research, no significant relationship was identified between risk aversion and overall market orientation of Ghana’s mobile telecommunications industry. This means that in Ghana’s mobile telecommunications industry, the extent of risk aversion, according to the findings, has virtually little effect on market orientation. This is consistent with various studies (Puledran et al., 2000; Zebal and Goodwin, 2011; Ghani and Mahmoud, 2011) who found no relationship between risk aversion and market orientation. It is, however, inconsistent with findings from other studies (Ansoff, 1984; Avlontis and Gounaris, 1999; Mahmoud, 2011; Akomea and Yeboah, 2011) who identified a negative relationship between risk aversion and market orientation.

**Formal Marketing Education**

Quantitative findings from structural equation analysis found no statistically significant relationship between formal marketing education and market orientation. This means that in Ghana’s mobile telecommunications industry, the extent of formal marketing education, according to the findings, has virtually little effect on market orientation. The quantitative findings that there is no significant relationship between formal marketing education and market orientation is inconsistent with the following findings (Horng and Chen 1998; Gronhaug, 2002; Malik and Naeem, 2009; Mahmoud, 2011) all of whom
identified a positive relationship between formal marketing education and overall market orientation.

**Confirmation of Hypothesis 2, Objective 3 and Research Question 3**

Based on these findings it can be stated that hypothesis 2 which states that there is a positive relationship between senior management characteristics and market orientation, is partially supported.

These findings contribute to the achievement of the third objective of the study and provides responses to the third research question which sought to critically evaluate (internal and external) the dimensions of market-oriented behaviour for mobile telecommunications service providers in Ghana. Internally, it can be stated that top management emphasis is the only senior management characteristics that has a positive relationship with market orientation.

Based on these findings, the following aspect of the conceptual model proposed in Chapter 4 (Figure 4.1), is confirmed by Figure 8.2. This depicts that in Ghana’s mobile telecommunications industry, top management emphasis is the only senior management characteristic that has a positive relationship with market orientation.

**Figure 8.2: Senior Management Characteristics and Market Orientation**

![Diagram](source: Fieldwork, 2014)

**8.3.1.2 Interdepartmental Dynamics**

Various studies (Levitt, 1960; Jaworski and Kohli, 1993; Harris and Piercy, 1998; Puledran et al., 2000) have established interdepartmental conflict and interdepartmental connectedness as the interdepartmental dynamics of market orientation. These, according to Malik and Naeem (2009), can be detrimental or beneficial respectively to market
orientation. They were thus included in the quantitative survey research conducted on the staff of mobile telecommunications operators in Ghana.

**Conflict**

The results revealed a non-significant negative relationship between interdepartmental conflict and market orientation. This indicates that, even though not profound, the existence of interdepartmental conflict does not engender market orientation in Ghana’s mobile telecommunications industry. Thus, in order to encourage market orientation, mobile telecommunications firms in Ghana must take steps to minimize any kind of conflicts in their organizations, and if they do face interdepartmental conflicts, they must take corrective measures in order to minimize and avoid conflicts. This, according to Jaworski and Kohli (1993), can be achieved by developing emotional attachments among the employees, promote cross-departmental activities, and set up common goals for everyone.

The quantitative findings regarding the non-significant negative relationship between interdepartmental conflict and overall market orientation is inconsistent with the findings of Jaworski and Kohli (1993), Harris and Piercy (1999), Puledran et al. (2000), Mahmoud (2011) and Akomea and Yeboah (2011) who found a significant negative relationship between interdepartmental conflict and market orientation. The study, however, finds support in Ghani and Mahmood (2011); and Ngansathil (2001), who found no significant relationship between interdepartmental conflict and market orientation.

**Connectedness**

The results revealed a non-significant positive relationship between interdepartmental connectedness and market orientation. This indicates that, even though interdepartmental connectedness affects market orientation in Ghana’s mobile telecommunications industry, its influence is not significant. In spite of this however, for firms in Ghana’s mobile telecommunications industry to be market oriented, they must build efficient internal communication systems within their organizations using systems recommended by Jaworski and Kohli (1993) such as voice mail, computer hookups, and a PABX telephone system.
With this interconnectedness, mobile telecommunications operators are likely to use it for improving social relationships and networking, which in turn may facilitate market oriented activities (Dwairi et al., 2012); enhance market orientation by leading to a greater sharing and use of information among workers (Kirca et al., 2005); and also more importantly facilitate the development of groups of activities that are aimed to satisfy the target market (Ignacio et al., 2002)

The relationship between interdepartmental connectedness and overall market orientation identified in this study is inconsistent with the findings of Jaworski and Kohli (1993), Harris and Piercy (1999), Puledran et al. (2000), Malik and Naeem (2009), Zebal and Goodwin (2011) and Mahmoud (2011) who found a significant positive relationship between interdepartmental connectedness and market orientation. It is, however, consistent with the findings of Ghani and Mahmood (2011) who found no significant relationship between interdepartmental connectedness and market orientation.

**Confirmation of Hypothesis 2, Objective 3 and Research Question 3**

On the basis of these findings, it can be stated that hypothesis 2, which states that there is a positive relationship between interdepartmental dynamics and market orientation, is not supported.

These findings contribute to the achievement of the third objective of the study and provides a response to the third research question, which sought to critically evaluate (internal and external) the dimensions of market-oriented behaviour for mobile telecommunications service providers in Ghana. Internally, as far as interdepartmental dynamics are concerned, it can be stated that none of the factors has a significant relationship with market orientation.

Based on these findings, none of the aspects of the conceptual model proposed in Chapter 4 (Figure 4.1), that in Ghana’s mobile telecommunications industry, there is a positive relationship between interdepartmental dynamics and market orientation is confirmed.
8.3.1.3 Organizational System

An organizational system, according to extant literature, is made up of formalization, centralization and reward systems (Jaworski and Kohli, 1993, Robbins and Judge 2011). These factors are thus included in the quantitative survey research assessment carried out on staff of mobile telecommunications operators.

Market Based Reward Systems

The results revealed a weak positive relationship between market based reward systems and market orientation. This indicates that, even though reliance on a market based reward system for evaluating and rewarding employees influences market orientation in Ghana’s mobile telecommunications industry, its influence is not significant. Thus, reliance on a market based reward system will not lead to any significant development in market orientation in Ghana’s mobile telecommunications industry.

However, it will still be worthwhile for firms in Ghana’s mobile telecommunication industry to reward employees on the basis of market performance in order to facilitate market orientation.

This finding is inconsistent with findings by Jaworski and Kohli (1993), Kirca et al. (2005), Puledran et al. (2000), and Zebal and Goodwin (2011) who found a significant positive relationship between market based reward system and overall market orientation. It is, however, consistent with the findings by the following (Mahmoud, 2011; Dwairie et al., 2012) who found no significant relationship between market based reward system and market orientation.

Confirmation of Hypothesis 3, Objective 3 and Research Question 3

Based on these findings, it can be stated that hypothesis 3, which states that there is a positive relationship between organizational systems and market orientation, is not supported.
This finding assists in achieving the third objective and provides a response to the third research question of the study which sought to critically evaluate (internal and external) the dimensions of market-oriented behaviour for mobile telecommunications service providers in Ghana. Internally, as far as organizational systems are concerned, none of the factors can be said to have a relationship with market orientation in Ghana’s mobile telecommunications industry.

Based on these findings, none of the aspects of the conceptual model proposed in Chapter 4 (Figure 4.1) to the effect that internally, organizational systems have a positive relationship with market orientation is confirmed.

8.3.1.4 External Factors

Competition

The results revealed a weak positive relationship between competition and market orientation. Thus, it can be stated that in Ghana’s mobile telecommunications industry, even though competition has some relationship with market orientation, it is not strong enough to exert any significant influence. In spite of this, firms in Ghana’s mobile telecommunication industry need to take their competitors seriously and be more responsive to their customers’ needs than their competitors to be market oriented.

The findings with regard to market orientation and competition are inconsistent with the findings of Avlontis and Gounaris (1999); Zebal and Goodwin (2011) and Mahmoud (2011) who found a significant positive relationship between competition and market orientation. They are also inconsistent with Halpern and Pagliari (2008) who found out in the Airport industry that the greater the perceived competition, the greater the tendency to accept market orientation.

Market Turbulence

A non-significant negative relationship was obtained between market turbulence and market orientation. This indicates that to some extent in Ghana’s mobile telecommunication industry even though not significantly, the greater the market
turbulence, the lower will be the market orientation of mobile telecommunication operators in Ghana. Thus, mobile telecommunication operators in Ghana, to some degree, may not respond to customers that look for new products all the time and whose product preferences change frequently.

It was expected that in Ghana’s mobile telecommunications industry, market turbulence would play a positive role in determining the market orientation of a company, however it works negatively even though not significantly.

The negative relationship of market turbulence with market orientation identified in this study is not only inconsistent with the findings of Lusch and Lacziak (1987) and Davis et al. (1991), but also contrary to the theory which is applicable to the developed countries, as market orientation of a company is supposed to be encouraged by market turbulence and not be discouraged. However the findings are consistent with the findings of Zebal and Goodwin (2011), who found no relationship between market turbulence and market orientation and also findings by the following (Mahmoud, 2011; Kuada and Buatsi, 2005; Dwairie et al., 2012) who found no decisive relationship between market turbulence and market orientation

**Technological Turbulence**

A weak positive relationship was obtained between technological turbulence and market orientation. Thus, in Ghana’s mobile telecommunications industry, changes in technology do have an influence on market orientation except that it is not significant. This is inconsistent with findings by Jaworksi and Kohli’s (1993) who indicated a reverse relationship for technological turbulence and market-orientation performance.

