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An Investigation of key Determinants of Customer Loyalty

Evidence from Ghana's Mobile Telecommunication Industry

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ABSTRACT

In a fiercely competitive business environment such as the mobile network services setting, it is a marketplace reality that the ability of firms to attract and retain customers ultimately determines their growth and survival prospects. This study, therefore, investigates how customer satisfaction, perceived service quality, perceived value, corporate image and switching cost determine customer loyalty in the mobile network services setting of Ghana. A total of 140 respondents completed an online survey via emails and social media platforms in Ghana. The results of the empirical study reveal that customer satisfaction had the greatest impact on loyalty. Service quality and perceived value are both directly and indirectly related to loyalty through satisfaction. The results also show that corporate image is a direct antecedent of customer loyalty. The role of image as a key factor in mobile network services marketing is thus confirmed. However, the influence of switching costs on customer loyalty was not corroborated in this study. We suggest that managers should emphasize service quality and perceived value as core elements for building satisfaction and loyalty. In regard to Mobile Number Portability (MNP) intentions, the study found that there were as many customers who were likely to port their numbers as there were those who might not. Notwithstanding, those with porting intent were fairly larger. Some customers also reported indecisiveness with MNP. As such, brand managers should design unique marketing strategies aimed at each of these consumer groups.

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CHAPTER 1

1. INTRODUCTION

Companies increasingly look to quality, satisfaction and loyalty as keys to achieving market leadership. Understanding what drives these critical elements, how they are linked and how they contribute to your company's overall equity is fundamental to success." (AC Nielsen, 2000; cited in Cronin et al. 2000, p. 210).

The purpose of this thesis was to investigate how factors including customer satisfaction, perceived service quality, perceived value, corporate image and switching costs are crucial to influencing customer loyalty within Ghana's mobile network services sector. In this opening chapter, a background for the study, critical research questions, and outline of the dissertation are carved out.

1.1 Background

The mobile telecommunication industry has become increasingly challenging and complex as an environment to operate in (Kim and Yoon, 2004; Seo, Rangathan, and Babad, 2008). The industry has become fiercely competitive and growing at an unprecedented rate during the last several years. The significant growth in the mobile telephony market can be the attributable to massive technical advances as well as the increased number of network operators, resulting in fierce competition (Gerpott, Rams, and Schinler, 200). While the increasing number of subscriber base has contributed to competition, the variety of services made available such as short message services (SMS), high-volume data applications, and internet enabled functionalities (MMS, WAP, GPRS etc) have also contributed immensely to this process (cf. Seo, Ranganathan and Babab, 2008).

Importantly, the de-regularization of the sector through the removal of state monopoly rights has made it possible for private participation in the mobile telephony sector in many parts of the world, particularly Ghana. The Government of Ghana's restructuring of the state owned monopolistic telecommunication sector and subsequently, limiting her control has contributed to a more open and free market system. Now there is an equal playing field for all the brands in the sector to operate effectively and profitably without unnecessary interferences from the government.

Currently, there are 6 licensed mobile service providers in the country, namely MTN, Vodafone Ghana, Tigo, Airtel, Espresso, and, recently licensed carrier Glo Mobile, which is scheduled to become fully operational in the first quarter of 2012. Participation by such players has injected a certain level of energy and competitiveness in the market. Today, Ghana's mobile telecommunication market can be described as intensely competitive. Notwithstanding, the competition has breathed newness into the sector, making it more effective and efficient. The industry can now boast of reasonable levels of service quality, value-added services and active engagement with, and contribution to society. Boohene and Agyapong (2011) observed that with the deregulation of Ghana's telecommunication sector, along with its intense competition and advances in information and communication technology (ICT), considerable pressure has mounted on the companies to demonstrate their capacity to create customer value and remain attractive to consumers. These network service providers are finding it extremely difficult to differentiate themselves. All of them are scrambling to earn consumers' confidence and trust. Such complexities are challenging the business models of Ghana's mobile service providers. Evidently, winning over new customers through substantial price cuts, promotions, and bundled offerings are commonplace. While this approach may seem viable, it is hurting meaningful growth.

One remarkable development in Ghana's mobile telephony sector is the implementation of Mobile Number Portability. As a result, network carriers have embarked on aggressive ad campaigns and various marketing tactics to lure consumers into switching to their respective networks, with the promise of providing better service than they currently receive. Notably, with the entry of Glo Mobile into an already saturated business environment, it is obvious that Glo Mobile's initial strategy would be to pitch themselves as a favourable alternative to win brand switchers. Their first gamble will be to target consumers with high switching propensity. Indeed, incumbent brands such as MTN, Vodafone and Tigo, while they welcome the entry of a new player, have expressed some level of fear and uncertainty due to the likelihood of customer loss. Also, the continuing decline in average revenue per user (ARPU), due in part to increased multiple subscriptions, is a source of worry to many industry experts and the network carriers (Frempong, 2010). In fact, recent statistics by the National Communication Authority (2011), confirmed that four months into the implementation of MNP system, a total of 138,458 network subscribers have moved from one carrier to the other by October, 2011. This demonstrates that sizeable incidence of switching behaviour is currently underway.

While it is true that customers differ in terms of their loyalty to a particular brand, it is equally certain that customers who may perceive the current levels of service offering as below industry standard or their expectations may intensify their search for alternative service provider considered superior. In the United States, for example, customers are provided with financial incentives to subscribe to or switch from one operator to the other (Lai, Griffin, and Babin, 2009). Such trends are beginning to inform companies that performance improvements and profitability can be achieved by focusing on retaining and maintaining existing profitable customers. Thus, the strategic need for retaining current customers has increased dramatically (Seo, Ranganathan, and Babab, 2008).

Management scholars have long argued that the prime guarantee of business growth and profitability is on shifting attention from the activity of attracting customers to one which relies on retaining and maintaining relationship with existing customers (e.g., Ravald and Gronroos, 1996; Reichheld, Markey and Hopton, 2000; Andaleed, 1996;

Athanassopoulous and Iliakopoulous, 2003). Berry (1980) observed that "having customers not merely acquiring customers is crucial for service firms." The criticality of this assumption is based on the notion that it cost as much as 6 times more to win new customers than it does in keeping an existing one (Rosenberg and Czepiel, 1984, p. 45). Reichheld (1993) posit that, in relation to a specific industry, the likelihood of increasing profits by up to 60% is greater when potential customer migration is reduced by only 5%. The fundamental principle underlying these assumptions is rooted in relationship marketing's emphasis on the maintenance of relations between the company and its external actors, with customers classified as the most important actor. This activity facilitates the creation of customer loyalty so that a stable, mutually beneficial, and long-term relationship is sustained. Thus, a leading business strategy depends on the ability to build and maintain loyal and valued customer relationship; resulting in positive consequences including reducing alternative search behaviour, repeat purchase, spending on ancillary services, creating exit barriers, stimulating consumer cooperative behaviour etc. (Baloglu, 2002; Andeleed, 1996; Reichheld, Markey, and Hopton, 2000).

Relatedly, the creation of customer perceived value is considered an important component of relationship marketing (Ravald and Gronroos, 1996). A cursory evaluation of the literature reveal that the ability of service firms to provide superior customer value is regarded as one of the most successful strategies for achieving favourable behavioural intentions (e.g., Cronin, Brady and Hult, 2000; Olaru and Purchase, 2008), hence sustainable competitive advantage. Thus, it has become imperative for Telecom brands in Ghana's Mobile telephony market to understand that customer-oriented business strategy is the most attractive alternative for sustainable competitive advantage, and profitability, and importantly, as a guarantee for survival (Kim et al., 2004). Needless to say, all strategic priorities and activities should be founded on creating superior customer value and loyalty thereby. It is critical for these players to identify the various dimensions related to customer loyalty and how they could be improved so that customer bonds are strengthened and customer loyalty achieved as a result. Various constructs including service quality, satisfaction, network quality, switching barriers, brand image/corporate reputation, customer care service, call tariff plans, promotions, etc. are associated in different ways to customer loyalty in the mobile telecommunication sector (e.g., Wang and Lo, 2002); each producing idiosyncratic outcomes given their separate settings.

1.2 Overview of Ghana's Mobile Telecommunication services market

The government of Ghana liberalized the ICT industry in the early 1990s to ensure effective private participation in the industry. The change in direction was consistent with global policy changes in the ICT industry, since many countries resorted to deregulation to make the industry internally vibrant and globally attractive. Ghana sought to boost maximum accessibility to, and extended coverage of ICT facilities, introduction of value-added services, and improved consumer access to the state-of-the art technology (Frempong, 2005). As a consequence, various policy frameworks and regulatory bodies were developed to facilitate the transformation of the sector by promoting a broader opening of all market environments to private and competitive market forces. For example, the National Telecom Policy (NTP) was designed to promote the creation of suitable ICT market conditions founded on the principles of open markets and fair competition (Frempong, 2010). Also, National Communication Authority (NCA) was equally mandated to ensure that all players in the sector were sufficiently regulated, while putting in place all necessary measures to stimulate fair competition within Ghana's Telecommunication industry (Frempong, 2010).

Ghana liberalized its telecommunication sector in the early 1990s in order to exploit the potential benefits of reform. As a consequence, in 1994, the government adopted a Five-year Accelerated Development Programme (ADP) with the sole aim of increasing telephone coverage in the country by allowing for private participation in all sectors of the industry (Frempong, 2007).

In December 1996, Ghana partially privatized its incumbent, Ghana Telecom, and allowed another company to start operating a competing network (Haggarty, Shirley, and Wallsten, 2002). This was due to the fact that the operations of the incumbent was marked by constrained access, poor service, inefficiency, prohibitive pricing, etc., making privatization and competition more attractive to the government. This milestone on the part of the government, in an attempt to revolutionize the telecommunication industry by encouraging competition, set the stage for fundamental changes to continue afterwards.

In 1992, the first private mobile cellular company, Mobitel, began operations following the government's invitation for private participation. In that year 19,000 Ghanaians begun to use mobile phones and number has increased since. A second mobile operator entered in

1995, and a third in 1996. All these earmarked significant events in the history of Ghana's telecommunication industry.

With government's commitment to optimizing the fortunes of the nation through ICT developments, Ghana has undoubtedly become one of the most technologically advanced countries in the sub-region. The industry has been one of the fastest growing sectors of the country, while keeping appropriate speed with global ICT developments, particularly in the mobile cellular market. This demonstrates the significant contribution of open-market policy in the country. In Ghana, currently, the telecom market has six operators, and two national fixed-network operators. The mobile network service providers include MTN Ghana (a subsidiary of MTN South Africa), Tigo Ghana Limited (owned by Millicom International Cellular), Vodafone Ghana (part of Vodafone group), Airtel (owned by Bharti Airtel of India), Expressso (formerly Kasapa Telecom), and Glo Mobile (Nigeria), though licensed, is yet to commence business. Apart from MTN and Glo Mobile the remaining operators are subsidiaries of multinational telecom without African origin.

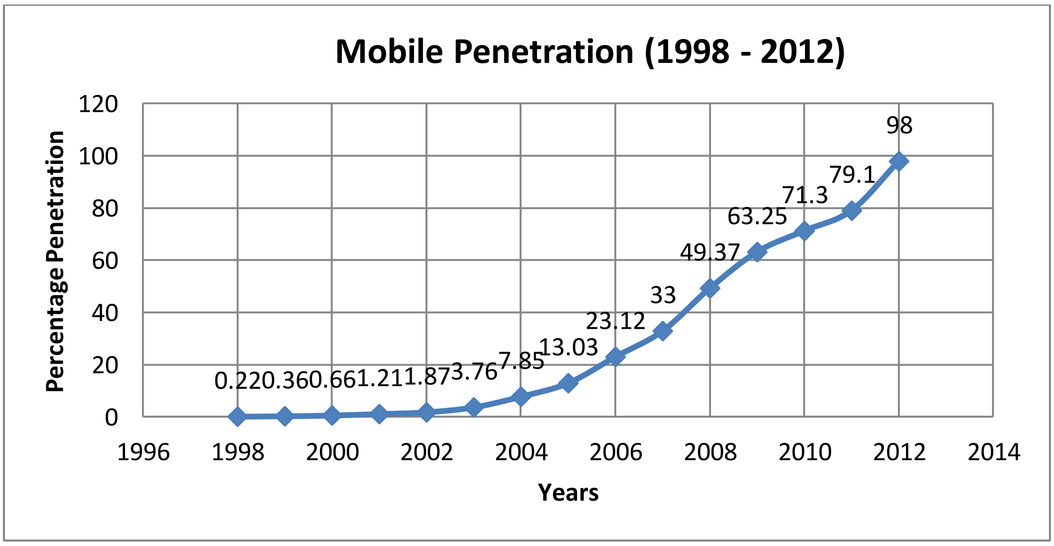
Frempong (2007) observed that the mobile telephone service market is the most pervasive voice communication in the country; due in part to the explosive growth in the market since reforms. Statistics reported by him revealed that, by the close of 2005, there were almost three million mobile service subscribers in the country, with MTN, then Areeba, controlling about 59% of market share. Between 2000 and 2005, the growth rate for mobile telephone subscription was at 87.4%. Recently, the subscriber base has grown larger, with a remarkable number of 21.17 million subscribers, representing 84.9%. But as of August, 2012, the total mobile voice subscriber base in Ghana was 24,438,983 representing 98% of a population of 25million people, according to the National Communication Authority (NCA). Yet, due to multiple subscriptions, where an individual customer may have more than one mobile line, the true rate of penetration based one customer/one mobile line may be difficult to ascertain.