**Confirmation of Hypothesis 4, Objective 3 and Research Question 3**

Based on these findings, it can be stated that hypothesis 4 which states that there is a positive relationship between external environmental factors and market orientation is not supported.
This finding assists in achieving the third objective of the study and also provides a response to the third research question, which sought to critically evaluate (internal and external) the dimensions of market-oriented behaviour for mobile telecommunications service providers in Ghana. Externally, as far as environmental factors are concerned, none of the factors has a significant influence on market orientation. Even though competition and technological factors have a positive relationship with market orientation, and market turbulence has a negative relationship with market orientation, they are not significant enough to exert any influence on market orientation.

Based on these findings, none of the aspects of the conceptual model proposed in Chapter 4 (Figure 4.1), to the effect that external environmental factors have a positive relationship with market orientation organizational system in Ghana’s mobile telecommunications industry is confirmed.

8.3.2 Market Orientation and Consequences

Despite some reservations (Greenley, 1995; Appiah-Adu, 1998; Langerak, 2003), the economic and non-economic effect of market orientation on business performance referred to as consequences of market orientation is replete in academic literature (Narver and Slater, 1990; Jaworski and Kohli, 1993; Dawes, 2000; Kumar, 2002, Opeda et al., 2011; Kirca et al., 2005). In various studies, not only are non-economic consequences of customer satisfaction and customer repeat purchase (Becker and Homburg, 1999; Homburg and Pfelessner; 2000; Kirca et al., 2005; Zebal and Goodwin, 2011), and employee consequences of employee commitment and employee esprit de corps (Jaworski and Kohli, 1993; Zebal, 2003; Bunic, 2007) recognized, but also economic consequences of financial business performance (Dawes, 2000; Kumar, 2002; Rodrigues Cano et al., 2004; Kirca et al., 2005; González-Benito and González-Benito, 2005; Raaij and Stoelhorst, 2008).

To establish the authenticity or otherwise of these studies in Ghana’s mobile telecommunications industry, employees were requested to assess the consequences of these factors in their firms as a result of market orientation.
8.3.2.1 Customer Consequences

Several studies have established a positive connection between market orientation and customer consequences in terms of commitment and repeat purchase (Kohli and Jaworski, 1990; Narver and Slater, 1995; Padanyi, 2005; Nayebzadeh, 2013). Zebal and Goodwin (2011) specifically state that positive customer responses have been associated with market orientation of organizations. These elements were thus included in the survey research conducted on the staff of the six mobile telecommunications firms.

Customer Repeat Purchase

The study revealed a positive relationship between market orientation and customer repeat purchase. This indicates that the greater the market orientation, the more repeat customers there will be in Ghana’s mobile telecommunication industry. Thus, to encourage customers to make repeat purchases, firms in Ghana’s mobile telecommunications industry must be market oriented.

The relationship between market orientation and customer consequences of customer repeat purchase in this study is consistent with the findings of Becker and Homburg (1999), Homburg and Pfelessser (2000), Kirca et al. (2005), Gainer and Padani (2005), Dauda, (2010), and Zebal and Godwin (2011). Kohli and Jaworski (1990) specifically stated that market orientation besides leading to satisfied customers who make repeat purchases also leads to customers who recommend the product to potential customers.

Customer Satisfaction

The results revealed a significant positive relationship between market orientation and customer satisfaction. This attests to the fact that the greater the market orientation, the greater will customer satisfaction be in Ghana’s mobile telecommunications industry. Thus, firms in Ghana’s mobile telecommunication industry have to be market oriented to ensure customer satisfaction. The positive relationship between market orientation and customer consequences of customer satisfaction in this study is consistent with the findings of Becker and Homburg (1999), Homburg and Pfelessser (2000), Kirca et al. (2005), Gainer and Padani (2005), and Zebal and Godwin (2011). Kohli and Jaworski
(1990) specifically state that market orientation is related to satisfied customers who spread the good word regarding the product to others.

**Confirmation of Hypothesis 7, Objective 4 and Research Question 4**

These findings support hypothesis 7, which indicates a positive relationship between market orientation and customer consequence of customer repeat purchase and customer satisfaction. It also partly assured the achievement of the fourth objective of the study and provides answers to research question four which sought to examine the relationship between market orientation and business performance in Ghana’s mobile telecommunications industry. Specifically relating to customer consequences, it is established that market orientation results in repeat customers and customer satisfaction.

Based on these findings, the following aspects of the conceptual model proposed in Chapter 4 (Figure 4.1) is confirmed by Figure 8.3, which depicts that market orientation in Ghana’s mobile telecommunications industry has a positive influence on customer consequences of satisfaction and repeat purchase.

![Figure 8.3: Market Orientation and Customer Consequences](source: Fieldwork, 2014)

**8.3.2.2 Employee Consequences**

Various studies have established the relationship between market orientation, and the employee consequences of employee organizational commitment (Castro et al., 2005; Matsuno et al., 2005) and esprit de corps (Matsuno et al., 2005). These consequences are thus captured as part of the survey research conducted on staff of the six mobile telecommunications firms.
Employee Commitment

The study reveals a significant positive relationship between market orientation and employee commitment. This indicates that the greater the market orientation, the greater will be employees’ commitment in Ghana’s mobile telecommunications industry. Thus, to engender employee commitment, firms in Ghana’s mobile telecommunications industry must be market oriented. As indicated by Shoham et al. (2005), committed employees are more likely to go beyond required norms to contribute to organizational goals and are willing to put more effort into the well being of the organization.

The significant positive effect of overall market orientation on an employee’s organizational commitment is consistent with the findings of Jaworski and Kohli (1993), Shoham et al. (2005), Kirca et al. (2005) and Dauda (2010). As O’Driscoll et al. (2006) have concluded, as organizational commitment increases so does the level of oneness that employees feel towards the organization. With this comes increased motivation to assist others with their work and to further develop their own work environment.

Personal empowerment by staff is thus likely to be the outcome, which in turn is expected to benefit the organization. With the employee having a stronger sense of alignment with the firm they will be more likely to engage in value adding activities and be more willing to transfer knowledge (O’Driscoll et al., 2006), and employees are less likely to resign (Benkoff, 1997) thus new staff do not have to be recruited and trained (Zebal and Godwin, 2011). The finding is however inconsistent with that of Mahmoud (2011) who found no such relationship between market orientation and employee commitment in Ghana’s small and medium size enterprise.

Employee Esprit de Corps

The study revealed a significant positive relationship between combined market orientation and esprit de corps. This means that the greater the market orientation, the greater will be employees’ esprit de corps in Ghana’s mobile telecommunications industry. Thus, to enhance employees’ esprit de corps, firms in Ghana’s mobile telecommunications industry should be market oriented by placing emphasis on their
customers, generating intelligence, disseminating intelligence and taking necessary action.

The significant positive effect of overall market orientation on employee’s esprit de corps is consistent with the findings of Jaworksi and Kohli (1993), Selnes et al. (1996), Matsuno et al. (2005), Zebal and Goodwin (2011), and Shoham and Rose (2001).

**Confirmation of Hypothesis 6, Objective 3 and Research Question 3.**

These findings support hypothesis 6, which indicate a positive relationship between market orientation and employee consequence of employee commitment and esprit de corps. They assist in partly achieving the third objective of the study and provide answers to the third research question which sought to examine the relationship between market orientation and business performance in Ghana’s mobile telecommunications industry. Specifically relating to employee consequences, it is established that market orientation results in employee commitment and esprit de corps.

Based on these findings, the following aspects of the conceptual model proposed in Chapter 4 (Figure 4.1) are confirmed by Figure 8.4 that market orientation in Ghana’s mobile telecommunications industry has positive influence on employee consequences of commitment and esprit de corps.

**Figure 8.4: Market Orientation and Employee Consequences**

![Diagram](source: Fieldwork, 2014)
8.3.2.3 Business Performance

The study revealed a significant positive relationship between market orientation and business performance. This indicates that the greater the market orientation, the better will be the economic performance of firms in Ghana’s mobile telecommunications industry, thus confirming the fact that when market orientation occurs in Ghana’s mobile telecommunications industry, there is a significant and positive relationship with higher corporate monetary performance. Thus, in order to achieve superior business performance, firms in Ghana’s mobile telecommunications industry, must carry out market oriented activities of customer emphasis, intelligence generation, dissemination and responsiveness.

The significant positive effect of overall market orientation on business performance (economic performance) is consistent with the findings of Jaworski and Kohli (1993), Dawes (2000), Kirca et al. (2005), Pelham (2000), Puleodran et al. (2000), Kara et al. (2005), Hafer and Gresham (2008), Shoham et al. (2005), and Rapp et al. (2011). Such outcomes as stated by Zebal (2003) will be positive for stakeholders of mobile telecommunications firms in Ghana, be they the community, the nation, the customers, or the employees as, according to Jaiyeoba (2014), they will help establish tenets of organizational behaviour with them and unequivocally make an impact on organizational performance.

For all of these interested parties, stronger financial performance breeds confidence in both the products offered and the contribution mobile telecommunications companies will make to their future wellbeing (Zebal, 2003). As suggested by Vieri (2010), it will also enable mobile telecommunications firms to track and respond to changing customer needs. The findings are however inconsistent with that of Appiah- Adu (1998), Han et al. (1998), Sevitt (2001), Oguagwu (2006) and Qu and Ennew (2009) who found no significant relationship between market orientation and financial performance.
Confirmation of Hypothesis 8, Objective 3 and Research Question 3

These findings support hypothesis 8 which indicates a positive relationship between market orientation and financial performance in Ghana’s mobile telecommunications industry. The findings also assist in partly achieving the third objective of the study and also provide a response to the third research question, which sought to examine the relationship between market orientation and business performance in Ghana’s mobile telecommunications industry. Specifically, it establishes the fact that mobile telecommunications companies in Ghana will benefit from financial performance if they are market oriented.

Based on these findings, the following aspects of the conceptual model proposed in Chapter 4 (Figure 4.1) are confirmed by Figure 8.5 that market orientation in Ghana’s mobile telecommunications industry has a positive influence on financial performance.