By August 2012, figures from NCA showed MTN continuing their commanding lead with more than 11million subscribers representing 45% market share. Vodafone placed second with 20% market share of 4,901,555 subscribers, after improving subscriber base marginally. NCA figures also show Tigo recording marginal losses to record 15% market shares; making a minor loss of 0.6%. This represented a significant turnaround after battling eight months decline. Airtel, on the other hand, increased its subscriber base to

3.685million representing 12% market share. Meanwhile, Glo Mobile after barely 4 months of commercial operations recorded 1.15 million users representing 7% market share. Regrettably, Expresso continued their steep decline ending the period with only 178,799 users, representing 0.7% market share (NCA, 2012; Myjoyonline.com, 2012). Evidently, the figures show that while mobile penetration levels have been rising since, market share rises among mobile carriers does not follow a consistent trajectory. There are likely to be gains and losses among players along the way, further demonstrating the dynamic nature of the market landscape. Notwithstanding, telecom players with better strategy based on core consumer needs will be triumphant.

Below is a graphic representation of the rate of mobile penetration since 1998.

Fig 1: Ghana's Mobile Penetration Rate (1998 - 2012)



Source: National Communication Authority, and Myjoyonline.com

Thus, a cursory assessment of Ghana's mobile telephony market indicates that the market is highly saturated. The industry, at the moment, has become very exciting as competition paces on. In such an intense competitive environment telecom service providers have no option but to adopt creative strategies in order to gain significant share of the market. Additionally, numerous researches have confirmed that competition in the telecommunication industry has improved overall sector performance compared to monopoly provision in many parts of the world, leading to lower prices, better services, wider access, and quicker expansion of capacity (Choi, Lee and Chung, 2001; Kim, Park and Jeong, 2004; Wang and Lo, 2002).

This observation is equally true for Ghana's telecommunication industry. The current business conditions have opened a wave of opportunities for Ghanaian consumers to a broad choice of quality service among service providers, which was hitherto not the case. While competition has been conceptualized to lead to improvements in service delivery, majority of Ghanaian consumers still complain of poor network quality, limited coverage, poor customer service, complex call tariff plans, internet service problems etc. It appears these service operators have become untouchable. MTN Ghana, which is the current market leader, with a market share of 45% (NCA, 2012), is usually associated with much of these problems.

1.3 Problem definition

As competition intensifies, companies are confronted with various threats and opportunities in an effort to sustain their market position. In Ghana's saturated mobile services market, where both carriers and subscribers have either reached or nearing their peak levels; attracting and creating new customers, has become overwhelmingly difficult, and also very costly in terms of marketing spend (Kim, Park and Jeong, 2004). With mobile penetration rate standing at 84.9%, new subscriptions are expected to slow down and also stabilize, as observed in other markets (Santourisdis and Trivellas, 2010). However, multiple subscriptions continue to see steady growth. Currently there are six mobile service providers, of which four are strong international brands, competing for the patronage of over twenty one million mobile phone users; based on past trends the competitive landscape is expected to get ugly in the foreseeable future. The largest market share is held by MTN (47%), while the second and third positions shared by Tigo and Vodafone Ghana changes frequently between them over the last few months (NCA, 2012).

Meanwhile, with the implementation of Mobile Number Portability (MNP) system, network carriers face new challenges of preventing and protecting their existing profitable customers from migrating to competing brands. Industry watchers have welcomed the implementation of MNP, arguing that, it will have a positive impact on competition and also expand consumer choice in regard to changing service providers (Business Monitor International, 2011). In terms of its adoption, the expectation is that as awareness become intensified, increasingly, more consumers may try it. Notably, with the market leader's resolve to hold on to its sought-after position, and with the entry of Nigeria's largest network service provider, Glo Mobile, promising complete nationwide coverage (key point of differentiation), and phenomenal value added services, competition is again expected to reach heightened levels with varying outcomes. They include considerable customer defections, and decline in average revenue per user (ARPU) partly attributable to multiple subscriptions (Frempong, 2010). For the consumer, competition will result in better quality services, lower prices, enhanced choice alternatives, creative innovations etc.

Thus, market conditions depicting this scenario has led experts to conclude that a fundamental marketing strategy for the future is to attempt retaining existing customers by enhancing customer loyalty and perceived value (Kim, Park and Jeong, 2004; Gerpott et al., 2001; Santouridis and Trivellas, 2010). Based on previously mentioned facts, it can be argued that Ghana's mobile telephony market represents an exciting research setting for investigating customer loyalty and its antecedents. Due to increasing threats of customer defection, incumbent network providers are using various tactics including free minutes, promotions, and discounted bundled offerings to sweeten their offerings and lock-in customers. But Eshghi, Haughton, and Topi (2007) argue "to assume that customer defection can be controlled by providing financial incentives is fundamentally flawed" (p. 94). Rather, customer loyalty, as a matter of fact, is driven by multiplicity of interrelated factors. Despite its grave importance, scarcely will you find sufficient reported research on the subject in the mobile telecommunication services industry, particularly in Ghana; just a handful of studies have been reported in recent times. Thus, a firm understanding of these factors must precede marketing strategies aimed at reducing customer defection. As consequence, this research endeavors to develop and test a model to deepen further our understanding of the drivers of customer loyalty within the mobile telephony context. The model will have significant strategic implications for companies in extremely competitive markets such as in Ghana (see page 11 for research model).

1.4 Aims and Objectives

The main aim of this study is to investigate how customer satisfaction, perceived service quality, perceived value, corporate image and switching costs affect customer loyalty in Ghana's mobile network communication services sector. Central to this objective was the need to understand the intervening role of customer satisfaction between service quality and loyalty on one hand, and perceived value and loyalty on the other hand. Second, the study attempts to understand how mobile phone users' view Mobile Number Portability and their willingness to take advantage of it, i.e., the likelihood that consumers would actually use the Mobile Number portability scheme to enhance their choice set and service experience, thereby.

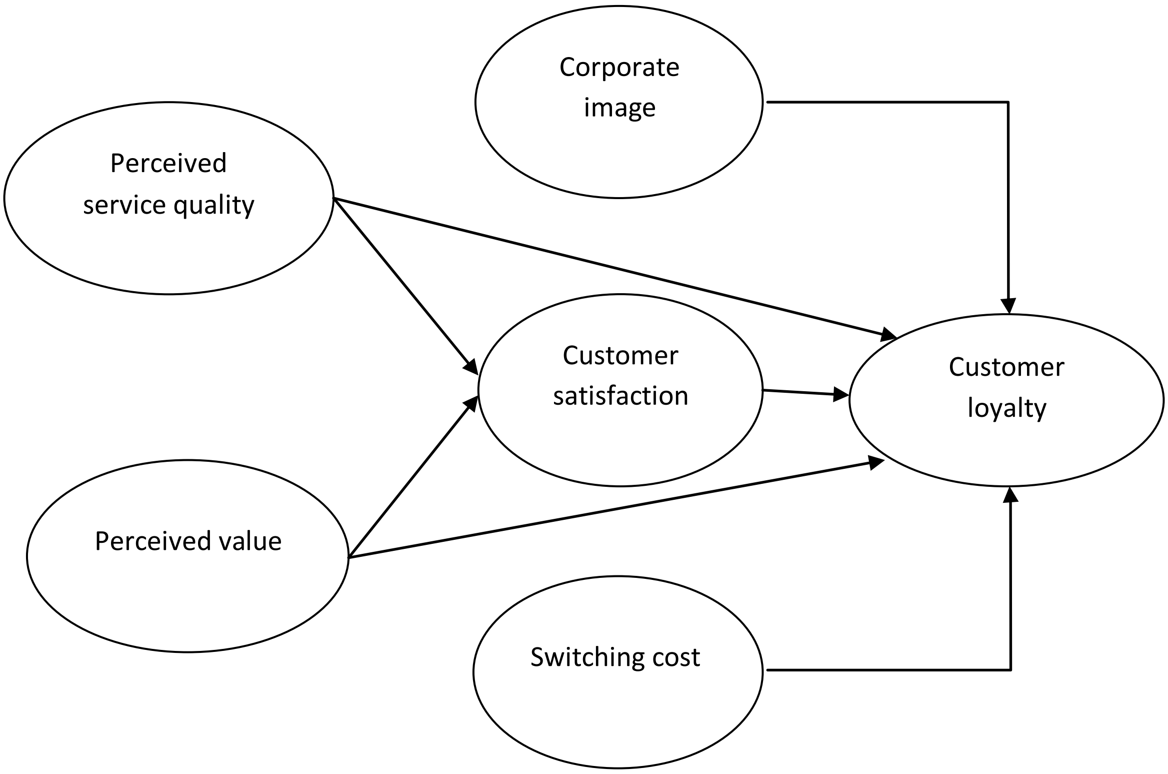
1.5 Research Questions

It is no longer enough to derive market advantage on the basis of a superior product (Johnson and Sirikit, 2002); other marketing tactics need to be uniquely configured and tactically implemented in order to achieve such meaningful growth and profitability. Service quality, value, and customer loyalty are now considered as keys to achieving market dominance (Nielson, 2000). Understanding what underlies these factors, how they are linked, and how they contribute to company success is essential. Noted earlier, customer loyalty is increasingly viewed as a prime determinant of long-term financial performance in a competitive market (Reichheld, 1996), which is determined by multitude of interrelated factors (Eshghi et al., 2007) Therefore, this study proposes to test the following questions:

- What are the key drivers of customer loyalty?
- What are the possible causal links among the drivers of customer loyalty?
- How does customer satisfaction mediate the relationship between perceived service quality and customer on one hand, and between perceived value and customer loyalty on the other hand?
- How does corporate image influence customer loyalty?
- Is there a link between perceived switching cost and customer loyalty?
- What is the likelihood that mobile phone subscribers would use Mobile Number Portability to extract better value and improve their service experience?

A better understanding of these factors and how they relate with each other would assist management and employees, particularly marketing executives, to fashion out winning strategies for sustaining customer loyalty, and marketing performance. In the following pages, the research model guiding the entire empirical study is provided.

Fig 2: Research Model



The model above encapsulates the whole research agenda. In the model, customer loyalty is the outcome variable all the dimensions are trying to explain. The assumption is that for customers to remain loyal to a service provider, certain critical decision factors would have to be present. First, customer satisfaction is assumed to directly relate to customer loyalty. Numerous studies have demonstrated that satisfied customers are profitable due to their loyalty. Moreover, satisfaction in the model mediates the relationship between service quality and loyalty, and also between perceived value and loyalty. It is noted that service quality and perceived value are posited to exert direct influence on both customer satisfaction and loyalty. The idea is that when services meet the highest possible standard, such as better network coverage, connection, voice quality etc., as in the case of mobile companies customers will not only be satisfied, but will be inclined to keep their relationship with the service provider for a long time. The same thing applies to perceived value. Customers who receive high value services at better prices will be pleased with their services, repurchase repeatedly, and offer positive recommendation to others. In another vain, both corporate image and switching cost are assumed to influence customer loyalty in their own right. A network services provider with a strong, favourable and unique image in the marketplace will gain consumers loyalty. Similarly, consumers who perceive that their intentions to switch to competing brands are curtailed by some sort of barriers may be forced to stay with their primary services provider. Overall, this model give a snapshot of how each of these factors contribute to explaining customer loyalty in the network services sector, particularly that of Ghana.

CHAPTER 2

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

In the introductory section, a foundation for investigating factors influencing consumer attitudes and behaviors within the Ghanaian mobile services sector was laid, with particular reference to the recent Mobile Number portability framework adopted by the National Communication Authority, Ghana. This section will be devoted to building a theoretical framework to guide the empirical investigations.

2.1 In-Depth Literature Review Based on Proposed Theoretical Model

The literature review is structured in accordance with the proposed research model for Ghana’s mobile network services sector (see figure 2, page 11). As recap, the model depicts customer loyalty as the outcome variable, with customer satisfaction, perceived service quality, perceived value, corporate image and switching costs all serving as predictors. Customer satisfaction is also included as a mediator in the relationship between perceived service quality and loyalty on one hand, and perceived value and loyalty on the other hand. This section begins by providing a critical review of how customer loyalty has been conceptualized, with subsequent subsections demonstrating how each of the predictor variables is connected to customer loyalty.

2.2 Customer Loyalty

While the focus of attention by researchers aimed at defining and measuring customer loyalty has been driven by products, the importance of the construct for services is also recognized (Dick and Basu, 1994). The need to fully understand the antecedents and consequences of loyalty is against the backdrop that establishing and maintaining a loyal relationship with customers has considerable effect on long-term financial performance in competitive markets (Hallowell, 1996; Reichheld, 1996). This is because customers who engage in repetitive purchases despite pressure to switch to another brand will, in the long run, contribute to business growth and profitability. Loyal customers are a valuable asset to any firm since they tend to spend on regular basis, and provide positive recommendation to other consumers.

Despite its importance, the definition of customer loyalty has remained a matter of debate. In his view, Oliver (1999, p.34) describes loyalty as “a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour .” Beerli, Martin, and Quintana (2004, p. 254) argue that the essence of loyalty has long been summarized as “repeat purchasing frequency or relative volume of same-brand purchase.” Several definitions that examine loyalty from a behavioural standpoint (e.g., repeat purchase) without delving into the psychological meaning of the term are considered problematic (Oliver, 1999). Jacoby and Chestnut (1978) investigated the psychological meaning of loyalty in order to separate it from behavioural (i.e. repeat purchase) loyalty. They concluded that using repetitive purchasing as a measure of loyalty could be invalid due to happenstance purchasing or a need for convenience. Also, where consumers are multi-brand loyal, inconsistent buying could mask loyalty.

Therefore, in an attempt to provide an alternative and a more comprehensive definition, researchers including, Dick and Basu (1994) suggested that loyalty should comprise both behavioural and attitudinal properties, and also determined by the strength of the association between relative attitude and repeat purchase. Hence, the general consensus among researchers is that both behavioural and attitudinal elements must be included when defining and conceptualizing customer loyalty (Santouridis and Trivellas, 2010). The behavioural dimension referring to issues related to frequency of repeated purchases and brand switches (Santouridis and Trivellas, 2010; Bowen and Shoemaker, 1998), whereas the attitudinal dimensions emphasizes psychological involvement and preference with a unique focus on issues such as brand recommendation, resistance to superior products, repurchase intentions and willingness to pay a premium price (Cronin and Taylor, 1992). Overall, customers who become loyal are more likely to increase their repurchase activities, make business referrals, give favourable word of mouth and are also less likely to switch to alternative suppliers in the face of attractive price inducements as compared to less loyal customers (Cheng, Lai, and Yeung, 2008). In other words, customers who exhibit both attitudinal and behavioural features of loyalty tend to demonstrate greater commitment to their relationship with their service suppliers. With the strategic importance of customer loyalty highlighted, it is necessary to understand, in depth, factors that drive customer loyalty.

2.3 Antecedents of customer loyalty

There has been increased interest, over several decades, in understanding the factors determining customer loyalty. While plethora of factors are assumed to influence loyalty, it is difficult, if not impossible; to find one study that has investigated all the antecedent factors of loyalty simultaneously and jointly (Aydin and Ozer, 2005; Cronin et al., 2000). Obviously, several factors are assumed to determine customer loyalty. Particularly, in the mobile services sector, over the past decade factors including customer satisfaction (Gerpott et al., 2001; Kuo, Wu, Deng, 2009) ; perceived value (Wang and Lo, 2002), service quality (including network quality) (Lim, Widdows and Park, 2006; Johnson and

Sikirit, 2002); switching cost (Kim et al., 2004; Seo and Badad, 2008); corporate image and trust (Aydin and Ozer, 2005) and other relationship marketing tactics have been reported to influence customer loyalty considerably. Thus, the proposed theoretical model for this study has identified customer satisfaction, perceived service quality, perceived value, corporate image, and switching cost as key determinants of customer loyalty in the mobile telecommunication sector of Ghana. As such, a synopsis of the effects of these factors on customer loyalty reported by other researchers in their respective mobile services market is outlined below

First the proposed model shows a direct link between customer satisfaction and customer loyalty. This is supported by a study investigating customer retention, loyalty and satisfaction within the German cellular market, where Gerpott, Rams, and Schindler (2001) found that overall customer satisfaction had a significant effect on customer loyalty, which in turn influenced customers' decision regarding whether or not to terminate/extend their contractual relationship with their mobile service providers. Second, perceived service quality is proposed to influence both satisfaction and loyalty directly. An indirect effect on loyalty is also assumed through satisfaction (e.g., Caruana, 2002). Santourisdis and Trivellas (2010) studying drivers of customer loyalty in the Greece mobile telephony market found, among other things, that service quality, measured by factors including network, customer service, value added services etc., had a direct as well as indirect effect through customer satisfaction, on customer loyalty.

Kuo, Wu and Deng (2009), however, reported that service quality did not have a direct effect on consumers' post purchase intentions with mobile value-added service offerings in China. On the contrary, they found satisfaction to fully mediate this interaction. Also, Kim et al. (2004) found that call quality, value-added services and customer support, all measuring service quality had a very strong impact on customer satisfaction, which in turn influenced Koreans loyalty in their mobile service providers. Specifically, call quality emerged as a very important attribute in the service quality – loyalty link. While service quality has been found to significantly influence customer loyalty, it is obvious from the above studies that varying outcomes are likely given the uniqueness of the research settings.

Third, perceived value is proposed to influence customer satisfaction and loyalty directly. Likewise, an indirect effect of perceived value on loyalty through satisfaction is also assumed in the model. Previous studies provide strong support for the positive linkage between customer perceptions of value and customer loyalty. For example, the study by Kuo, Wu and Deng (2009) showed that perceived value had a direct and positive effect on customer satisfaction and post-purchase intentions. Particularly, Hutchinson, Lai and Wang (2009) investigating the behavioural intentions of golf travelers in the tourism setting found that perceived value had direct positive effect on intention to revisit and favourable word of mouth. As shown in their study, they further suggested that perceived value be used as an immediate antecedent of customer satisfaction, empirically tested by other researchers (e.g., Brady and Cronin, 2001; Cronin et al., 2000; Oh, 2000). When customer needs, problems, frustrations, challenges, difficulties are solved by the service offering, so that they can achieve the desired outcome optimally, and at affordable cost, they become very pleased. Consequently, they would be inclined to revisit and/or say positive things about the service provider. On the contrary, if in trying to solve their communication problems, they encounter further challenges or frustrations deemed costly, they would be upset and, in turn, be negative about the service provider.

Lastly, the model proposes a direct effect of corporate image and switching cost on customer loyalty. Some previous studies reported that perceived switching cost, and corporate image both hanced customers' loyalty in their mobile service providers. For example, Aydin and Ozer (2005) investigating the Turkish mobile sector observed that perceived switching cost had positive and significant effect on loyalty. They, however, did not find the relationship between corporate image and loyalty to be statistically significant. Also, Kim et al. (2004) observed that customers were more likely to remain with their existing mobile service carriers even at lower levels of satisfaction, especially when they perceive overall switching barriers to be high. They argue that for carriers to cement their relationship with customers they needed to embark on various customer reward programs including price discounts and mileage programs to lock phone users in, a move general described as erecting intentional barriers (Klemperer, 1987).

In a related study, Lai, Griffin, and Babin (2009) suggests that corporate image shaped in part by customers' overall consumption experiences, and with service quality constituting these consumption experiences, seems to bolster loyalty for a company. However, they found that this image-loyalty link was mediated by customer satisfaction and perception of value. Yet, Boohene and Agyapong's (2011) investigation of Ghanaian's mobile services sector found a direct positive effect of corporate image on customer loyalty.

In sum, foregoing discussion provided a quick snapshot of how the dimensions are linked to loyalty. Preceding sections show a more detailed theoretical review and consequences of each of the constructs on customer loyalty within the mobiles services sector.

2.3.1 Customer satisfaction

Just like customer loyalty, customer satisfaction has attracted a lot of debate in regard to how the construct should be defined. In the marketing literature, at least, two dominant categorization of customer satisfaction have been suggested: transaction-specific and cumulative perspective (Anderson, Fornell and Lehmann, 1994). Researchers following the transaction-specific logic (e.g., Bitner, 1990; Oliver, 1993; Cronin and Taylor, 1992, p.56) have described satisfaction as a “post choice evaluative judgment of a specific purchase occasion” (Anderson, Fornell and Lehmann, 1994, p. 54). By contrast, cumulative customer satisfaction adherents, including Fornell (1992), and Anderson et al., (1994) have suggested that customer satisfaction be viewed as an overall evaluative process based on the complete purchase consumption and experience of products or services over time. Following the cumulative perspective, this paper views customer satisfaction with a mobile network service provider as the totality of customers’ experience, based on an overall evaluation of various aspects of the service offering over time (e.g., Pappu and Quester, 2006). This conceptualization takes into consideration the past, present, and future performance of a firm (Anderson, Fornell and Lehmann, 1994), which is particularly relevant for the mobile telephony services sector, given the continuous long-term contractual relationship that must be sustained for mutual value creation (Gerpott, et al., 2001).

Despite the different ways customer satisfaction has been treated, there is a general consensus that, “satisfaction is a person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (outcome) in relation to his or her expectations” (Kotler, 2003, p. 36). This means that customer satisfaction is a function of the perceived discrepancy between prior expectation and perceived performance following consumption, so that when a consumers’ overall perceived experience differs markedly from expectation, dissatisfaction is assumed to have occurred (Oliver, 1980). Rust and Oliver (1994) defined satisfaction as the degree to which a consumer believes that an experience induces positive feelings – a function of expectation fulfillment.

Customer satisfaction has received considerable attention in the extant literature as it has been considered a key determinant of various consumer behavioural outcomes, particularly customer loyalty (e.g., Cronin and Taylor, 1992). For example, Anderson and Sullivan (1993) observed that when customers become satisfied, they have a greater propensity to be retained and to be resistant to alternative offerings. In the same vein, Fornell (1992) argued that high satisfaction leads to customers with increased loyalty, and less susceptible to competitive inducements. Anderson, Fornell and Leymann (1994) pointed out that low customer satisfaction implied greater customer turnover, and higher replacement cost, due to the acquisition cost and difficulty in winning over customers who are satisfied with a competitors offering. As such, firms that ensure levels of customer satisfaction are sustained will benefit immensely as the cost of attracting new customers will be considerably lower (Hallowell, 1996). But more importantly, satisfied customers are more likely to engage in favourable word of mouth, and less likely to engage in damaging negative word of mouth (Fornell, 1992; Anderson, Fornell, and Leyman, 1994). Hutchinson et al. (2009) found that customer satisfaction had a strong impact on positive word of mouth and intention to revisit a golf travel destination. Satisfaction, however, did not influence golfer's search for alternative destinations. This finding may explain variety-seeking behaviours, such that no matter the level of satisfaction, some customers will search alternative sources (e.g, Kahn, 1995).

Moreover, Fornell, Johson, Anderson, Cha and Bryant (1996) pointed out that increased customer satisfaction is immediately followed by decreased customer complaints and increased customer loyalty. This is because when customers are dissatisfied they have the option of either resorting to exiting tactics (i.e., going to a competitor) or voicing their complaints in an attempt to receive retribution. Thus, complaint behaviour is reduced markedly when customers become satisfied, which leads to loyalty thereby (Fornell, et al., 1996). In addition, in a study of retail banking services, Hallowell (1996) found a causal link between customer satisfaction, customer loyalty and profitability. Brown and Gulycz (2002) suggested that customer satisfaction should be considered as a competitive weapon since traditional approaches to differentiation, such as product/service features, price, and distribution strategies were insufficient. Overall, it can be concluded from the reported findings that customer satisfaction has strong and positive impact on both behavioural and attitudinal aspects of loyalty (e.g., Santouridis and Trivellas, 2010). More specifically, higher levels of customer satisfaction lead to customer loyalty.

Similar results have been found in the mobile telecommunication services literature, where satisfaction has emerged to strongly influence customer loyalty (e.g., Lim, Widdows and Park, 2006; Gerpott et al. 2001; Liu, Guo and Lee, 2011; Kuo et al., 2009). For example, Lim, Widdows and Park's (2006) study of the US mobile services market found customer satisfaction as a strong predictor of customer loyalty. Gerpott et al. (2001) revealed that customer satisfaction had a strong indirect effect on customer retention, with this linkage fully mediated by customer loyalty toward a service provider. In other words, higher levels of customer satisfaction led to customer loyalty which, in turn, improved customer retention rates. In the Taiwanese mobile services market, Liu et al. (2011) found that satisfied customers were more likely to stay with their carrier and also recommend them to others while Kuo et al. (2009) discovered that customer satisfaction positively influenced consumers' post-purchase intentions in mobile added-value services. Lastly, while positive linear relationships between satisfaction and loyalty have been reported extensively, some scant negative relationships have also been found. For example, Boohene, and Agyapong (2011) analysis of customer loyalty in the Ghanaian telecommunication sector discovered that customer satisfaction had a significant, but negative effect on loyalty, implying that despite the low levels of satisfaction, consumers still remained loyal (i.e., repeat purchase) to their network providers. Notwithstanding, the general consensus is that customer satisfaction has a strong positive effect on customer loyalty. Therefore, it is hypothesized that:

H1. Customer satisfaction has a direct positive effect on customer loyalty

2.3.2 Perceived Service Quality

Researchers and practitioners interest in service quality is clear, reflected in the fact that poor quality compromises a firm's ability to effectively differentiate itself in the marketplace, potentially driving away customers (Lovelock and Wirtz, 2011). Thus, the delivery of higher service quality has long been recognized as a key differentiating strategy due to its strong impact on customer satisfaction, customer loyalty, profitability, and overall business performance. Given the unique impact of service quality on firm performance, several authors have sought to explain quality, thereby resulting in several distinct definitions and conceptualizations. For example, in marketing and economics, quality has often been viewed as dependent on the level of product quality (e.g., Hauser and Shugan, 1983). The operations management school (e.g., Garvin, 1988) also views quality as having two distinct features: (1) Fitness for use - referring to whether the product or service does what it is supposed to do, and also possess features that meet the needs of customers; and (2) Reliability – implying the extent to which the product is free from deficiencies. In the services marketing literature, quality is viewed as an overall assessment (e.g., Parasuraman, Zeithaml and Berry, 1985) of service attributes.