Figure 8.5: Market Orientation and Financial Performance

8.4 Comparison of Staff and Customer Assessment of Market Orientation

Authors such as Steinman et al. (2000) have argued that the answer to the question “what level of market orientation should a firm have?” can only be: ‘the appropriate level of market orientation is what the customer thinks it should be’, a view first advocated by Desphandé, Farley, and Webster (1993) who intimate that the evaluation of a firm’s extent of customer orientation should also come from customers, and not just the managers of the firm itself. Based on this, a comparison of overall market orientation and the dimensions of market orientation practices are captured from both subscribers and operators in the study.
The study reveals a significant difference between providers and subscribers’ ratings of overall market orientation in Ghana’s mobile telecommunications industry. For specific elements of market orientation consisting of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness, providers of mobile telecommunications services rated themselves significantly higher than subscribers of their services.

For customer emphasis, staff rated themselves higher as undertaking activities that confirm their commitment to this responsibility than subscribers rated them. In effect, while staff seem to suggest that they have demonstrated severally their commitment to customer emphasis, subscribers did not consider it as such and rated operators’ customer emphasis low. Similarly, for intelligence generation, while staff indicated a commitment to this responsibility and thus pursuing it with all rigour, subscribers thought otherwise and rated their intelligence generation lower, thus establishing a considerable gap between operators’ rating and subscribers’ ratings of intelligence generation.

Again with intelligence dissemination, while staff intimated that they appropriately disseminate intelligence generated, subscribers thought otherwise, again establishing a gap between operators’ assessment for their intelligence dissemination activities and subscribers’ assessment of operators’ intelligence dissemination. In taking action on intelligence generated and disseminated, subscribers in assessing operators, rated them lower than operators assessed themselves as they rated themselves highly thus establishing a gap between their assessments.

Finally, regarding overall market orientation, while operator’s staff rated themselves highly in their assessment, subscribers, contrary to operators’ opinion, rated them lowly again establishing a gap between operators and subscribers’ assessment for overall market orientation.

In effect, while operators considered themselves as being market oriented, rating themselves highly on all dimensions of market orientation and overall market orientation, subscribers were of varied opinions.
This significant gap between subscribers and operators’ assessment of market orientation in Ghana’s mobile telecommunications industry is consistent with the findings of Johnson and Verayangkura (2000), Webb et al. (2000) and Puledran et al. (2000) who all established a gap when suppliers’ and customers’ assessment of market orientation are compared.

As indicated by Webb et al. (2000), in this sense, adopting solely a management-defined view of market orientation is one-sided in that it ignores the vital role that customers play in terms of value recognition. A basic assumption in this approach to market orientation is that the nature and characteristics of a firm’s offerings are a direct function of the market orientation level of the firm. Thus, customers, by experiencing the product/services, especially in long-term relationship contexts, can be considered to be qualified to form opinions, and construct cognitive evaluations of the providing organization’s market orientation level (Webb et al., 2000).

**Confirmation of Hypothesis 9, Objective 2 and Research Question 2.**

These findings support hypothesis 9, which indicates that in Ghana’s mobile telecommunications industry, industry ratings of the elements of market orientation will significantly differ between operators and subscribers. The findings also assist in achieving the second objective and provides a response to the second research question, which sought to examine the gap between organizations and customers’ perceived level of market orientation in Ghana’s mobile telecommunications industry. Specifically, the findings establish the fact that, when operators and subscribers’ assessments of market orientation in Ghana’s mobile telecommunications industry are compared, there is a significant difference.

Based on these findings, the following aspect of the conceptual model proposed in Chapter 4 (Figure 4.1) is confirmed by Figure 8.6 that in Ghana’s mobile telecommunication industry there is a significant difference between customers and operators’ assessment of the dimensions of market orientation.
8.5 Confirmation of Conceptual Model

In Chapter Four of the study, a conceptual model (Figure 4.1) was proposed for market orientation, its antecedents and consequences in Ghana’s mobile telecommunications industry based on extant literature. This was made up of three main internal antecedents; external antecedents; two main non-economic consequences; and an economic consequence. The internal antecedents consist of senior management characteristics made up of top management emphasis, management training, risk aversion and formal marketing education; interdepartmental dynamics made up of interdepartmental conflict and interdepartmental connectedness; organizational systems made up of formalization, centralization and reward system; and external antecedents made up of competition, market turbulence and technological turbulence.

Market orientation consequences consisted of employee consequences of employee commitment and esprit de corps; and customer consequences of customer satisfaction and customer repeat purchase as well as financial performance.
Thus, in the proposed model, there were twelve antecedents and five consequences of market orientation. Hedged between the antecedents and consequences in the proposed model are the four market orientation components made up of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness; and a gap between the comparative assessment of operators and customers’ assessment of the elements of market orientation in Ghana’s mobile telecommunications industry.

Figure 8.7 establishes an empirical model for market orientation components, its antecedents and consequences and a comparative assessment of the dimension of market orientation by subscribers and operators based on the findings of the study and previous models developed in the preceding discussions.

The left section of the empirical model Figure 8.7 (A) identifies only one antecedent of market orientation, being top management emphasis, which was found to have a significant relationship with market orientation in Ghana’s mobile telecommunications industry. Top management emphasis was found to have a significant positive relationship with market orientation. Interdepartmental conflict was found to have a non-significant negative relationship with market orientation. Interdepartmental connectedness, competitive turbulence and technological turbulence were found to have a non-significant positive relationship with market orientation, and market turbulence was found to have a non-significant negative relationship with market orientation. The other remaining antecedent factors of market orientation, namely risk aversion and formal marketing education in the proposed model in Chapter 4 did not have any statistically significant relationship with market orientation in Ghana’s mobile telecommunications industry.

The right side of the empirical model Figure 8.7 (C) establishes customer consequences of customer satisfaction and customer repeat purchase, employee consequences of employee satisfaction and employee esprit de corps and business consequences of financial performance in Ghana’s mobile telecommunications industry. All of these factors were found to be derived from the practice of market orientation thus establishing a significant positive relationship between market orientation and economic and non-economic performance in Ghana’s mobile telecommunications industry.
Also captured in the centre of the empirical model Figure 8.7 (B) between the antecedents and consequences, are the elements of market orientation of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness obtained from both operators and subscribers. The empirical model establishes a gap between operators and subscribers’ assessment of market orientation in Ghana’s mobile telecommunication industry.

Thus, the left side (A) of the empirical model identifies one internal antecedent of market orientation (top management emphasis). The right side (C) establishes five consequences of market orientation (customer satisfaction, customer repeat purchase, employee commitment, employee esprit de corps and economic performance). The centre (B) establishes market orientation as consisting of four key elements (customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness) which also indicate a gap between subscribers and operators’ assessment of key elements of market orientation.
Figure 8.7: Empirical Model of Market Orientation for Ghana’s Mobile Telecommunications Industry

Antecedents of Market Orientation

Internal Antecedents

Senior Management Characteristics
- Top management Emphasis

Focal Dyad Perceptions

Market Orientation Assessment by Operators
- Customer Emphasis
- Intelligence Generation
- Intelligence Dissemination
- Intelligence

Market Orientation Gap Between Operators and Subscribers

Market Orientation Assessment by Subscribers
- Customer Emphasis
- Intelligence Generation
- Intelligence Dissemination
- Intelligence

Consequences of Market Orientation

Employees
- Organizational Commitment
- Espirit de Corps

Customer Response
- Customer Satisfaction
- Repeat Customer

Financial Performance
- ARPU
- Market Share
- Profitability
- Growth of subscribers

Source: Field Work 2014
8.6 Summary of the Chapter

This chapter of the study has triangulated qualitative and quantitative findings of staff responses on the components of market orientation, analysed quantitative findings of staff response on the antecedents and consequences of market orientation and compared subscribers and operators’ responses on the components of market orientation.

Quantitative and qualitative responses from staff on the components of market orientation corroborate each other. The findings in this respect indicate that mobile telecommunications companies in Ghana practise the elements of marketing orientation made up of customer emphasis, intelligence generation, intelligence dissemination and intelligence responsiveness; thus, to a large extent it can be said that firms in Ghana’s mobile telecommunications industry are market oriented.

Staff findings on the antecedents and consequences of market orientation are provided for in this chapter. Only one internal antecedent of top management emphasis was found to have a significant positive relationship with market orientation. The rest of the internal antecedents, namely risk aversion, formal marketing education, interdepartmental connectedness, and reward systems were not found to have any significant relationship with market orientation. The external antecedents of competition, market turbulence, and technological turbulence were also found not to have any significant relationship with market orientation in Ghana’s mobile telecommunications industry.

The study, however, reveals that the market orientation of the mobile telecommunications firms in Ghana significantly determines both the economic and non-economic performance of business. The potential outcomes for the mobile telecommunications industry in Ghana appear significant if market orientation is adopted. These outcomes are positive for customers, employees, and for the mobile telecommunications companies as ongoing business.

For customers, it does not only lead to satisfaction with the products and services received but also that customer retention is a significantly related outcome. The benefit from this is that it will have a stable customer base and money spent on marketing aimed
to attract customers will have an outcome of primarily adding to the number of existing customers rather than replacing those who have moved their business elsewhere.

For staff, market orientation was found to lead to employee commitment and esprit de corps. The likelihood of the effect of this result is the reduction in staff turnover and possible recruitment of new staff who would require training at the expense of the mobile telecommunications operators.

Overall market orientation has a significant effect on economic (business performance) and non-economic performance (employees’ organizational commitment, employees’ esprit de corps, customer satisfaction, and repeat customer) in Ghana’s mobile telecommunications industry. This outcome gives credence to Kholi and Jaworski’s (1990) findings in which they argue that by spreading a sense of pride and camaraderie among employees, market orientation enhances organizational commitment, employee-team esprit and customer orientation. Thus, the findings reveal that market orientation is the most appropriate strategic option to influence customer satisfaction, team spirit, business performance and repeat purchase (Jaiyeoba, 2014).