Specifically, service quality, according to the services literature is defined as a form of attitude, related but not equivalent to satisfaction, that result from the comparison of expected service levels with perceived performance (Bolton and Drew, 1992; Parasuraman, Zeithaml, and Berry, 1998, Cronin and Taylor, 1992, Johnson and Sirikit, 2002). Similarly, Anderson, Fornell and Leymann (1994, p. 54) described perceived quality as the "global judgment of a supplier's current offering." Advocating a performance-based approach to understanding service quality, Cronin and Taylor (1992) proposed that overall perceived quality be measured by having customers assess the performance of a firm's business processes. This is similar in spirit to the position taken by Gronroos (2007) who suggested that perceive service quality should be understood as the result of an evaluation process in which the customer compare their perceptions of the service delivery process, and its outcome to their expectations; hence, the distinction between functional (or process) quality, and technical (or outcome) quality.

In general, there is considerable evidence suggesting that service quality functions as an antecedent to customer satisfaction (Cronin and Taylor, 1992; Reichheld and Sasser, 1990), and consequently to customer loyalty. This has created considerable practitioner interest which focusses on identifying strategies for improving service quality. The measurement of service quality occupies center stage in service improvement programmes (Johnson and Sirikit, 2002). Particularly, the SERQUAL model developed by Parasuraman et al. (1988) and consisting of five dimensions namely reliability, responsiveness, assurance, empathy and tangibles is popularly considered as a robust measure of service quality. The SERQUAL instrument assesses overall service quality by making a comparison between service expectations and actual performance along the five SERQUAL dimensions.

While the SERQUAL framework is extensively applied in various service settings, in recent years, however, considerable attempts have been made to conceptualize and measure service quality relative to the demands and unique attributes of a particular service industry, with no exception to the mobile services industry. Given the rapid growth and increased importance of the mobile telephony sector, several attempts have been made to measure service quality as it is perceived by key actors, particularly consumers (e.g., Gerpott et al., 2001; Ayden and Ozer, 2005; Kim et al., 2001; Lim et al., 2006; Lee et al., 2001),. For example, Gerpott et al. (2001) and Kim et al. (2004) measured service quality by the following dimensions: call quality, pricing structure, mobile devices, value-added services, convenience in procedure, and customer support. Lim et al. (2006) used various dimensions including pricing plans, network quality, entertainment services, billing systems, and customer service to measure consumers' perceived quality of mobile services. Furthermore, Chae, Kim, Kim and Ryu (2002) adopted connection quality, content quality, interaction quality, and contextual quality to measure the information quality of mobile networking services. To identify key dimensions for measuring service quality in the Ghanaian mobile network services market, a pilot email survey was initiated. Following this, and in agreement with previous studies, seven items including network connection, network coverage, quality of voice call, customer care service etc., were used as relevant measures of perceived service quality in this study.

Several research studies in different industry sectors have found causal links between service quality, customer satisfaction and customer loyalty (e.g., Cronin and Taylor, 1992; Reichheld and Sasser, 1990; Cronin et al., 2000). Similar conclusions have been identified in studies of mobile telephony services, where positive impact of service quality on customer satisfaction is observed (Kim et al., 2004, Lim et al., 2006; Santouridis and Trivellas, 2010; Wang et al., 2004). For example, Kim et al. (2004) in their investigation of Korea's mobile services sector reported that service quality positively influenced customer satisfaction. Similar outcome was found by Deng et al. (2009) in relation to mobile instant messaging among Chinese consumers.

Numerous scholars have long demonstrated the direct effect on customer loyalty by service quality (e.g., Cronin and Taylor, 1992; Johnson and Sirikit, 2002; Parasuraman, Zeithaml, and Berry 1991).The underlying assumption is that better service quality boost customer's propensity to repurchase again, to buy other ancillary services, to be become less price-sensitive, and to give positive word of mouth about their experience to others (Venetis and Ghauri, 2000). Yet, Kuo et al. (2009) studying undergraduate and graduate students' usage of mobile value added services in Taiwan, however, did not find significant positive effect of service quality on post purchase intentions. Cheng et al. (2008) and Lai et al. (2009) reported similar findings among Hong Kong internet service users' and Chinese telecom consumers, where insignificant relationship was found between service quality and customer loyalty. Meanwhile, Aydin and Ozer (2005) discovered that perceived service quality directly and positively affect customer loyalty. Similarly, Boohene and Agyapong (2011) found a strong positive relationship between service quality and customer loyalty. In general, consumers experiencing better service quality have greater tendency to stay with their service provider over the long haul, buy more, and offer favorable recommendations to others. Therefore, the following hypotheses are advanced:

H2: Perceived Service quality has a direct positive effect on customer loyalty

2.3.2.1 Perceived service quality, customer satisfaction and customer loyalty

A number of empirical findings have found support for the assumption that service quality affects behavioral intentions only through customer satisfaction (e.g., Anderson and Sullivan, 1993; Gotlieb, Grewal, and Brown, 1994). The assumption that satisfaction mediates the quality-loyalty linkage is underpinned by Bagozzi's (1992) argument that initial service evaluations create emotional reaction, which ultimately drives behavior. This implies that service quality and value appraisals precede satisfaction and ultimately intended or actual behaviour, as demonstrated empirically by Cronin et al. (2000). They reported that service quality had an indirect effect on customer loyalty through satisfaction in all six service industries studied. By investigating retail banking customers, Caruana (2002) also found that customer satisfaction played a significant mediating role in the effect of service quality on customer loyalty. Still, within the mobile value-added services sector, Kuo et al., (2009) did not find direct effect of service quality on post-purchase intentions. Instead, they showed that service quality indirectly influenced post-purchase intentions through customer satisfaction. Recently, Turel and Serenko (2006) found among Canadian mobile services consumers that service quality was a key driver of customers' satisfaction which, in turn, influenced the extent of their loyalty. Thus, the assumption that service quality affects customer satisfaction, and ultimately loyalty leads to the following hypothesis:

H2b: Perceived service quality has a direct positive effect on customer satisfaction, and also indirect positive effect on customer loyalty through customer satisfaction.

2.3.3 Perceived Value

Understanding the nature of customer perceived value, and how it affects customer loyalty is a fundamental basis for business strategy since it provides a crucial link between marketing and financial performance (Cretu and Brodie, 2007). Day (1990) claimed that creating superior customer value should reflect the key goal of market-driven firms. According to Holbrook (1994, p.22) customer perceived value is "the fundamental basis for all marketing activity" (cited in Yang and Peterson, 2004, p. 803), as better value constitutes a key motivation for customer repurchase intentions. The concept of customer perceived value has long been considered to be very personal and subjective (Parasuraman et al., 1985). Ravald and Gronroos (1996, p. 21) concluded that "the ultimate aim of adding more value to the core product in order to enhance customer loyalty, will hardly be reached if the value added is not customer oriented." Thus, learning about customer value should be tackled from the standpoint of the customer, since it is the customer and not the service provider who makes assessment of whether or not a product or service provides better value.

While the importance of customer value is widely recognized, there exist different conceptualizations of the construct (Wang and Lo, 2002). Yet the general definition of value reflects a "consumer's perception of the subjective worth of some activity or object considering all the net benefits and costs of consumption (Babin et al., 1994, cited in Lai et al., 2009). Several authors, including Zeithaml, 1988; Monroe, 1991; Whittaker, Ledden and Kalafatis, 2007), have adopted a cost-benefit perspective of customer perceived value, where value is characterized on the basis of a "get for give" notion (Brodie et al., 2009). In this regards, the benefits are what the customer gets, whereas costs are what the customer gives up. According to McDougall and Levesque (2000) the costs include the price paid plus other cost associated with the purchase. Zeithaml (1988, p. 14) describes perceived value as the customer's overall assessment of the utility of a product based on perceptions of what is received and what is given; implying a trade-off between perceived benefits and perceived costs (Lovelock, 2000).

Zeithaml (1988) emphasized the point that what constitutes perceived value is subjective and highly idiosyncratic, and as such varies among consumers. According to Zeithaml (1988), even though what consumers receive in a value exchange varies, some may be particularly interested in volume, others better quality, still others convenience. Also what is given up may vary; some consumers may be concerned only with the price paid, whereas others with the time and effort expended. Therefore, customers who perceive they have received "value for money" are more satisfied than those who do not perceive to have received "value for money" (McDougall and Levesque, 2000).

From the stand point of equity theory, customer-perceived value is based on the evaluation of the relative rewards and sacrifices associated with an offering, derived from a comparison between consumers' outcome/input to that of the service provider's output/input. As inherent in the equity perspective, customers have the tendency to feel equitably treated (e.i., to have received better value) if they perceive the ratio of their outcome to inputs to the ratio of outcome to inputs derived by the company is comparable (Oliver and DeSarbo, 1988). Poor customer value is derived when consumers have the impression that suppliers extract greater value than what they contribute. Usually, competitors' offerings may serve as appropriate benchmark for making such equity evaluations (Yang and Peterson, 2004). So that if a company's input/outcome is perceived to be higher relative to competitors' offerings, lower perceived value is likely to be experienced. Hence, perceived value can be viewed as a relative measure of the costs and other monetary aspects of the service relative to competition (McDougall and Levesque, 2000). This is particularly the case in the telecom sector where cut-throat competition is forcing companies to price their service offerings dramatically lower. And given the fact that switching cost is generally low, and with increased multiple subscriptions, competitors who are perceived to have better price offerings will be equated with providing competitive value, and as a consequence achieve market dominance.

Previous empirical studies have identified perceived value as a major determinant of customer satisfaction and customer loyalty in various industry settings (e.g., Cronin et al., 2000; McDougall and Levesque, 2000). The assumption is that future intentions are partly determined by perceived value (McDougall and Levesque, 2000). This is against the backdrop that the decision to continue business relationship with a service provider is likely to be based on whether or not customers consider themselves to receive better value for what they sacrifice. Anderson and Srinivasan (2003) observed that when perceived value is low, customers would be more likely to switch to a competitor in order to generate better value, thus contributing to declining loyalty. Cronin et al. (2000) demonstrated in their study that perceived value impact customer loyalty positively. Based on these arguments, the following hypothesis is proposed:

H3: Perceived value has a direct positive effect on customer loyalty.

2.3.3.1 Perceived value, customer satisfaction and customer loyalty

This line of argument is further extended to include the idea that when customers believe they have received value for money they are more likely to be satisfied which, in turn, may influence future intentions. According to Bei and Chiao (2001) when consumers perceive that the price of a service or product is reasonable, they are likely to respond through repeat purchase behavior, whereas if they do not perceive what they've received as worthwhile in relation to their sacrifices, they are likely to avoid future repurchase behavior, even when they are satisfied with the quality of the service or product. McDougall and Levesque (2000) investigating four services found that perceived value contributed directly to satisfaction, and in turn, to customer loyalty. Chen and Chen (2010) study of the tourism services market demonstrated that perceived value was a strong predictor of customer satisfaction and behavioural intentions. In the telecommunication sector, Kuo et al. (2009) (focusing on the mobile value added services in Taiwan), Lai et al. (2009) (focusing on the Chinese telecom industry) and Yang and Peterson (2004) (investigating online consumers) all found perceived value to be a strong predictor of customer satisfaction and behavioural intentions or customer loyalty. Thus, the assumption that customer perceived value affects customer satisfaction and ultimately loyalty leads to the following hypothesis:

H3b: Perceived value has a direct positive effect on customer satisfaction, and also indirect positive effect on customer loyalty through customer satisfaction.

2.3.4 Corporate Image

Corporate image is a key element in the overall service evaluation (Lai et al., 2009).The image consumers hold in their minds regarding a company or brand may have considerable effect on their attitudes and/or judgment about a company's overall excellence or superiority. Unlike products, services evaluations pose a great challenge for consumers as it is inherently intangible and process driven. The corporate image, therefore, becomes the lens through which consumers are able to make appropriate judgment regarding the firms overall outlook vis-a-vi other competitors. It affects how people think and relate with the company. A vast body of literature has indicated that firms possessing good corporate image are better able to strategically differentiate themselves since image is linked to a core aspect business success such as customer repurchase or loyalty (e.g. Bloemer, de Ruyter and Peeters, 1998). This makes it very vital for firms to imprint superior image on the minds of their customers through creative use of various marketing communication strategies, and management of service encounters in order to win the battle for a share of their mind space.

Usually used interchangeably with the term reputation, numerous defintions of corporate image have been offered in the past (Barich and Kotler, 1991; Bloemer, de Ruyter and Peeters, 1998; Ngugen and LeBlanc, 1998) Gronroos (1988) and Keller (1993) describe corporate image as the set of associations held about an organization in consumer memory, and which works as a filter to influence the perception of the operations of the company. According to Barich and Kotler (1991) corporate image is "the overall impressions made on the minds of the public about a firm" (cited in Wang, 2010, p. 255). Treadwell and Harrison (1994) also defined it as "an individual's current idiosyncratic representation of a particular organization, including related attitudes, beliefs, and impressions about the organization and its behaviour" (p. 64). And Wan and Schell (2007), from a public relations standpoint, argued that organizational (or corporate) image encompasses "the set of cognitions, including beliefs and attitudes, that people hold about the sum of the entire organization, including the company's products, services, management quality, communication activities, employee orientation, and corporate philanthropy" (p. 28). This study adopts the later definition as basis for the measurement of corporate image since mobile service providers in Ghana widely resort to practices described in the definition to enhance their image.

Attempts to understand how image is formed in people's mind have attracted different propositions (Ngugen and Leblanc, 2001). Yet researchers generally agree that corporate image formation is process oriented. Nguyen and Leblanc (2001, p. 228) observed that corporate image is related to the physical and behavioural attributes of the firm, such as business name, architecture, range of products/services, and to the impression of quality communicated by each person interacting with the firm's clients. It also reflects the publics' evaluations about a company's performance in areas such as management quality, employment orientation, and communication activities (Wan and Schell, 2007). Again, while consumers may not have all relevant information about a firm, information cues obtained from different sources including advertisement and word of mouth will affect the process of corporate image formation (Aydin and Ozer, 2005). In his view, Gronroos (1984) pointed out that corporate image is built mainly by technical quality – what customers receive from the service experience, and functional quality – the process by which the service is delivered. Thus, the content and quality of delivery systems contribute to building corporate image. Corporate image is, as a consequence, an aggregate process by which the public makes an assessment of how firms perform on various attributes (Ngugen and Leblanc, 2001).

By way of predicting an individual's behaviour, Fisbein and Ajzen (1975) attitude theory suggest that belief causes attitude which, in turn, causes intentions to behave. According to them, beliefs are formed when a person associates an object with various attributes, whereas attitude is the function of a person's salient beliefs at a given point in time (Fishbein and Ajzen, 1975, p. 222). In Fishbein and Ajzen's framework, attitude toward an object is regarded as a driving force in forming a person's intentions to engage in a variety of behaviours related to that particular object. In addition, direct experience makes attitude more accessible and, as a consequence, predictive of future behaviours (Lai et al., 2009). Thus, attitudes are functionally related to behavioural intentions, and that intentions are strong predictors of actual behaviour (Fisbein and Ajzen, 1975). Hence, corporate image, conceptualized as attitudinal, must determine behavioural intentions such as customer loyalty (Aydin and Ozer, 2005).

The exact link between corporate image and loyalty has been demonstrated in numerous studies. Nguyen and Leblanc (2001) found that corporate image positively affects customer loyalty in three service sectors namely telecommunication, education and retailing. Andreassen and Lindestad (1998) demonstrated that corporate image determines corporate loyalty in the package tour industry in Norway. Boohene and Agyapong (2011) also found a direct positive effect of corporate image on customer loyalty. On the other hand, there is ample evidence to suggest that the link between corporate image and customer loyalty is mediated by customer evaluative judgments such as satisfaction and quality perceptions, and switching cost. For example, Wang (2010) found that the relationship between corporate image and customer loyalty depended on perceived switching cost, such that as switching cost increased, the relationship between corporate image and customer loyalty reduces considerably. Hart and Rosenberg (2004) found that corporate image has a "marginally significant" direct influence on customer loyalty, yet the effect on customer loyalty by image is significantly mediated by satisfaction. Despite varying accounts of the effect of corporate image on customer loyalty, it is established that favourable corporate image seems to encourage loyalty for a firm. Based on abovementioned reasons, it is hypothesized that:

H4: Corporate image has a direct positive effect on customer loyalty

2.3.5 Switching Costs

Switching costs are considered as key drivers in customer retention or switching decisions. Switching costs are generally described as the costs incurred when switching from one service provider to a competitor, with such costs including time, money and psychological cost (Dick and Basu, 1994). According to Murray (1991) switching costs may also entail perceived risks, to the extent that there are potential losses perceived by customers when switching service providers, such as losses of a financial, performance-related, social, psychological, and safety-related nature (cited in Chen, Lai and Yeung, 2008, p.30). It is assumed that the higher the switching cost the greater the propensity that a customer will be forced to stay with his or her current service provider, despite being dissatisfied or having experienced poor service quality. Fornell (1992) observed that a customer dissatisfied with current service levels is faced with switching barriers or costs when they encounter difficulty in switching due to financial, social and psychological burden experienced by the customer when switching to another service provider.

Switching costs may also include all costs a customer incurs when switching between different brands of products or services (Seo et al., 2008). Some of the factors identified to boost switching barriers include search costs, transaction costs, learning costs, loss of loyalty discounts, loss of established habits and relationships, and risk of the unknown (Fornell, 1992; Klemperer, 1987). For example, by making particular reference to the mobile telephony sector, Kim et al (2004) identified three factors influencing switching cost namely loss cost, adaptation cost, and move-in cost. According to the authors, loss cost refers to the perceived loss in social status or performance, when a customer cancels service contract with an existing carrier; they will be unable to enjoy those services and its perceived attendant benefits again. Adaption loss, on the other hand, refers to perceived cost involved in adapting to a new carrier including search cost, and learning cost. And lastly, move-in cost is the economic cost of switching to a new service provider, e.g., the purchase of a new device and the subscription fees. All these costs, including others, reduce the incentive to switch between brands.

In a similar vein, Klemperer (1987) identified three kinds of switching costs – transaction, learning and artificial or contractual costs. While the transaction costs and learning costs are costs initiated by the customers such as cost incurred when changing carrier or making the effort to become acquainted with new products and/or services to derive the same level of comfort as with the old provider, artificial or contractual costs are those that are intentionally designed by the service provider to lock customers into the relationship (Klemperer, 1987; Seo et al., 2008). This may include such schemes such as loyalty benefits or contractual withdrawal penalties to encourage retention of existing subscribers (Shin, 2006). Essentially, the contractual costs are designed as part of firm strategy to disincentivize subscribers who may want to switch by erecting intentional barriers (Klemperer, 1987).

One important strategy considered to influence customer switching behaviour is interpersonal relationships built through frequent interactions between the service provider and customers (e.g., Kim et al., 2004). Such relationships solidify the bonds between actors and may lead to long term-relationships, making it psychologically burdensome for customers to switch. Jones, Mothersbaugh and Betty (2000) observed that relationship-specific investments enhance customers' dependence and, as a consequence, reinforces the switching barriers they experience.

Altogether, both monetary and nonmonetary factors exert considerable influence on customers perceived switching costs. It is important to emphasize that given the industry conditions some key factors may increase switching costs greatly than others. With the introduction of Mobile Number Portability in many countries, which is assumed to reduce the financial cost of switching, and make it relatively easy for customers willing to switch to other service providers to do so, yet social cost of brand switching (Shin, 2006) may as well exert considerable influence on switching decisions. While switching may appear attractive, especially in the face of customer dissatisfaction or poor service quality, majority of subscribers in the popular media within the Ghanaian telecommunication sector have cited subscriber base commanded by their primary service carrier, and the relative length of relationship on a particular network to influence their switching attitudes. In other words, greater number of subscribers (market share) and longer duration on a particular network (duration of usage) creates switching barriers for subscribers who may otherwise want to switch. Lack of attractive alternative is also identified as a key factor influencing switching intentions (Han, Kim and Hyun, 2011).

To reiterate, when customers perceive alternative providers as not good enough, or similar to their existing provider they are less inclined to switch (Kim et al., 2004; Han, Kim and Hyun, 2011). Lack of superior alternatives or no perceived differences among alternatives may create favourable attitudes towards existing service providers (Han, Kim and Hyun, 2011). Such situation is likely to mask the true nature of customer loyalty since customers who perceive the performance of their existing service provider to be less optimal and unsatisfactory, may continue patronage, when they feel their current provider is somewhat better than competitors. Hence, lack of attractive alternatives may play an important role in customers' switching decisions (Han, Kim and Hyun, 2011).

Thus, when switching cost is perceived to be high, increased customer loyalty is likely to be the consequence. Dick and Basu (1994) suggested that customers may remain with a company not only because of loyalty to the brand, but also due to high perceived switching barriers. Importantly, the effect of perceived switching cost on customer loyalty has been empirically corroborated in various service settings. For example, Kim et al. (2004) found that switching cost had a direct as well as interaction effect with satisfaction to determine customer loyalty. They concluded that customers' were more likely to stay with their existing provider despite being dissatisfied, particularly when overall perceived switching barriers are high. In a study of haircut services, Wang (2010) found that the effect of customer perceived value and corporate image on customer loyalty was reduced under conditions of high switching costs. Cheng, Lai and Yeung (2008) focusing on internet service users in Hong Kong found a direct positive effect of switching cost on customer loyalty. Aydin and Ozer (2005) also in the Turkish telecommunications industry found similar results. Lastly, Liu, Guo and Lee (2011) found that switching barriers led to customer loyalty. Therefore, it is hypothesized that:

H5: Perceived switching cost has a direct positive effect on customer loyalty.

CHAPTER 3

3. METHODOLOGY

The previous chapter gave an overview of the conceptual underpinnings of the research model. Testable hypothesis were also proposed in regard to the influence of the study variables on customer loyalty within the mobile network services industry Ghana. This chapter will, however, touch on issues relating to the research design, sampling, data collection procedures, survey instrument development, and measurement of the study constructs.

3.1 Research Design

The design of the research seeks to outline the blueprint or framework for conducting marketing research project. Three main research designs are broadly classified as casual, exploratory and descriptive designs (Malhotra, 2010). The choice of any type of design is influenced particularly by the research question under investigation. In this study, the objective is to determine the effect of customer satisfaction, service quality, perceived value, corporate image and switching costs on customer loyalty. All hypotheses are framed as *correlations,* and the research design outlines a detailed plan for empirical testing (Ravndal, 2006).

This study adopts descriptive design for the following reasons. Descriptive design follows a quantitative approach where the focus is on headcount or numbers. Quantitative research relates to quantity, and is dependent on large numbers of interviews to achieve robust measurement and make substantial claims. Besides, large numbers of interviews require sufficient structure in the questions, with interviews composed of closed questions instead of open questions.

Whiles descriptive design attempts to determine the proportion of the population that behave or think in a certain way and how much of effect is contributed by each explanatory variable on the outcome, the aim of exploratory design, which is qualitative in nature, is to dig deep into respondents' motivation and experiences by using loosely structured interviewing by a skilled researcher or from a focus group, and with few respondents (Malhotra, 2010). The advantage of the latter method is in its flexibility as an approach which relies heavily on the skills of the researcher to interact with respondents and dig deeper into their experiences. Hence, qualitative approach seeks quality over quantity vice versa.

When the goal of the research is to establish a causal relationship among variables, then an experimental design is implied (Cook and Campbell, 1979). The strength of an experimental design over those discussed above is that possible confounding variables can be controlled during the experiment. It also allows for manipulation of independent variables, and enables comparison across various treatment conditions. However, factors such as assignment of participants into respective experimental conditions, maturation, experience with experiment etc. could undermine the strength of experimental design.

Therefore, the design adopted in this thesis is descriptive, cross-sectional survey design wherein structured questions are used to obtain data from study participants. This research design is well suited since we are interested in how much of effect is contributed individually by the independent variables on the outcome. A cross-sectional design enables the testing of the hypotheses by establishing correlations among variables while controlling for spurious effects (Ravndal, 2006). With this method, the focus is on quantity, and variables are related, no deeper insight from study participants is sought, and manipulation of study conditions is not necessary.

3.2 Sample, data collection and questionnaire development

3.2.1 Demographics

The sample consisted of significantly more men (94; 69.1%) than women (42; 30.9%). The median age category ranged from 25 to 34 years old (70.6%). Respondents with undergraduate and postgraduate degrees accounted for 51.9% and 30.1% respectively. Moreover, majority of respondents were drawn from the regional capital of the country (Accra); hence we observe a relatively large number of respondents accounting for 81.2% of the population, with the second largest region by respondents accounting for barely 7.5%. Finally, of the 140 customers in the analysis, 25.2% (34) have usage duration of more than 6 months but less than 2 years, whereas those who have usage duration of between two(2) to four(4) years and four (4) to six (6) years account for 28.9% of length of use (39) in both situations. Table 1 shows details of respondents' demographics.

Table 1: Respondents profile

Variables	**Frequency**	**%**
Gender	94	69.1
Male	42	30.9
Female		
Age Distribution		
18-24	19	14.0
25-34	96	70.6
35-44	15	11.0
45-54	5	3.7
Over 55	1	0.7
Education		
Senior High (SSSCE)	10	7.5
Higher National Diploma(HND)	5	3.8
Undergraduate degree	69	51.9
Master degree	40	30.1
Other	9	6.8
Duration of Use	3	2.2
Less than 6 months	7	5.2
Over 6 months - less than 2 yrs	34	25.2
2-4 years	39	28.9
4-6years	39	28.9
7-10 years	13	9.6
More than 10 years		
Region		
Ashanti Region	10	7.5
Greater Accra Region	108	81.2
Central Region	3	2.3
Volta Region	3	2.3
Brong-Ahafo Region	1	0.8
Eastern Region	4	0.8
Upper East Region	1	3.0
Western Region	2	1.5
Upper West Region	1	0.8

3.2.2 Online survey advantages

To collect data necessary for investigating the problem, a web-based questionnaire survey was employed in this study. Online survey was selected for data gathering since it has the ability to reach the survey audience instantaneously; defying geographic barriers with just a click of the button. Online survey is efficient to develop and distribute. Second, online survey enables the researcher to track who has taken the survey and the direction of response. Results come in real-time. Instantly, the researcher knows how many respondents have been reached. Unlike paper based surveys, online surveys have the benefit of increasing response rate through reminders with just a click of the button. Finally, online survey gives the researcher control over the results; no data imputation, no missing papers, or respondent hesitation to return filled papers etc. Therefore, online survey was favored.