A comparative assessment of the elements of market orientation between operators and subscribers also established the fact that there is a gap in their assessment. Whilst staff are highly satisfied with the extent of market orientation, subscribers expressed dissenting views.

From the discussion of findings, it can be concluded that, with the exception of some differences in the antecedents of market orientation, the proposed linkage between market orientation with its antecedents and consequences in the conceptual market orientation framework (Chapter 4 Figure 4.1) is appropriate. This indicates the effectiveness of the use of market orientation in Ghana’s mobile telecommunications industry. Since most of the findings of this study are consistent with those of the previous market orientation studies in developed countries, the appropriateness of the application of the conceptual market orientation framework (Chapter 4, Figure 4.1) for this study has been confirmed despite the inconsistencies found with some antecedents of market orientation.
The findings of the study generally resonate with the results of Jaworski and Kholi (1993), as well as Narver and Slater’s (1993) model. As aptly expressed by Jaiyeoba (2014), the impact of market orientation on business performance suggests the need for a better understanding of the organizational forces that determine the degree and shape the direction of a market oriented culture within the firm. Furthermore, market orientation as indicated by Jaiyeoba (2014) provides mobile telecommunications firms in Ghana with ways to connect with the market, customers, and employees in order to improve organizational growth and profitability, which are required for competitiveness and survival.

The discussion of the findings in this chapter provides a basis in the subsequent final chapter, Chapter 9 to summarise the study, establish the significance of the study, highlight the limitation of the study, make recommendations, provide direction for future research and draw appropriate conclusions.
Reference


9.1 Introduction
This concluding chapter of the study, besides the introductory section, has seven additional sections. The second section (9.2) summarizes the research study providing the constituents of the various chapters of the study. The third (9.3) discusses the main thrust of the study indicating the motivation behind it, while the fourth section (9.4) elucidates on the main findings of the study. The contribution of the research to theory, management practice and methodology is captured in the fifth section (9.5) with the sixth section (9.6) setting out the recommendations made from the study. The summary of the chapter (9.7) forms the seventh section, and the final section of the chapter (9.8) indicates the limitations and direction of future research.

9.2 Summary of Study
Chapter One set the scene for the research by providing the background and justification for the study. It also established the objectives, hypotheses, research questions, the managerial and academic contribution that the research makes. The outline of the dissertation is also captured in this chapter.

Chapter Two provides an understanding of the context within which the study is carried out. It expatiates on developments in the global, African, sub-Saharan African and Ghanaian mobile telecommunications industry emphasizing trends, major developments, challenges and benefits that mobile telecommunications have brought to Ghana.

Chapter Three reviews and synthesizes existing literature relevant to the study. Specifically, it clarified and defined the market orientation terminology, its development and other marketing philosophies that are available, the five main conceptualization of market orientation, as well as the antecedents, elements and consequences of market orientation. Literature on gaps between suppliers and customers’ assessment of marketing orientation and approaches to market orientation studies are also discussed.
In Chapter Four a conceptual model was developed based on the literature reviewed and nine hypotheses formulated, which were tested in Chapter Six of the study. In Chapter Five, the research methodology adopted and its justification are provided. It explained the basis for the adoption of the critical realism philosophy among all other philosophies, and the reasons for adopting a mixed method of quantitative and qualitative research design. The chapter also outlined the in-depth interview protocols and questionnaire administration and set out the data-collection procedures. Additionally, methods of quantitative and qualitative data analysis are discussed in the chapter. Finally, limitations and ethical considerations are provided.

Chapter Six presented an analysis of qualitative data. In-depth interviews with ten senior managers from five mobile telecommunications operators on the practices and elements of market orientation are succinctly transcribed and analysed by thematic analysis to provide additional insight into the quantitative data collected subsequently. Qualitative findings established the fact that operators in Ghana’s mobile telecommunications industry are market oriented because they place emphasis on customers, generate customer intelligence, disseminate intelligence generated, and respond appropriately to the intelligence, which are considered critical elements for any market oriented organisation.

Chapter Seven presents an analysis of quantitative data collected. Confirmatory factor analysis was undertaken to establish a correlation and model fit of data and to establish the reliability and validity of measures used. Using structural equation modeling, path diagrams for dimensions, antecedents and consequences of market orientation and their regression weights are provided. The findings established top management emphasis as the only internal antecedent that has an influence on market orientation while, five consequences, namely customer satisfaction, customer repeat purchase, employee commitment, employee esprit de corps, and financial performance were upheld. The chapter finally compares subscribers and operators assessment of the dimensions of market orientation by means of a T test, which establishes a gap between operators’ own assessment of their market orientation compared with subscribers’ assessment of operators’ market orientation.
Chapter Eight, the penultimate chapter, triangulates the qualitative and quantitative findings on staff assessment of the dimensions of market orientation to examine the consistency of their responses. Also captured in the chapter is a discussion of the key findings of the study and the extent to which they confirm or dispute extant literature. The chapter discusses the conceptual model proposed in Chapter Four, and based on the findings in Chapters Six and Seven, provides an empirical model, accepting and rejecting various hypotheses formulated in Chapter Four.

This final chapter, which is the concluding chapter of the study, summarises the study, establishes the main thrust of the study, outlines the contribution of the research study to theory and practice, makes appropriate recommendations; indicates the limitations of the study, and provides direction for future research.

9.3 Main Thrust of the Study

There have been several studies on market orientation since the early 1990s when Kohli and Jaworski (1990), Narver and Slater (1990) and Jaworski and Kohli (1993) produced their seminal work on the subject matter. Its antecedents, dimensions and components have since been extensively researched by various authors culminating in the acknowledgement of its role as a major source of achieving sustainable competitive advantage in marketing literature (Narver and Salter, 1990; Ruekert, 1992; Kohli et al., 1993; Slater and Narver, 1994; Deng and Dart, 1994; Deshpande et al., 1993; Slater and Narver, 1995; Han et al., 1998, Dauda, 2010, Kirca et al., 2005, Ghani and Mahmoud, 2011, Mahmoud, 2011; Mahmoud and Hinson, 2011).

Overwhelmingly, the majority of empirical evidence comes from developed economy contexts (Cano et al., 2004). However, as Nwankwo et al. (2006) have concluded, while there can be little doubt that market orientation delivers superior performance in developed western economies, the implementation in many transition economy contexts reveals a range of paradoxes which point to some gaps in both theory and practice of marketing culminating in authors such as Jaiyoeba (2014) recommending the need to expand the construct to new areas. As further argued by Singh and Gaur (2009), findings derived from one context may not be applicable to another context, especially, if there are
substantial differences in terms of nature and characteristics of firms and business environment. Based on these, Sanjaya et al. (2011) recommended that, to establish the external validity of findings, there is the need to amass empirical support from a variety of settings, which provided a justification to study the construct within the Ghanaian setting.

This lack of adequate research on market orientation within the Ghanaian context is exacerbated by the absence of empirical research conducted on the market orientation construct in Ghana’s mobile telecommunications industry despite the significant contribution the industry continues to make to the country’s economy. As indicated by Jaiyoeba (2014), service firms are becoming market oriented, requiring theoretical frames and empirical analysis. However, there is a conspicuous absence of discourse on the role market orientation plays in enhancing the performance in Ghana’s mobile telecommunications industry. Aside this, the ambiguity that emerges from developing contexts (Diamantopoulos and Hart, 1993), which has provided a justification for the research in Ghana, the acute paucity on the mobile telecommunications industry presented both an empirical and theoretical gap, which this study seeks to fill, and it forms a major thrust of the study. The study is thus consistent with Narver and Slater’s (1990) view that market orientation research must be replicated in diverse cultures to boost conviction in the nature and power of market orientation and its antecedents.

Equally important to this study is the fact that, despite the abundance of previous research on the practice of market orientation, most of the researches focused on the market orientation perceptions of the selling organizations only (Johnson and Verayangkura, 2000). Furthermore, although the influence of market orientation on firm performance is well established, most of the previous researches focused on self-report, and subjective measures of performance. Therefore, for scholarly prudence, there was the need for a related empirical study of the assessment of the dimensions of market orientation by both subscribers and operators in Ghana’s mobile telecommunication industry. Thus, a major thrust of the study was to establish the gap(s) that might exist between operators and subscriber’s assessments of the dimensions of market orientation instead of providing a self-assessment from operator’s opinion which has been the approach for many studies.
As intimated by Webb et al. (2000), disparities between the service providers’ and customers’ perceptions concerning the providers’ market oriented behaviour should have a unique effect on the satisfaction response, over and above any direct effect that customer perceptions of the provider’s market orientation may have on satisfaction. This is because, according to them, being out of tune, that is, a mismatch of views about the level of value that service providers think they deliver and what customers actually experience, can lead to unrealized customer expectations and therefore, dissatisfaction.

9.4 Main Findings of the Study

9.4.1 Dimensions of Market Orientation
The findings confirm that market orientation consists of four sub-dimensions, namely customer emphasis, intelligence generation, intelligence dissemination, and responsiveness, which are all practised by firms in Ghana’s mobile telecommunications industry.

From the findings, customer emphasis is the most significant element of the dimensions of market orientation practised by firms in Ghana’s mobile telecommunications industry. The emphasis on customers, according to the findings, includes the active encouragement of customer comments and complaints, regular evaluation of ways to create superior products/service and the regular measurement of customer satisfaction levels.

Also significant is the finding that mobile telecommunications firms generate information on their customers. Even though it obtained the least score in the dimensions of market orientation it was significant enough to be worthy of consideration. Not only is information generated on customers but also, to some extent, on competitors as well. This consists of the regular monitoring of competitor activity, the collection and use of market information on competitors to develop marketing plans and using the field staff such as vendors to monitor and report competitor activity.

It was also found out that intelligence dissemination/co-ordination is another significant dimension of market orientation practised by mobile telecommunications firms after customer emphasis. This suggests the sharing of market and product information
throughout the organization. It also relates to how marketing information is shared between departments, the involvement of all departments in the preparation of business plans and strategies, the integration of the activities between departments, the interaction of marketing personnel with other departments; and regular inter-departmental meetings to discuss market trends, developments and customer needs. It was also found out that responsiveness is practised in the mobile telecommunications industry. This entails being able to respond rapidly to competitor price changes and regularly monitoring customers’ product/service needs.

9.4.2 Antecedents of Market Orientation

9.4.2.1 Senior Management Characteristics and Market Orientation

The study established a significant positive relationship between top management emphasis and market orientation in Ghana’s mobile telecommunications industry. The more emphasis placed on customers by management in the mobile telecommunications industry, the more market-oriented the firm becomes. Such an emphasis is required for market orientation to succeed because when it is active it will be driven down the organization, and with the passage of time, will reinvent the organizational culture (Zebal and Goodwin, 2011). The study, however, found no significant relationship between risk aversion and market orientation. Risk aversion as a single variable did not make any unique contribution to explaining the firms’ level of market orientation. This makes top management’s degree of risk aversion not significant in establishing the level of market orientation in Ghana’s mobile telecommunications industry. Similarly, formal marketing education was not found to have any significant relationship with market orientation in Ghana’s mobile telecommunications industry.
9.4.2.2 Interdepartmental Dynamics and Market Orientation

The study established a non-significant negative relationship between interdepartmental conflict and market orientation; and a non-significant relationship between interconnectedness and market orientation. Hence, although the existence of interdepartmental conflict leads to less market orientation and low interdepartmental conflict leads to high market orientation, they are not impactful enough on market orientation. Thus, mobile telecommunication firms can have some wrangling yet market orientation will continue to grow. Similarly, even if mobile telecommunications firms have an organized and disciplined working environment that allows for the vertical and horizontal transfer of knowledge as prescribed by Zebal and Goodwin (2011) for interconnectedness, it will not have any influence on market orientation as interdepartmental connectedness does not impact on market orientation.

9.4.2.3 Organizational Systems and Market Orientation

Reward system is found to have some positive relationship with market orientation even though it is weak. Thus, mobile telecommunication firms, even if they measure and subsequently reward according to results, such as performance based bonuses and promotion, will not significantly impact the activity of market orientation. Such rewards do not motivate the outcome of market orientation.

9.4.2.4 External Factors and Market Orientation

When the external environmental variables are considered, it seems clear that the existence of competitive intensity does not have any influence on market orientation. Competition was found to have a weak positive relationship with market orientation. Similarly, technology was found to have a weak positive relationship with market orientation whilst market turbulence had a non-significant negative relationship with market orientation. Thus, even though the presence of technology is deemed to have some relationship with market orientation and the presence of market turbulence must reduce market orientation and its absence must increase market orientation, their impact is not significant enough to exert any influence on market orientation.
9.4.3 Consequences of Market Orientation

Overall market orientation behaviour from the study is seen to have a significant effect on economic (business) and non-economic performance (employees’ commitment, employee esprit de corps, customer satisfaction, and repeat purchase) in Ghana’s mobile telecommunication industry.

9.4.3.1 Market Orientation and Employee Consequence

Specifically, for employees, the study established that market orientation behaviour is positively correlated with organizational commitment and esprit de corps. The more market orientated mobile telecommunications companies are, the more committed and greater esprit de corps employees share. This is understandable considering the fact that most mobile telecommunications companies in Ghana have established guidelines for their employees regarding commitment and esprit de corps. Almost all the firms in Ghana’s mobile telecommunication industry are multinationals, wholly or partly foreign owned so they ensure the institution of international standards of operations fused with a domestic culture of operations. They reward their employees based on improved levels of customer satisfaction by monthly reward schemes with the portraits of staff who excel in that respect displayed at their service centers with inscriptions such as “star of the month”.

9.4.3.2 Market Orientation and Customer Consequences

Specifically, for customer consequences, the study found that market orientation results in customers who are likely to be retained because they are satisfied with the products and services received. Furthermore, customers are more likely to be stable for mobile telecommunications firms and hence have to spend less on acquisition of new customers. Existing customers will thus be purchasing more resulting in repeat purchases and new customers added to existing ones rather than replacing them.

9.4.3.3 Market Orientation and Financial Performance

The study further established a significant relationship between market orientation and superior financial performance (sales, profit, ARPU, market share, subscriber increase). The study confirmed the findings of Kurtinaitiene’s (2005) study of European Union mobile telecommunication where he established a relationship between market
orientation and financial performance (profitability, market share growth and ARPU) which is subsequently confirmed by other studies (Kara et al., 2005; Kirca et al., 2005; Sin et al., 2005; Kaynak and Kara, 2004). Thus, mobile telecommunications firms in Ghana stand to benefit financially if they adopt a market-oriented approach to their activities.

9.4.4 Market Orientation Gap
A major finding from the study is that there is a significant difference between the mean rating of the operators’ own assessment of the firm and the subscriber’s assessment of the dimensions of market orientation. Invariably, a gap occurs when comparing subscribers’ assessment of operators’ market orientation to operator’s own assessment of their market orientation. There are indications that the gap is related to the length and importance of a business relationship (Steinman et al., 1999). These perceptual differences constitute a market orientation gap that relates to a divergence in the “experienced” market orientation level between the two sides of the exchange and is proposed to have an important effect on the relationship (Webb et al., 2000). This research thus tows the line of recent thinking of taking multiple perspectives when assessing the market orientation level of an organization. Webb et al. (2000) suggests that service firms should fruitfully “mind the gap” arising from inconsistencies in market orientation assessments between the firm’s self-reports and their customers’ evaluations, because it is related to customer satisfaction. They intitate that reducing the gap between the service providers’ and customers’ perceptions can be achieved by altering the provider’s market-oriented behaviors and/or by managing customers’ expectations. Greater perception consistency leads to a more positive satisfaction response and enhances the likelihood that a long-term provider-client relationship will develop.

9.5 Contribution of Research
The study and the resultant research findings discussed in previous sections make significant contributions to theory and practice especially as the study pertains to market orientation, its applicability and relevance in Ghana’s mobile telecommunications industry.
9.5.1 Theoretical Contribution of Research

Theoretically, the research makes significant contribution to academic literature on market orientation and firm performance in Ghana’s mobile telecommunications industry. Within the context of Ghana’s mobile telecommunications industry, this is one of the first major academic studies that examines the elements of market orientation, antecedents and consequences of market orientation. This is significant because it can be used to identify the antecedents that engender market orientation and the benefits that can accrue to organisations that adopt a market orientation approach to their activities.

Staff and subscribers’ assessments of the dimensions of market orientation in Ghana’s mobile telecommunications industry that establish a gap in their responses in this study is pioneering. This is a significant contribution to the market orientation literature since there is hardly any literature that makes a comparison between staff and subscribers’ assessment of market orientation on the elements of market orientation in Ghana’s mobile telecommunications environment. Even though not many studies have been undertaken on market orientation in Ghana, the few that have been undertaken adopted the approach of self-report measures.

The study furthermore compares qualitative and quantitative responses from the staff of mobile telecommunications companies making significant contribution to theoretical knowledge. To the extent that the study establishes consistency in the responses of staff respondents that operators in Ghana’s mobile telecommunication industry practise the marketing dimensions of customer focus, intelligence generation, intelligence dissemination, and responsiveness is noteworthy theoretically.

The market orientation and firm performance literature are replete with findings from western developed countries. This study, however, makes a significant contribution to literature within a developing country, specifically within the Ghanaian context in consonance with views expressed by Ndubisi et al. (2009) that there is the need to test marketing theory in non-western environments, as firms in emerging industries and developing economies often lack knowledge about the customer and can benefit from management and marketing practices. This provides an opportunity for adaptation and
validation of the empirical model developed in Chapter Eight in other developing countries.

The study’s findings, with the exception of a few variations, generally resonate with the results of Jaworski and Kohli (1993) as well as Zebal (2003) offering support for the robustness of their respective models. A modified theoretical model has, however been developed that captures the elements of market orientation practised in Ghana’s mobile telecommunications industry, the antecedents and consequences, of market orientation and the gap that exists between operators and subscribers’ assessments of the dimensions of market orientation.

9.5.2 Managerial Contribution to Research
The study, as rightly asserted by Jaiyeoba et al. (2014), paradoxically reveals that market orientation is the most appropriate strategic option that could influence customer satisfaction, team spirit, staff commitment, business performance and repeat purchases. Therefore, the methods and instruments used in this study could thus be utilised by managers and investors in the mobile telecommunications industry to analyse, monitor, and measure their firm’s market orientation behaviours and performance.

The study has also fulfilled an established need for a comparative evaluation of the elements of market orientation in Ghana’s mobile telecommunications industry; and has thus discerned implications and appropriate directions for management in the industry. Managers in Ghana’s mobile telecommunications industry will thus be motivated to accept market orientation as an instrument for assisting them to achieve their business objectives and commit resources in order to become market oriented.

Furthermore, the study makes significant contribution to how business managers in Ghana’s mobile telecommunications industry perceive the market orientation concept, its elements, antecedents and consequences, and how they can use it or are using it in their organizations. Practitioners in Ghana’s mobile telecommunications industry have, by this study, been provided with a theoretical model that could assist them in identifying the important elements they will need in the adoption of market orientation, which hopefully
should improve their organizational performance and avoid factors that can act as deterrents to market orientation.