3.2.3 Data collection procedure

To begin with, a letter of solicitation transmitted by e-mail to 723 respondents selected from e-mailing list, and social media platforms (i.e., Facebook and LinkedIn) was used. The emailing list as well as social media contacts comprised mobile phone subscribers, some of which were personally known to the researcher, while others were recruited at random. Similar approach was used by Torel and Serenko (2006) where mobile phone users personally known to the researchers were arbitrarily chosen to participate in their study.

The e-mail detailed out the research objective, with an invitation for each receiver to take part in the survey. With regards to social media, the invitation e-mails were sent directly into respondents inbox instead of their main page in order to control for who responded to the study. Respondents were required to follow the URL address provided in the e-mail invitation to submit their responses. Anonymous links was used for the invitation e-mails to distribute the questionnaire survey. The selection of the sample was based on convenience sampling approach; i.e., dependent on the researchers' judgment of those deemed suitably placed to comment on the subject matter (Malhotra, 2010). Again, such individuals were contacted via e-mail, Facebook and LinkedIn. The samples are general Ghanaian mobile network service consumers who are currently subscribed to mobile services.

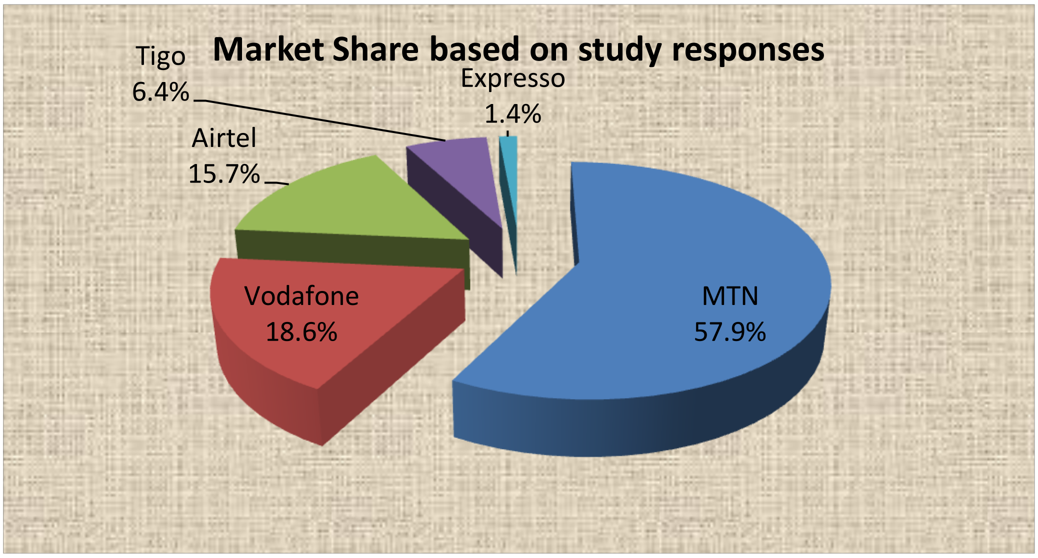
Additionally, using a "snowball" approach, respondents were asked, having finished answering the questionnaire, to forward the e-mails to contacts they knew. This was possible due to the anonymous link unlike the panel distribution approach that was adopted. Panels are pre-determined email contacts the researcher assembles to serve as survey audience. The Qualtrics software suite was used for data collection. Before initiating the survey, the questionnaire was pre-tested with a convenience sample of 15 respondents, including the research supervisor, to examine the questionnaire design in terms of the clarity, readability, and understandability of all the items and instructions used (Lim et al., 2006). Moreover, two industry experts from the Ghanaian mobile services sector reviewed the questionnaire to determine its face and content validity. Feedback from the pre-test participants and industry experts was used to refine the questionnaire.

While the sampling procedure adopted in this research has limitations in regard to generalizability relative to other probabilistic methods of sampling, it was assumed that the sample duly served as a representation of the whole population of mobile network services consumers in Ghana. No single identifiable group became the focus of study as attempts to use institutional or group contact emails failed, neither was it possible to contact respondents through the network providers. While response rate is difficult to ascertain on the assumption that some participants would forward the survey to friends, about 723 invitation e-mails were originally sent through traditional e-mails, Facebook and LinkedIn platforms. The survey was conducted over a four-week period; from February 15 to March 20, 2012. With 169 respondents starting the survey, representing 80% click-through rate. Responses with over 50% missing data were excluded from the analysis. Overall, 140 usable questionnaires were obtained for data analysis. The respondent's distribution in terms of the mobile telecom operators' share of the market is presented in fig 3 on next page.

3.2.4 Ethical considerations

Ethical standards for collecting and storing personal data as per regulations from the Norwegian Social Sciences Data Services (NSD) were complied with. As such, this project ensured that responses were treated with strict confidentiality, and that personal data were made anonymous in all reporting in this study. It was also emphasized in the email invitation that participation was voluntary. Lastly, it was indicated that all data material will be made anonymous and deleted after project end; this involves directly and indirectly indentifying data (connections to name/emails, addresses and background information).

Fig 3: Market Share based on study responses



3.2.5 Instrument Development

The questionnaire for the study was broadly divided into two parts; part A and part B. Respondents were initially required to indicate their primary network preferences, as multiple subscriptions is commonplace in Ghana. Part A was composed of the measurement constructs (i.e., the latent variables) with items including customer satisfaction, customer loyalty, service quality, perceived value, corporate image and switching cost, whereas part B contained questions relating to respondents' demographic information – age, gender, education, duration of subscription to network, and region of residence. Table 6 gives an overview of the items particular used for measuring the constructs (i.e., the latent variables).

When developing a scale to measure a marketing construct, it is important that such constructs are succinctly defined and distinguished from other constructs included in the study (Netemeyer et al. 2003). Constructs that are adequately operationalized help in determining what kind of items deemed fit to be included in the scale development; which also improves the adequacy of the scale in reflecting the construct. Generally, the degree to which a scale is considered as adequate is determined by how valid and reliable the scale is.

The validity of a scale may be defined as the extent to which the scale measures what it is supposed to measure (Coolican, 1999). While different validity typologies have been distinguished, construct validity which includes convergent, discriminant and nomological validity is considered, since both convergent and discriminate validity are easily identified using statistical tools such as factor analysis. Convergent validity deals with the extent to which the scale correlates positively with other measures of the same construct, whereas discriminant validity refers to the extent to which measures does not correlate with other constructs from which they are supposed to differ. It reflects a lack of correlation among differing constructs (Malhotra, 2010). Scale validity is usually robust when sample size is considerably large.

On the contrary, reliability is defined as the 'degree of inter-relatedness among a set of items designed to measure a latent variable.'(Netemeyer et al, 2003). The coefficient alpha or Cronbah's alpha is usually used to determine reliability of scale items. The coefficient varies from 0 to 1, with a value of 0.6 or less generally considered unsatisfactory internal consistency reliability (Malhotra, 2010). An important feature of Cronbrach's alpha is that its value tends to increase with an increase in the number of scale items. Hence, multiple items measuring a construct tend to improve the reliability.

3.3 Measures

Items for measuring the constructs in this study are based on previous studies. All the factors in the study were measured with a multi-item measurement scale. Items adapted from previously validated studies were used either verbatim to preserve its original meaning or rephrased in an easy-to-understand language. All the constructs were measured as weighted average of multiple indicators, since they are treated as abstract and theoretical phenomenon (Andreassen, 1997). In this regard, measurement errors in the index are compensated for given the quality and quantity of the measures being adopted (Fornell, 1989, cited in Andreassen, 1997). Consequently, customer loyalty, customer satisfaction, perceived service quality, perceived value, corporate image and switching costs were all measured with multiple indicators. A description of the measures is presented in preceding sections.

3.3.1 Customer loyalty

Theory indicates that enhancing customer retention, or importantly lowering the rate at which customers defect, is crucial key to the ability of a service provider to generate meaningful growth (Zeithaml, Berry, and Parasuraman, 1996). Precisely, Zeithaml, Berry, and Parasuraman (1996) suggestion that favourable behavioural intentions regarding a service provider will make the customers 1) say positive things about the company, 2) recommend them to other consumers, 3) remain loyal to them (e.i., engage in repeat purchase), 4) spend more with the company, and 5) pay price premium.

Based on this reasoning, the five-item scale used by Aydin and Ozer (2005) was adapted to the Ghanaian telecom sector. Consequently, four items are adapted to measure customer loyalty to a network provider, with operational measures comprising (1) repurchase intentions (e.i., I will continue using my primary service provider, and I will still choose my primary service provider if I had to do it all over again, and (2) willingness to recommend (i.e., I will recommend my primary service provider to anyone who seeks my advice). A seven-point Likert-type scale format was used ranging from 1 "strongly disagree" to 7 "strongly agree." Internal consistency, i.e., the Cronbach alpha value for customer loyalty was 0.90, reflecting high construct reliability.

3.3.2 Customer satisfaction

Due to its potential effect on customer behavioural outcomes (e.g., Cronin and Taylor, 1992; Anderson and Sullivan, 1993; Fornell, 1992; Cronin et al., 2000; Oliver, 1980), customer satisfaction has attracted significant amount of attention in the literature. Rust and Oliver's (1994) definition of satisfaction reflects the degree to which a consumer believes that the possession a product and/or use of a service stimulates positive feelings. Smith (2007) has suggested that the measurement of satisfaction involves three psychological elements for the evaluation of the product or service experience: cognitive (thinking/evaluation), effective (emotional-feeling/like-dislike), and behavioral (current/future actions). Since satisfaction is described as being an evaluative as well as emotion-based response to a service experience (Oliver, 1997; Cronin and Taylor, 2000), this study adopts a similar approach.

Hence, two set of items are used, with the first set reflecting the "evaluative measure," which highlights the overall opinion of a consumer's experience with the service encounter. This is an appraisal or conclusion that the product or service was useful, fit the situation or exceeded the requirements of the situation/problem (Smith, 2007). The second set of item is the “emotion-based” measure which captures the consumer’s overall emotional feelings towards a product performance or service encounter. The items were adapted from Lam et al., (2004), and Malhotra (2010). This factor was scored on a seven-point Likert-type format ranging from 1 “strongly disagree” to 7 “strongly disagree.” The Cronbach alpha value for customer satisfaction was 0.86.

3.3.3 Perceived service quality

The service quality construct has been widely conceptualized as a consumer’s appraisal of a services overall excellence or superiority (e.g., Zeithaml, 1988). Recently, several empirical studies have adopted this definition. Importantly, the measurement of service quality (SQ) construct with the expectation-oriented SERQUAL index and/or the popularized performance based SERVPERF index are congruent with this conceptual definition (Ranaweera and Neely, 2003). While numerous studies in the services literature have followed the SERQUAL scale in measuring the SQ construct, this study used specific items which were perceived as relevant for the industry settings. Notwithstanding, some of the selected items were informed by the SQ measures. In the current study, perceived service quality is measured as an attitudinal construct with some performance-based measures from Cronin, Brady, and Hult (2000) serving as background for the scale construction.

Prior to the study, an e-mail interview was initiated to identify those items customers perceived as key elements in their evaluation of service quality. Respondents were asked, in an open ended fashion, to state “what factors or characteristics of their mobile service provider do they consider important for using their services.” The pilot exercise was based on the suggestion by Cronin and Taylor (1992) that scale items that define service quality in one industry may be different in another. Consistently, factors such as network quality, network coverage, network connection, voice call quality, quickness in complaint handling etc. were cited by respondents as among items perceived as critical to service quality evaluations. These items are consistent with the factors adopted by Lim et al. (2006) in their conceptualization of mobile service quality. The authors maintained that a comprehensive set of well-established scales for mobile service quality is nonexistent. Thus, the exploratory nature of their mobile service quality measure informed the path adopted in this study. The work by Gerpott et al. (2001) was also consulted in the selection of industry specific measures.

While several dimensions were adopted by Lim et al. (2006) to measure mobile service quality including network quality, billing system, data services etc, this study adopted four network quality factors (overall network quality, coverage, connection, voice call quality) as well as four performance-based elements to measure (customer care service, promptness in complaint handling, ease of access to call center, and service personnel ability to handle problems) to measure perceived service quality in the mobile service sector. Altogether eight items measured perceived service quality. These items were also adapted from Lim et al. (2006) and Gerpott et al. (2001). All the items were scored on a Likert-type scale format. Using eight (8) items in all, respondents assessed perceived service quality using a 7-point Likert-type scale, anchored from "very bad" (1) to" very good" (7). The internal validity of perceived service quality, i.e., Cronbach alpha score was 0.82.

3.3.4 Perceived value

Value is conceptualized as consumer's perception of the subjective worth of some activity while considering all the net benefits and cost of consumption (Babin et al., 1994; Zeithaml, 1988). It is the overall benefits/price assessment, i.e., benefits given price. It reflects consumers' perceptions of the monetary and the non-monetary sacrifice associated with the acquisition and use of a service or product (Bei, and Chiao, 2001).

To measure perceived value, respondents were asked to comment on two statements, e.g., "my service provider offers good value for money," and "my service provider offers overall better pricing plan compared to its competitors." These measures were adapted from Lim et al. (2006), Cheng et al. (2008), and Kuo, Wu, and Deng (2009). Both measures also used 7-point Likert-type scale, anchored at "strongly disagree" (1) to "strongly agree." The Cronbach alpha value was 0.84, showing good construct reliability.