There is also a new addition to the market orientation literature where subscribers and operators, given the opportunity to assess the dimensions of market orientation, established a gap in their response. This provides an opportunity for management in mobile telecommunications operators to assess their performance in the light of responses by subscribers and see how they can respond by closing the gap between their response and that of subscribers. An analysis of the gap will provide further understanding on the dimensions of market orientation from the perspective of customers and provide more clarity on how such a focus should be implemented. As suggested by Webb et al. (2000), the results of this study suggest that the gap approach can be a valuable tool for identifying differences between business services providers and customers’ perceptions of market orientation. Moreover, addressing the market orientation gap seems a logical basis for formulating strategies to enhance customer satisfaction.

9.5.3 Contribution to Methodology
The study is significant in relation to the method of analysis adopted. Whilst the majority of the major studies in developed countries and the few in developing countries such as Ghana adopt MANOVA and ANOVA in their analyses, this study adopts SEM analysis, an enhanced multivariate form of analysis incorporating LISREL 8.5 and path analysis.

9.6 Recommendations
The study established a gap between operators and subscribers’ assessments of operators’ market orientation. Subscribers expect telecommunication operators to listen to their requirements and develop a deeper understanding of them, not just to deliver the product. The gap, which shows self-assessments of operators to be higher than those of customers, should be managed with a shift from pure measurements of market orientation to measurement and, more critically, management of the market orientation gap. Mobile telecommunications operators will have to work to close this gap and should consider moving from a vocabulary of transaction toward the vocabulary of relationship as recommended by Steinman and Deshpande, (2000). It is also conceivable that new
organisational mechanisms that bring the voice of the customer into the firm will effecteetively reduce such gaps, and thus need to be considered. Mobile telecommunications operators and their employees need to focus on how customers assess them.

The importance of top management emphasis on the adoption of market orientation in Ghana’s mobile telecommunications industry has been established. For market orientation to succeed, such a management emphasis appears required and when active it is expected that this influence will cascade down the organisation and essentially over, time, reinvent the organisational culture. In view of this, top management need to stress the importance of market orientation by spreading the word. Spreading the word, according to Jaworski and Kohli (1993), will make employees aware of the need to change. It also commits them to changes needed and that can help them think of ways to increase market orientation in all its aspects. Top management are also advised to invest in marketing-related mobile telecommunication activities with appropriate financial and human resources as well as try to develop a corporate culture that reinforces behaviours that are consistent with market orientation. Finally, it will be prudent for the leadership of mobile telecommunications operators in Ghana to provide the required resources, encouraging the sharing of market based ideas through suggestion schemes and uplifting employees’ motivation by formal and informal support in order to make their organizations more market oriented.

The importance of the impact of market orientation on business performance in Ghana’s mobile telecommunications industry suggests the need for a better understanding of the organisational forces that determine the degree and shape of the direction of a market oriented culture within the firm. It is thus recommended that mobile telecommunications operators who want to outperform similar or competing operators can do so by adopting a market orientation and should therefore continually monitor and improve the way in which they gather, disseminate and respond to market intelligence. This is because market orientation provides mobile telecommunications firms with ways to connect with the market, customers, and employees in order to improve organisational growth and profitability which are required for its competitiveness and survival.
Market opportunities have the greatest effect on performance and can be influenced by a market orientation. However, simply engaging in market orientated activities does not ensure that the desired consequences of those activities will be met. Other factors, such as the quality of market intelligence that is gathered and disseminated may be questionable, or the response to market intelligence may be inappropriate. It is the market information and marketing strategy formulation dimensions that appear to be critical to overall performance. As stated by Kok and Driessen (2000), not only does it shape the market information processing behaviour including collecting and disseminating market information and being responsive to it, it also affects the values needed for a customer focus that are relevant in a service context. Therefore, while the implementation of marketing strategy could be important, it is the collection and dissemination of market information and formulation of appropriate marketing strategies that are critical to the overall success of mobile telecommunications operators in Ghana. (Jaiyeoba, 2014).

Human resource departments can reduce the margin for error by identifying the key skills and management competencies that are required to implement a market orientation and develop training programmes to improve the organisation-wide understanding of the activities involved in developing a market orientation.

9.7 Summary of the Chapter

This final chapter consummates the study on market orientation and firm performance in Ghana’s mobile telecommunications industry. Because of intensive competitions in today’s world market, managers of organisations are seeking to improve organisational effectiveness. In this condition, as intimated by Nayebzadeh (2014), only having the desired level of performance is not sufficient to meet the unpredictable changes and control in choices and market demands. Thus, as indicated by Jaworski and Kohli (1993), to provide superior quality products in an organisation, is to necessitate the continuous monitoring of market changes and be market oriented. However, despite several studies on the subject of market orientation and firm performance in developed countries, the inadequacy of research on the subject in developing countries, such as Ghana, coupled with the absence of any comprehensive study in Ghana’s mobile telecommunications industry served as a major motivation for the study. Furthermore, even for the numerous studies undertaken in developed western countries and the few in Ghana, the paucity of
studies comparing customers and sellers’ assessment of the dimensions of market orientation served as an additional incentive for the researcher to undertake the study since most studies carried out adopted the approach of self-report measures of assessment.

The study has conclusively established the fact that, in Ghana’s mobile telecommunications industry, only one internal factor (top management emphasis) has a positive relationship with market orientation and also that the significant effect of market orientation on Ghana’s mobile telecommunications industry is not only reflected in superior financial performance but has also been linked to other factors that are beneficial to the firm, customers and employees.

This chapter has thus summarized the study, emphasized the main thrust of the study, indicated the main findings of the study, established the contribution that the study makes to theory, to methodology and managerially, made appropriate recommendations, and ends with the limitation and future research direction.

The bibliography, and appendices made up of the letter introducing the researcher to participating firms (Appendix A); in-depth interview guide (Appendix B); and staff and customers survey questionnaires (Appendices C & D) are presented in subsequent pages.

9.8 Limitations and Future Research Studies

The research study left out some antecedents of market orientation because they were not captured in the conceptual framework developed in Chapter Four because the literature reviewed did not cover it. Antecedents such as political behaviour, general economy, entrepreneurship, company size and resources, professionalism, innovativeness and culture, which are aptly captured in literature though not considered critical, have been known to have some effect on market orientation. Subsequent studies can consider these antecedents together with the discussed antecedents to examine their relationships with market orientation.
Another shortfall of the study was that the study only triangulated staff qualitative and quantitative findings on the elements of marketing orientation to examine the extent they corroborate each other, leaving out the antecedents and consequences. Subsequent studies can therefore examine both qualitative and quantitative research approaches, not only on the elements of market orientation, but its antecedents and consequences for purposes of comparison.

In addition, the research established a gap between staff and operators’ assessment of the elements of market orientation but did not compare staff and subscribers’ assessment of the antecedents and consequences of market orientation. For future market orientation studies in Ghana, staff and subscribers’ assessment of the antecedents and consequences of market orientation can be explored. Furthermore, there is the need for a better understanding of how to close a market orientation gap. This is a promising area of research.

The measurement for performance (consequences) in Ghana’s mobile telecommunications industry did not take into consideration objective performance data such as annual report data or even other documentary sources of data such as trade and allied publications, relying solely on perceived data. Future research can make use of actual performance data or other such related data to measure the performance of firms.

Because of the structural equation modeling technique used in the analysis of data the study did not employ a very large sample size due to the sensitivity of the chi-square test for testing model fits to sample size. Even though the study did resolve the issue by using other goodness-of-fit indices to supplement the chi-square test, it was still to some extent constrained by the SEM analytical tool employed. Future research, can therefore, explore the use of other statistical methods of analysis such as regression, which are not sensitive to sample size and thus will allow for the use of large sample sizes to confirm the findings of this study.
In addition, the sample size for the study was all chosen from Accra, the capital of Ghana and the Greater Accra Region. However, it will be appropriate to examine the responses of staff and subscribers in other regions of the country. Staff in other regional offices in the mobile telecommunications industry may see issues from a different perspective from those chosen from the head offices where staff chosen for the study are likely to be more responsive to issues because of their proximity to the leadership of their organizations. Subscribers chosen from Accra are likely to be different from subscribers in other regions. It is therefore suggested that future research should consider incorporating views from staff and subscribers in other regions of Ghana.

Finally, this research has taken place when Ghana is facing a major power crisis, with power generation challenges culminating its rationing for the past three years (2012-2015). According to anecdotal evidence, the power rationing has affected service delivery in general and performance of the mobile telecommunications industry specifically. The mobile telecommunications industry thrives on regular, consistent and available power to ensure that its masts are operating at maximum capacity. With power rationing coupled with irregular power supply, there is the likelihood of lack of power affecting service delivery in general and affecting the responses of both subscribers and staff. It will be interesting to find out what the responses of staff and subscribers will be in normal times when the crisis has ended. This can form the basis of future research.

These limitations are, however, not considered significant enough to minimize the value of the findings of the research study.
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319


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The Director, Human Resource. Admin. & CSR  
Airtel Ghana Limited  
# 30 Independence Avenue North Ridge,  
Accra  

Dear Sir,

**LETTER OF INTRODUCTION EMMANUEL ARTHUR**

Mr Emmanuel Arthur is a marketing lecturer in the Central Business School (CBS) of Central University College.  

He is currently pursuing his PhD studies with London Metropolitan Business School. He is researching into *Market Orientation and Firm Performance in Ghana’s Mobile Telecommunications Industry*.  

As part of his qualitative data collection he wishes to interview two senior or middle level managers in your organization during the first or second week of March at their convenience.  

Data collected is purely for academic purposes, and strict confidentiality will be adhered to.  

Your assistance will be greatly appreciated.  

Yours faithfully,  

Anna Ewusi-Mensah (Mrs)  
Faculty Office (CBS)
Dear Sir/Madam,

I am currently undertaking PhD studies with London Metropolitan Business School U.K. My particular field of enquiry is Market Orientation and Firm Performance in Ghana’s Mobile Telecommunications Industry.

As a member of an organisation and in the industry I would like to understand your views and perspectives on the subject.

I would be grateful if you were able to devote some time to discuss this with me as part of my qualitative data collection in the form of a semi-structured interview.

All data gathered will be collected in the strictest confidence, and will be reported anonymously. This interview will be one of a number I hope to undertake as part of my overall Research Project.

I would be happy to answer any other questions you may have, but would be very grateful if you felt able to participate. The interview would take less than an hour, and would be scheduled at a time convenient to you. It would be taped and notes taken.

Thanks in anticipation.

Emmanuel Arthur
IN-DEPTH INTERVIEW GUIDE

1  GENERAL MARKET ORIENTATION QUESTIONS

a) What do you understand by the term market orientation?
b) What activities do you expect to be undertaken by a marketing oriented organisation?
c) What are the factors within the organisation that engender market orientation?
d) What factors outside the organisation engender market orientation?
e) What are the likely effects of an organisation being market oriented?
f) What are the likely effects of an organisation not being market oriented?

ELEMENTS OF MARKET ORIENTATION

2) Customer Focus

a) Is the customer very important to the activities of the organisation?
b) If yes, how do you portray this?
c) If no, why not?
d) Do customers’ needs feature in your decision process?
e) If yes, how does it feature?
f) If no, why not?

3) Intelligence Generation

a) Do you collect information on customers’ current and future needs?
b) If yes, how do you collect this information?
c) How often do you collect the information if you do?
d) If no, why don’t you?

4) Intelligence Dissemination

a) Do departments share information obtained on customers?
b) If yes, how is this information shared?
c) Does your organisation hold interdepartmental meetings?
d) If yes, does the customer feature in your discussions?
e) How often does the organisation hold interdepartmental meetings?

5) Taking Action

a) Does the organisation respond to information generated on customer needs?
b) If yes, how long does it take to respond and how is it done?
c) If no, why does the organisation not respond?
d) Do you provide feedback to customers on resolved issues and if so how?

6) Respondents Data

a) Gender  Male [ ]  Female [ ]
b) Age  18-25 [ ] 26-35 [ ] 36-45 [ ] 46-55 [ ] Above 55 [ ]
c) How long have you worked with the company?
   Under 1yr [ ] 1-4years [ ] 4-7years [ ] 7-10 years [ ] Above 10years [ ]
Appendix C

I am in the final stages of my PhD studies with London Metropolitan Business School researching into Market Orientation and Firm Performance in Ghana’s Mobile Telecommunication Industry and collecting data for analysis. As a member of staff with one of the mobile service providers I would appreciate it if you could take some time to answer the attached questionnaire. The information provided is for academic purpose only and will be treated with the utmost confidentiality.

Please read each of the statements carefully and circle the response that fits the condition prevailing in your organisation.

Strongly Disagree, [1]
Disagree [2]
Undecided, [3]
Agree [4]
Strongly Agree [5]

Thank you for your time.

Emmanuel Arthur
SURVEY QUESTIONNAIRE
Please indicate which mobile network you work with and TICK which you consider appropriate for the question asked.

**Mobile Company**: MTN [ ] Vodafone [ ] Tigo [ ] Airtel [ ] Glo Mobile [ ] Expresso [ ]

<table>
<thead>
<tr>
<th>Strongly Disagree,</th>
<th>Disagree,</th>
<th>Undecided,</th>
<th>Agree,</th>
<th>Strongly Agree</th>
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**MARKET ORIENTATION**

1. Customer Emphasis
   i. We encourage customer comments and complaints.
   ii. We are strongly committed to our customers.
   iii. We always look for ways to create value for our customers with our products/services.
   iv. We regularly measure our customers’ satisfaction.

2. Intelligence/Information Generation
   i. We meet with customers’ at least once a year to find out their future needs.
   ii. We regularly undertake in-house market research.
   iii. We assess our customers’ perception of the quality of our products once a year.
   iv. We are slow to detect changes in our customers’ product preferences.
   v. We are slow to detect fundamental changes in our industry (e.g. competitive, technological, regulatory changes).
   vi. We regularly review the likely effect of changes in our business environment (e.g. regulation) on customer.
   vi. Intelligence on our competitors is generated independently by several departments.

3. Intelligence Dissemination/Interfunctional Coordination
   i. We have interdepartmental meetings at least once a quarter to discuss market trends and developments.
   ii. Our marketing personnel spend time discussing customers’ future needs with other functional departments.
   iii. Customer satisfaction data on a regular basis are shared at all levels in this company.
   iv. When one department finds out something important about competitors, it is slow to alert other departments.
   v. If anything important happens to a major customer or market, the whole company knows about it in a short period of time.
### MARKET ORIENTATION

<table>
<thead>
<tr>
<th>4</th>
<th>Intelligence/Information, Responsiveness/Taking Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>It takes us forever to decide how to respond to our competitors’ price changes.</td>
</tr>
<tr>
<td>ii</td>
<td>We periodically review our product development efforts to ensure that they are in line with what customers want.</td>
</tr>
<tr>
<td>iii</td>
<td>For one reason or another we tend to ignore changes in our customers’ products or service needs.</td>
</tr>
<tr>
<td>iv</td>
<td>When we find that customers would like us to modify a product, the departments involved make a concerted effort to do so.</td>
</tr>
<tr>
<td>v</td>
<td>The activities of the different departments in this company are well coordinated.</td>
</tr>
<tr>
<td>vi</td>
<td>Customers’ complaints fall on deaf ears in this company.</td>
</tr>
<tr>
<td>vii</td>
<td>Even if we came up with a great marketing plan, we probably would not be able to implement it in a timely fashion.</td>
</tr>
<tr>
<td>viii</td>
<td>If a major competitor were to launch an intensive campaign targeted at our customers, we would implement a response immediately.</td>
</tr>
<tr>
<td>ix</td>
<td>Several departments get together periodically to plan a response to changes taking place in our business environment.</td>
</tr>
</tbody>
</table>

### ANTECEDENTS OF MARKET ORIENTATION

<table>
<thead>
<tr>
<th>A</th>
<th>Senior Management Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Top Management Emphasis</td>
</tr>
<tr>
<td>i</td>
<td>In this company, top managers repeatedly tell employees that this company’s survival depends on its adapting to market trends.</td>
</tr>
<tr>
<td>ii</td>
<td>Top managers often tell employees to be sensitive to the activities of our competitors.</td>
</tr>
<tr>
<td>iii</td>
<td>Top managers keep telling people around here that they must gear up now to meet customers’ future needs.</td>
</tr>
<tr>
<td>iv</td>
<td>According to top managers here, serving customers is the most important thing in our company does.</td>
</tr>
<tr>
<td>6</td>
<td>Risk Aversion</td>
</tr>
<tr>
<td>i</td>
<td>Top managers in this company believe that higher financial risks are worth taking for higher rewards.</td>
</tr>
<tr>
<td>ii</td>
<td>Top managers in this company like to take big financial risks.</td>
</tr>
<tr>
<td>iii</td>
<td>Top managers here encourage the development of innovating marketing strategies, knowing well that some will fail.</td>
</tr>
<tr>
<td>iv</td>
<td>Top managers around here like to implement plans only if they are very certain that they will work.</td>
</tr>
<tr>
<td>v</td>
<td>Top managers in this business unit like to “play it safe”.</td>
</tr>
</tbody>
</table>
### ANTECEDENTS OF MARKET ORIENTATION

<table>
<thead>
<tr>
<th>7</th>
<th>Management Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>In our company, top managers receive management training on a regular basis.</td>
</tr>
<tr>
<td>ii</td>
<td>It is our company’s requirement to organise management training programmes for top managers.</td>
</tr>
<tr>
<td>iii</td>
<td>Our company is reluctant about sending top managers into training programmes.</td>
</tr>
<tr>
<td>iv</td>
<td>We don’t have such training programme in our company.</td>
</tr>
</tbody>
</table>

### Formal Marketing Education

<table>
<thead>
<tr>
<th>8</th>
<th>Formal Marketing Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>It is our company’s requirement to have formal marketing education for the top managers.</td>
</tr>
<tr>
<td>ii</td>
<td>Our managers in marketing all have formal marketing education.</td>
</tr>
<tr>
<td>iii</td>
<td>Formal marketing education is the key requirement of the top managers in our marketing department for career Movement.</td>
</tr>
<tr>
<td>iv</td>
<td>We emphasise experience rather than formal marketing education to promote our managers in the marketing department.</td>
</tr>
</tbody>
</table>

### ORGANISATIONAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>9</th>
<th>Centralisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>There can be little action taken here until a supervisor approves a decision.</td>
</tr>
<tr>
<td>ii</td>
<td>Even small matters have to be referred to someone higher for a final decision.</td>
</tr>
<tr>
<td>iii</td>
<td>I have to ask my boss before I do almost anything.</td>
</tr>
<tr>
<td>iv</td>
<td>Any decision I make has to be by my boss’s approval.</td>
</tr>
<tr>
<td>v</td>
<td>A person who wants to make his own decision would be quickly discouraged here.</td>
</tr>
</tbody>
</table>

### Formalisation

<table>
<thead>
<tr>
<th>10</th>
<th>Formalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>I feel that I am my own boss in most matters.</td>
</tr>
<tr>
<td>ii</td>
<td>A person can make his/her own decisions without checking with anybody else.</td>
</tr>
<tr>
<td>iii</td>
<td>The employees in this company are constantly checked on for rule violation.</td>
</tr>
<tr>
<td>iv</td>
<td>People here feel as though they are constantly being watched to see that they obey all the rules.</td>
</tr>
</tbody>
</table>
### Organisational Characteristics

**11 Market Based Reward System**

i. Employees from every department in this company get recognised for being sensitive to competitive moves.

ii. Customer satisfaction assessments influence senior managers’ pay in this company.

iii. Formal rewards (e.g. pay rise, promotion) are forthcoming to anyone who consistently provides good market intelligence/information.

iv. Salespeople’s performance in this company is measured by the strength of relationships they build with customers.

v. Salespeople’s monetary compensation is almost entirely based on their sales volume.