3.3.5 Corporate Image

Corporate image is conceptualized as an overall impression held by consumers regarding the company. In this study, no attempt was made to distinguish between corporate image and corporate reputation, as both reflects the overall impression that is made on the minds of the public by the company (e.g., Barich and Kotler, 1991). While there is lack of consensus on the valid scales for measuring corporate image, in the current study, the operationalization by Nguyen and LeBlanc (2001) formed the basis for measurement.

Hence, this construct was measured by adapting four items from Nguyen and LeBlanc (2001), Aydin and Ozer (2005), and Cheng et al. (2008). For example, respondents were asked to assess the following statements, “my service provider is innovative and forward looking,” “my service provider takes social responsibility seriously,” and “my service provider has a positive image in the minds of consumers.” Similarly all items were measures also used 7-point Likert-type scale, anchored at “strongly disagree” (1) to “strongly agree.” The Cronbach alpha value was 0.82, indicating high construct reliability.

3.3.5 Switching costs

For the purpose of this study, switching cost is conceptualized as consumer perception of the time, money and effort required in changing service providers (Jones, Mothersbaugh, and Beatty, 2000) Murray (1991) described switching cost as the risks in terms of potential losses perceived by customers when changing service providers, with such losses including financial, performance related, social, psychological and safety-related nature. Hence, all those factors making it more difficult or somewhat costly, in both monetary and nonmonetary terms, for consumers to change service providers constitute switching cost.

In this regard, perceived switching costs were measured by three items adapted from Jones, Mothersbaugh, and Beatty (2000) and Wang (2010). Some of the operational measures include “the cost in time and effort for changing my current service provider will be high for me,” and “switching to another provider will bring economic loss to me.” All items were measured on 7-point Likert-type scale, anchored at “strongly disagree” (1) to “strongly agree.” The Cronbach alpha value was 0.74, indicating fairly strong construct reliability.

3.4 Methodological issues

Cross-sectional survey design, while it affords several benefits, including being time efficient, allowing for quantification of data, comparison between groups, and detailed analysis of association among factors in a study, could as well be fraught with some setbacks. Some of the challenges include social desirability bias in responses, lack of external validity of study results, and inability to claim causality which is only possible with experimental or causal designs. Cross-sectional design can only make claims of possible associations among variables.

Particularly, causality cannot be inferred in this study; it cannot be claimed that, in fact, all the independent variables are actually the cause of customer loyalty among Ghanaian mobile network subscribers. Based on the research design adopted, it can only be said that the variables are related. Collecting data at multiple time intervals, and using the same research participants under controlled experimental conditions would allow for causal inferences to be made about cause-and-effect imposed by the dimensions. In this case, a longitudinal study will suffice.

With regards to sampling procedures, data was collected via online route making it rather difficult, if not impossible, to give a comprehensive account of the nature of respondents and their setting. No single identifiable group was recruited as research sample. All users of mobile telecommunication services in Ghana perceived to be internet savvy were targeted as potential research respondents.

Moreover, no information exists on validity scores in this thesis. Only reliability figures are reported. This stems from the fact that there were problems with the factor loadings in terms of discriminant and convergent validity. For example, there was lack of discriminant validity between customer loyalty and customer satisfaction factors. Items belonging to both variables converged on one factor. While the rest of items show minimal problems as far as the loadings were concerned, some items also exhibited cross-loadings, with their elimination further exacerbating the situation. The expectation is that the validity results would have been robust with a large sample, hence their exclusion.

CHAPTER 4

4. RESULTS

In chapter two, the conceptual framework and various hypotheses were advanced in regard to the anticipated changes in customer loyalty connected to variations in satisfaction, perceived service quality and the other explanatory variables. Research design issues and data gathering techniques highlighted in Chapter three. This chapter presents the main findings of the study by testing each hypothesis in turn.

4.1 Bivariate Correlations

Table 2 presents the descriptive statistics and the correlations coefficients among study variables. The results revealed that all the study variables depicted satisfactory and relatively high associations, with the exception of the relation among switching cost, customer satisfaction and customer loyalty which were insignificant. Customer loyalty revealed fairly satisfactory correlations among four factors ranging from ($r = .58$ to $.67$). Also, corporate image correlated strongly with perceive value ($r = .69$), and perceived service quality ($r = .67$). The strong correlation between corporate image, perceived value and service quality could be explained by the fact that customers who receive better quality service at competitive prices are likely to have a positive attitude toward a mobile network carrier. With regards to the demographic variables, a significant negative correlation was observed between gender and customer satisfaction ($r = -.18$), and between duration of use of network provider and perceived value ($r = -.20$), with the latter open to varied interpretation such as the idea that short-term users more likely to perceive better value as they are new to the carrier and have not had the opportunity to be open to the dynamics of their service offerings.

4.2 Testing Main and mediation effects in multiple regressions

While there are several statistical techniques for testing correlation hypotheses, this study adopted regression analysis since the emphasis in on testing the strength, direction and relative importance of each variable while exercising statistical control over some variables. Also, both the dependent and independent variables are continuous. Moreover, multiple regression analysis was used for testing mediation. Consumer satisfaction was treated as a mediator for perceived service quality and perceived value. Mediation is observed when an intervening variable surface between the time the independent variable starts operating to influence the dependent variable and the time their impact is felt on (Hair et al., 2010). Baron and Kenny (1986) outlined the following requirements that must be met in order to say a mediation relationship exist: (1) a significant effect of regressing the mediator on the independent variable, (2) a significant effect of regressing the dependent variable on the independent variable, and (3) while regressing the dependent variable on both the mediator and the independent variable, the effect of the independent variable must be weaker than in Equation 2. (Baron and Kenny, 1986, cited in Bei, and

Chiao, 2001 p.133). Once all these conditions are met, the mediation model is supported. Baron and Kenny further argued that maximum mediation effect (i.e., full mediation) is achieved when the independent variable "drops out," which is to say becomes insignificant in Equation 3.

The above is presented mathematically below:

Step 1: Regress mediator on the independent variable

$$\beta \ should\ be\ significant\ in: \quad Y = \beta_0 + \beta X + e$$

Step2: Regress dependent variable on independent variable

$$\beta \ should\ be\ significant\ in: \quad Z = \beta_0 + \beta X + e$$

Step 3: Regress the dependent variable on both the mediator and the independent variable

$$\beta_1 \ should\ be\ significant\ in: \quad Z = \beta_0 + \beta_1 X + \beta_2 Y + e$$

$$\beta_2 \ should\ be\ smaller\ in\ absolute\ value\ than\ the\ original\ mediation\ effect$$

In step 3, we confirm that the mediator is a significant predictor of the dependent variable while controlling for the effect of the independent variable.

Table 2: Means, Standard Deviations, Reliabilities, and Correlation Matrices

	Means	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
1. Customer loyalty	4.53	1.53	**0.90**										
2. Customer satisfaction	4.50	1.53	0.67**	**0.86**									
3. Perceived service quality	5.07	0.85	0.58**	0.55**	**0.82**								
4. Perceived value	4.04	1.67	0.67**	0.56**	0.60**	**0.84**							
5. Corporate image	4.84	1.22	0.60**	0.47**	0.67**	0.69**	**0.82**						
6. Switching cost	3.40	1.38	0.19	0.07	0.18*	0.21*	0.29**	**0.74**					
7. Gender			-0.10	-0.18*	0.11	-0.04	-0.02	0.06	__				
8. Age			0.07	0.10	-0.06	0.02	-0.02	0.03	-0.04	__			
9. Education			-0.03	0.06	0.05	0.04	0.16	0.14	-0.10	0.15	__		
10. Duration of use			-0.15	-0.16	-0.00	-0.20*	-0.04	0.02	0.12	0.29**	0.06	__	
11. Region			0.02	0.07	-0.02	0.01	0.02	0.04	-0.14	-0.04	-0.05	-0.06	__

Note: $**p<0.01; *p<0.05, N=140$; Chronbach's alpha coefficients are presented on the diagonal in bold.

4.3 Determinants of customer loyalty

Multiple regressions were performed to test both main effects and mediation relationships. In determining the effect of each of the independent variables, customer loyalty was regressed on measures including customer satisfaction, perceived service quality, perceived value, corporate image, and switching cost. Specifically, two separate regression models were estimated. The first model contained the variables customer satisfaction, corporate image and switching cost. They were used to assess their direct effect on customer loyalty. In a separate model, customer loyalty was regressed on perceived service quality and perceived value, with customer satisfaction serving as a mediator. Table 3 is used to test main effects, whereas table 4 shows results for both direct and mediation effects.

Table 3: Multiple Regression results for testing Direct effects on Loyalty

Variables	Coefficients	t-values
Constant	-	.01
Customer satisfaction	.49	7.38**
Corporate Image	.35	5.08**
Switching cost	.06	.90
F-statistic = 52.63**		
Adjusted R^2 = 0.53		

** Significant at p<0.01, N **= 140**

4.3.1 The effect of customer satisfaction on customer loyalty

Customer satisfaction, together with corporate image and switching cost will be dealt with under table 3. The results concerning corporate image and switching costs, which are also contained in table 3 will be discussed in later sections.

Testing of H_1: Hypothesis 1 proposes a direct positive effect of customer satisfaction on customer loyalty. The empirical finding in this model confirms that customer satisfaction was significant in predicting customer loyalty ($F = 52.63$, $p < 0.01$), with the overall model accounting for 53% of the variance explained. A look at the Beta (β) coefficients show that customer satisfaction made the greatest impact in the model, accounted for 49% of the explained variance. The results suggest that the relationship between customer satisfaction and customer loyalty is positive and significant for mobile networks services in Ghana.

Hence, Hypothesis 1 is supported. Previous studies have also reported similar findings (e.g., Cronin et al. 2000; Gerpott et al. 2001; Kuo et al., 2009; Lim and Parks, 2006).

Table 4: Multiple Regression results for testing Direct and Mediation effects

Independent variables	Coefficients	t-values
Model 1	**Customer Satisfaction**	
Service quality	.30	3.52**
Perceived value	.38	4.39**
F- statistic = 39.14**		
Adjusted R^2 = 0.36		
Model 2	**Customer loyalty**	
Service quality	.27	3.49**
Perceived value	.51	6.61**
F-statistic = 65.18**		
Adjusted R^2 = 0.49		
Model 3	**Customer loyalty**	
Service quality	.16	2.13*
Perceived value	.37	4.90**
Customer satisfaction	.37	5.27**
F-statistic = 61.40**		
Adjusted R^2 = 0.57		

*signifies p<0.05; ** signifies p<0.01; **N = 140**

4.3.2 Relationship between perceived service quality, customer satisfaction and loyalty

The results of the regression equations necessary for testing both main effects and mediation are shown in Table 4. All conditions required for mediation to hold are present. As was previously pointed out, the first model regresses customer satisfaction on perceived service quality, and perceived value. The second model regresses customer loyalty on perceived service quality, and perceived value. In the last model, customer loyalty is again regressed on the two independent variables as well as customer satisfaction. All three models were significant in explaining their respective outcome variables, ($F = 39.14$, $p <$

0.01), ($F = 65.18$, $p < 0.01$), and ($F = 61.04$, $p < 0.01$) respectively. Again, each model significantly accounted for 36%, 49%, and 57% respectively of the total variance explained, measured by the adjusted R^2.

Testing H_2 and $_{H2b}$: First, Hypothesis 2b proposes that customers' perceived service quality has a positive main effect on customer loyalty. The results of the regression model 2 show that perceived service quality has a direct positive effect on loyalty ($t = 3.49$, $p<0.01$). Perceived service quality accounted for 27% of the explained variance. Hence, H_2 is supported. This finding is consistent with prior research where it was concluded that service quality is antecedent of customer loyalty (Rust and Oliver, 1994)

The second hypothesis (H2b) proposes that first perceived service quality will affect satisfaction directly and, in turn, affect customer loyalty indirectly through satisfaction. In model 1, service quality has a significant effect on customer satisfaction ($t = 3.52$, $p<0.01$), and accounted for 30% of the explained variance in loyalty, showing that service quality has direct positive effect on customer satisfaction. As has already been established, service quality affected customer loyalty directly ($t = 3.49$, $p<0.01$). Yet in model 3, the effect of service quality on customer loyalty is much less ($\beta = 0.16$) than in model 2 ($\beta = 0.27$). The reduction in coefficient values in indication that the influence of service quality on customer loyalty is partially explained by customer satisfaction. The adjusted R^2 has improved 57% compared to 49% in model 2. While full mediation cannot be claimed as the beta for perceived service quality in model 3 is still significant ($t = 2.13$, $p<0.05$), mediation effect can still be assumed as the beta value has declined considerably. This reflects the fact that, when satisfaction is introduced in model 3, the effect of service quality on customer loyalty reduced considerably, confirming its indirect effect on customer loyalty.

Putting all three models together, the effect of service quality on both satisfaction and loyalty is confirmed. First, perceived service quality directly impacts customer loyalty. It also directly impacts customer satisfaction, and through satisfaction again acts on loyalty). This is evidenced by the weakened impact of service quality on loyalty through satisfaction in Model 3. The results imply that perceived service quality has direct effect on both customer satisfaction and loyalty but at the same time indirect effect on customer loyalty through customer satisfaction.