### Interdepartmental Dynamics

**12 Interdepartmental Conflict**

i. Most departments in this company get along well with each other.

ii. When members of several departments get together, tensions frequently run high.

iii. People in one department generally dislike interaction with those from other departments.

iv. Employees from different departments feel that the goals of their respective departments are in harmony with each other.

v. There is little or no interdepartmental conflict in this company.

vi. Protecting one’s departmental turf is considered to be a way of life in this business unit.

**13 Interdepartmental Connectedness**

i. In this company, regardless of their rank or position, it is easy to talk to anyone you need to talk to.

ii. There is ample opportunity for informal hall talk among individuals from different departments in this company.

iii. In this company, employees from different departments feel comfortable calling each other when the need arises.

iv. People in this company are quite accessible to those in other departments.

v. Junior managers in my department can easily schedule meetings with junior managers in other departments.
<table>
<thead>
<tr>
<th>D</th>
<th>EXTERNAL FACTORS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Competition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>One hears of a new competitive move almost everyday.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ii</td>
<td>We frequently collect marketing data on our competitors to help direct our marketing plans.</td>
<td></td>
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<tr>
<td>iii</td>
<td>Our salespeople are instructed to monitor and report on competitor activity.</td>
<td></td>
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</tr>
<tr>
<td>iv</td>
<td>We respond rapidly to competitors’ actions.</td>
<td></td>
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</tr>
<tr>
<td>v</td>
<td>There are many promotions war in our company.</td>
<td></td>
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</tr>
<tr>
<td>vi</td>
<td>Price competition is a hallmark of our company.</td>
<td></td>
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</tr>
<tr>
<td>vii</td>
<td>Our competitors are relatively weak.</td>
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<tr>
<td>15</td>
<td>Technology</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>i</td>
<td>The technology in our company is changing rapidly.</td>
<td></td>
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</tr>
<tr>
<td>ii</td>
<td>Technology changes provide big opportunities in our company.</td>
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<tr>
<td>iii</td>
<td>A large number of new product ideas have been made possible through technological breakthroughs in our company.</td>
<td></td>
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<tr>
<td>iv</td>
<td>Technological developments in our company are rather minor.</td>
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<tr>
<td>v</td>
<td>It is very difficult to forecast where the technology in our industry will be in the next 2 to 3 years.</td>
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<tr>
<td>16</td>
<td>Market Turbulence</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>i</td>
<td>In our kind of business, customers’ product preferences change quite a bit over time.</td>
<td></td>
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<tr>
<td>ii</td>
<td>Our customers tend to look for new products all the time.</td>
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<tr>
<td>iii</td>
<td>We are witnessing demand for our products and services from customers who have never bought them before.</td>
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<tr>
<td>iv</td>
<td>Sometimes our customers are price sensitive, but on other occasions, price is relatively unimportant.</td>
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<tr>
<td>v</td>
<td>We cater for many of the same customers that we used to in the past.</td>
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</tbody>
</table>

**CONSEQUENCES OF MARKET ORIENTATION**

<table>
<thead>
<tr>
<th>E</th>
<th>EMPLOYEE CONSEQUENCES</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Employee Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Employees of this company would be happy to make personal sacrifices if it was important for the company’s well being.</td>
<td></td>
<td></td>
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<tr>
<td>ii</td>
<td>The bonds between this company and its employees are weak</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>iii</td>
<td>In general, employees are proud to work for this company</td>
<td></td>
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</tr>
<tr>
<td>iv</td>
<td>Our employees have little or no commitment to this company.</td>
<td></td>
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<tr>
<td>v</td>
<td>Employees feel as though their future is intimately linked to that of this organisation.</td>
<td></td>
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</tr>
<tr>
<td>18</td>
<td>Esprit de Corps</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>---</td>
</tr>
<tr>
<td>i</td>
<td>People in this company are genuinely concerned about each other’s needs and problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii</td>
<td>Working for this company is like being a part of a big Family.</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>iii</td>
<td>People in this company feel emotionally attached to each others needs.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>iv</td>
<td>People in this company view themselves as independent individuals who have to tolerate others around them.</td>
<td></td>
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<tr>
<td>v</td>
<td>A team spirit pervades all ranks in this business unit.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

F CUSTOMER CONSEQUENCES

<table>
<thead>
<tr>
<th>19</th>
<th>Customer Satisfaction</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>We have more loyal customers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii</td>
<td>We often receive complimentary phone calls/letters from our customers.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>iii</td>
<td>Our trade partners always praise our product quality.</td>
<td></td>
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</tr>
<tr>
<td>iv</td>
<td>We hardly receive any complaints about our product.</td>
<td></td>
<td></td>
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<tr>
<td>iv</td>
<td>We generate new customers for our company on a regular basis.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>v</td>
<td>Customers of this company are happy with our products and prices.</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>20</th>
<th>Repeat Customer</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>We have more repeat purchase in our company.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii</td>
<td>If a customer buys from us for the first time he/she also buy a second time and so on.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii</td>
<td>We have more committed customers.</td>
<td></td>
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</tr>
<tr>
<td>iv</td>
<td>We hardly see repeat purchases by our customers.</td>
<td></td>
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</tr>
</tbody>
</table>

G BUSINESS PERFORMANCE

<table>
<thead>
<tr>
<th>21</th>
<th>Market Performance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>The return on investment of our company has improved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii</td>
<td>We have remarkable subscriber growth in our company.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>iii</td>
<td>The market share of this company has gone up.</td>
<td></td>
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</tr>
<tr>
<td>iv</td>
<td>The sales volume has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v</td>
<td>The revenue of our company has increased.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi</td>
<td>The quality of our products has improved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii</td>
<td>The ARPU of my company has improved.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

22) Respondents Data

a) Gender 
   | Male [ ] | Female [ ] |

b) Age 
   | 18-25 [ ] | 26-35 [ ] | 36-45 [ ] | 46-55 [ ] | Above 55 [ ] |

c) How long have you worked with the company? 
   | Under 1yr [ ] | 1-4years [ ] | 4-7years [ ] | 7-10 years [ ] | Above 10years [ ] |
I am in the final stages of my PhD studies with London Metropolitan Business School researching into Market Orientation and Firm Performance in Ghana’s Mobile Telecommunication Industry and collecting data for analysis. As a subscriber of one of the mobile service providers I would appreciate it if you could take some time to answer the attached questionnaire. The information provided is for academic purpose only and will be treated with the utmost confidentiality.

Please read each of the statements carefully and circle the response that fits the condition prevailing in your organisation.

Strongly Disagree, [1]
Disagree [2],
Undecided, [3]
Agree [4],
Strongly Agree [5]

Thank you for your time.

Emmanuel Arthur
### SURVEY QUESTIONNAIRE

Please indicate which mobile network you subscribe to and TICK the response you consider appropriate to the question.

**Mobile Company:** MTN [ ] Vodafone [ ] Tigo [ ] Airtel [ ] Glo Mobile [ ] Expresso [ ]

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
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<td>[ ]</td>
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<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MARKET ORIENTATION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

#### 1 Customer Focus

**i** My service provider encourages customer comments and complaints.

**ii** My service provider is strongly committed to its customers.

**iii** My service provider always looks for ways to create value for its customers with their products/services.

**iv** My service provider regularly measures its customers’ satisfaction levels.

#### 2 Intelligence/Information Generation

**i** My service provider meets with its customers at least once a year to find out their future needs.

**ii** My service provider allows its customers to regularly participate in in-house market research.

**iii** My service provider assesses customer perceptions of the quality of the products once a year.

**iv** My service provider is slow to detect changes in its customer product preferences.

**v** My service provider is slow to detect fundamental changes in the industry (competitive, technological, regulatory changes).

**vi** My service provider regularly reviews the likely effect of changes in the business environment (e.g. regulation) on its customer.

**vii** My service provider has intelligence on its competitors generated independently by several departments.

#### 3 Intelligence Dissemination/Interfunctional Coordination

**i** My service provider has interdepartmental meetings at least once a quarter to discuss market trends and developments.

**ii** The marketing personnel of my service provider spends time discussing customers future needs with other functional departments.

**iii** Customer satisfaction data of my service provider are shared at all levels in the company on a regular basis.

**iv** When one department of my service provider finds out something important about competitors, it is slow to alert other departments.

**v** If anything important happens to major customer or market of my service provider, the whole company knows about it in a short period.
<table>
<thead>
<tr>
<th>MARKET ORIENTATION</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 Intelligence/Information Responsiveness/Taking Action</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. My service provider takes forever to decide how to respond to competitors’ price changes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. My service provider periodically reviews its product development efforts to ensure that they are in line with what customers’ want.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. My service provider for one reason or another tends to ignore changes in customers’ products or service needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv. My service provider when they find that customers would like their products modified, the departments involved make concerted efforts to do so.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v. The activities of the different departments of my service provider are well coordinated.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>vi. Complaints to my service operator fall on deaf ears.</td>
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<td>vii. My service provider even if they come up with a great marketing plan, probably would not be able to implement it in a timely fashion.</td>
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<tr>
<td>viii. Even if they come up with a great marketing plan my service provider will not be able to implement it in a timely fashion.</td>
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<tr>
<td>ix. My service provider gets its departments together periodically to plan a response to changes taking place in the business environment.</td>
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</tbody>
</table>

### Respondents Data

a) Gender
- Male [ ]
- Female [ ]

b) Age
- 18-25 [ ]
- 26-35 [ ]
- 36-45 [ ]
- 46-55 [ ]
- Above 55 [ ]

c) How long have you been a customer of the mobile company?
- Under 1yr [ ]
- 1-4years [ ]
- 4-7years [ ]
- 7-10 years [ ]
- Above 10years [ ]