4.3.3 Relationship between perceived value, customer satisfaction and loyalty

Testing H_3 and $_{H3b}$: Similar procedure was used to explain the interaction between perceived value, customer satisfaction and customer loyalty. First, Hypothesis H_3 postulated that perceived value affects customer loyalty positively. The regression equation shows that this is significant ($t = 6.61$, $p< 0.01$) in model 2. In addition, Hypothesis H3b postulated that perceived value will affect satisfaction directly and, in turn, affect customer loyalty also through satisfaction. In model 1, it is noted that perceived value has a significant effect on customer satisfaction ($t = 4.39$, $p<0.01$) by accounting for 38% of the explained variance in loyalty, implying that perceived value has a direct positive effect on customer satisfaction. Perceived value accounted for slightly larger proportion of explained variance in customer satisfaction, 38% compared to 30% attributable to perceived service quality. This finding is consistent with previous findings satisfaction studies. Turel and Serenko (2006) reported a significant main effect of perceived value on satisfaction among Canadian mobile phone users.

Moreover, it was observed that perceived value had a direct effect on customer loyalty in model 2 ($t = 6.61$, $p < 0.01$), as well as in model 3 ($t = 4.90$, $p < 0.01$). However, by contrasting models 2 and 3, it is observed that while the beta coefficient of perceived value is high is model 2 ($\beta = 0.51$), this value reduces substantially when customer satisfaction is introduced as additional independent variable in model three, weakening the beta coefficient to ($\beta = 0.37$) in model 3. The reduction in coefficient values is indication that the influence of perceived value on customer loyalty is partially explained by customer satisfaction.

Meanwhile, the fact that perceived value is significant ($\beta = 0.37$, $p < 0.01$) in model 2 is evidence that it has direct effect on customer loyalty. Altogether, the effect of perceived value on both satisfaction and loyalty are confirmed. That is, first, perceived directly impacts customer loyalty. Second, perceived value directly impacts customer satisfaction, and through satisfaction influences customer loyalty. The indirect effect is evidenced by the reduced impact of perceived value on loyalty through customer satisfaction. The results imply that perceived value has direct effect on both customer satisfaction and loyalty, but at the same time indirect effect on customer loyalty through customer satisfaction. These findings are corroborated by previous reported studies supporting the claim that perceived value affects customer loyalty directly (e.g., Bei and Chiao, 2006; Cronin et al., 2000; Turel and Serenko 2006). Support for the results indicating that perceived value indirectly affects customer loyalty through satisfaction have also been reported in the literature (e.g., Chen and Chen, 2010; Turel Serenko, 2006; Kuo et al., 2009, Yang and Peterson, 2004).

4.3.4 The effect of Corporate Image on customer loyalty

Testing of H_4: Hypothesis 4 proposes that corporate image will affect customer loyalty positively. In table 3, the model reveal that corporate image was a significant predictor of customer loyalty ($F = 52.63$, $p < 0.01$), with the overall model accounting for 53% of the variance explained. Inspection of the beta (β) coefficients shows that corporate image accounted for 35% of the variance in customer loyalty. Hence, Hypothesis 4 is supported. While several researchers have confirmed that a positive relationshipexist between corporate image and customer loyalty (e.g., Andreassen and Lindestad, 1994; Ngugen and LeBlanc, 2001; Boohene and Agyepong, 2011), others including Aydin and Ozer (2005) have found a lack of association between the two. Based on this study, it can be concluded that users of mobile phone services consider the reputation or image of the provider as critical in their choice to remain loyal.

4.3.5 The effect of switching cost on customer loyalty

Testing of H_5: Hypothesis 5 postulates that perceived switching costs affect customer loyalty positively, such that the higher the switching cost the more the likelihood that mobile phone subscribers will remain loyal. However, results from table 3 reveal that switching cost was not a significant predictor of customer loyalty ($\beta = 0.06$, $p = 0.37$). Hence, Hypothesis 5 is not supported. The findings suggest that customers do not consider switching cost as a key factor to influence their loyalty intentions and actual behavior. This implies, in effect, that even if customers should face significant switching costs, they do not consider such factors to influence their loyalty. This finding is incongruent with a number of previous studies which has reported significant association between switching cost and customer loyalty (e.g., Aydin and Ozer, 2005; Cheng, Lai and Yeung, 2008; Liu, Guo and Lee, 2011). One factor that may explain this situation is the recent implementation of Mobile Number Portability in Ghana, with the aim of eliminating switching barriers substantially.

Table 5: Summary of Hypotheses and Results

Hypothesis	*Relationship*	*Results*
H_1	Customer satisfaction has a positive effect on customer loyalty	Supported
H_2	Perceived service quality has a positive effect on customer loyalty	Supported
H_{2b}	Perceived service quality has direct positive effect on satisfaction, and also indirect positive effect on loyalty through satisfaction	Supported
H_3	Perceived value has a positive effect on customer loyalty	Supported
H_{3b}	Perceived value has direct positive effect on satisfaction, and also indirect positive effect on loyalty through satisfaction.	Supported
H_4	Corporate image has a positive effect on customer loyalty	Supported
H_5	Switching costs has a positive effect on customer loyalty	Not supported

4.4 Customer Perceptions Mobile Number Portability (MNP)

As part of the research aims, this study sort to investigate consumer views of the MNP and try to understand whether or not they would take advantage of it. The background to this investigation is due to the expected increase in actual switching behaviour following the MNP adoption. Hence, respondents were asked to indicate their likelihood of porting (i.e., switching) their number from their current service provider to another. The results are presented in Table 6 below.

Table 6: Results of Mobile Number Portability (MNP) Intentions

#	Answer		Response	%
1	Very Unlikely		17	12%
2	Unlikely		15	11%
3	Somewhat Unlikely		11	8%
4	Undecided		28	20%
5	Somewhat Likely		24	17%
6	Likely		25	18%
7	Very Likely		22	15%
	Total		**142**	**100%**

The results show that with a total of 142 respondents, as much as 33% percent of the respondents showed a strong propensity to port – represented by the likely and very likely group, whereas 23% said they were not considering porting their number – represented by the unlikely and very unlikely group. Also, a greater percentage of respondents (45%) demonstrated high uncertainty; they are unsure whether or not to port their numbers, though it was a possibility.

While this data may be scant in representing the actual intentions of the whole population of mobile phone subscribers, a number of important insights could be drawn from it. Based on the results, it is assumed that three groups are likely to be present – those with favourable intentions toward porting, those without porting intentions, and the undecided group. Those with positive intentions toward porting their original numbers could be customers who are highly dissatisfied with present levels of service and would want to try another carrier. They may also be frequent brand switchers demonstrating variety-seeking behaviour (Hoyer and MacInnis, 2010). It is assumed that Glo Mobile, which launched operations later part of 2011, may attract a greater percentage of such customers.

On the other hand, customers who are less likely to port to another network carrier are those who may be loyal customers, or those who feel all the network providers are basically the same and hence switching might not have a significant impact on their service experience. Such customers usually feel there are not superior alternatives available and porting might not make much difference (Han, Kim and Hyun, 2011). As such they may exhibit low effort into seeking out better alternative. Lastly, the undecided group may be particular consumers who lack sufficient information about the benefits of MNP, and are unable to make a firm decision on porting. Inertia and personal indifference may play key roles (Ranaweera and Neely, 2003) Perceived risk of porting could also undermine their ability to experiment with the system. Thus, those consumers who would not port or have less probability of porting may also reflects some of sort of buyer dependence on the provider since the need to maintain long-term relationship with the service provider is critical to the overall service experience(Lam et al. 2004). Ultimately, each of these groups may require critical marketing attention; to either encourage those likely brand switchers to switch or disincentivize customers from switching. For those customers who are undecided, it is important to emphasize key brand attributes that make it appropriate to remain loyal.

CHAPTER 5

5. DISCUSSION AND CONCLUSION

In the previous chapters, the rationale and objectives of the study were outlined, followed by theoretical underpinnings of the proposed model and hypothesis development. Methodological approaches and results of the study have also been reported. In this last chapter, a detailed discussion of the results, together with implications of the findings for research and practice will be identified. The concluding part will concentrate on limitations of the study and direction for future research.

5.1 Discussion

The findings in this study provides vivid insights into the complex interrelationships among customer satisfaction, perceived service quality, customer perceived value, corporate image, switching cost and customer loyalty dimensions. The data was analyzed using multiple regression analysis. The results generally indicate that while majority of the factors are significant in their interaction with customer loyalty, switching cost was not significant. Broadly, the results are discussed in the following sections.

5.1.1 The effect of customer satisfaction on customer loyalty

In this study, it was found that customer satisfaction had a significant positive effect on customer loyalty. This finding is in support of previous studies (e.g., Anderson and Sullivan 1993; Anderson, Fornell and Leymann 1994; Cronin et al., 2000; Hutchinson et al., 2009) that highly satisfied customers maintain deeper loyalty toward their network service providers. Importantly, the results give credence to the assumption that satisfied customers are good for service providers than unsatisfied customers. Recently, researchers investigating the satisfaction-loyalty link within the mobile telecommunication services sector have also reported similar findings (e.g., Lim and Park, 2006; Gerpott et al. 2001; Liu et al., 2011; Kuo et al., 2009), that customer satisfaction was a strong predictor of customer loyalty. For example, Liu et al. (2011) investigating Taiwan's mobile services sector indicated that satisfied customers not only had greater propensity to stay with their network carrier, but also were more willing to recommend them to others.

Clearly, ensuring that mobile network subscribers experience higher levels of satisfaction will make the firm profitable, overall. The profitability accruing from satisfied customers stems from the fact that there is higher turnover and replacement cost among less satisfied customers (Anderson, Fornell, and Leyman, 1994). Moreover, the acquisition cost and the daunting task of winning over already satisfied customers involved with a competitor brand makes customer satisfaction a desirable marketing benchmark to aim for. Importantly, when customers are satisfied with the overall service offering, they are more likely to be tolerant should there be any unintended service failures. On the contrary, customers who have repeatedly experienced poor services may not even recognize, or appreciate it when services are enhanced somewhat. Such categories of customers are easy targets for competitor brands.

Given the recent adoption of Mobile Number Portability facility in Ghana, it is very crucial to emphasize the need for network service providers to concern themselves with higher levels of customer satisfaction. Brown and Gulycz (2002) recognized that satisfaction should be viewed as an important competitive weapon as traditional approaches to differentiation such as product/service features, pricing and distribution strategies were inadequate. Mobile carriers in Ghana will win the battle for customer mind and wallet space if they place much emphasis on making customers satisfied with their offerings.

Boohene and Agyapong (2011) argued that, while mobile phone users in Ghana were generally dissatisfied, they continued their relationship with their primary service provider. Such negative association is widely reported in the popular media in Ghana where majority of customers complain about their displeasure with levels of services quality, yet are unable to do anything due to lack of attractive alternatives. However, the fierce competition among the players has injected some sanity into the mobile services sector, with record improvements in service quality levels, which has resulted in some improvement in customer satisfaction. Overall, this study has shown that improvement in customer satisfaction affects customer loyalty positively. And since service quality is widely considered as antecedent of customer satisfaction, and invariably affecting customer loyalty, it is necessary to report on the quality-satisfaction-loyalty linkages.

5.1.2 The direct and indirect influence of Perceived Service Quality

It was anticipated that perceived service quality will affect customer loyalty directly and indirectly through customer loyalty. The results demonstrate that, in fact, perceived service quality has direct as well as indirect effect through customer satisfaction on customer loyalty in Ghana's mobile services sector. The result is consistent with previous findings that perceived service quality is a key determinant of customer satisfaction (Cronin and Taylor, 1992; Reichheld and Sasser, 1990; Cronin et al., 2000; Kim et al., 2004, Lim et al., 2006; Santouridis and Trivellas, 2010; Wang et al., 2004). The results also show that the effect of perceived service quality on customer loyalty can be direct, which is well documented in the services literature (Parasuraman, Zeithaml, and Berry 1991; Rust and Oliver, 1994; Aydin and Ozer, 2005), but also indirectly through customer satisfaction (Caruana, 2002; Cronin et al., 2000; Turel and Serenko, 2006). Essentially, this suggests that the degree of service quality is an important determinant of a person's satisfaction with mobiles services; satisfaction, in turn, determines whether or not a person will be committed to a service relationship. It is mostly the case that highly satisfied customers tend to demonstrate higher propensity to repeat purchase and higher tolerance for price increases by their service providers, or price decreases by competitors (Turel and Serenko, 2006). Again, service quality, which is shown to directly affect loyalty, is underpinned by the assumption that when the level of quality is high, such as better network quality, better call and voice quality, uninterrupted connection call, excellent customer service, call center responsiveness, etc., as is characteristic of mobile network services, customer will demonstrate greater likelihood to remain loyal with a network carrier and give positive word of mouth about their experience to others (Venetis and Ghauri, 2000). This suggests that boosting customer loyalty is determined, to a greater extent, by network providers promoting the highest standards of service quality possible.

Given the mediating influence of customer satisfaction on customer loyalty, the effect of service quality is thus reduced considerably. This implies that perceived service quality is better able to affect customer loyalty substantially when customers are satisfied. As such, it is concluded that network providers seeking to improve customer loyalty should, first and foremost, boost customer satisfaction, as it invariably affects loyalty. This study contrast conclusions by Boohene and Agyepong (2011), also studying the Ghanaian mobile services sector that perceived service quality cannot be mediated by customer satisfaction to influence customer loyalty. It has been demonstrated that, in fact, in the face of customer satisfaction, perceived service quality is a significant predictor of customer loyalty. Cronin et al. (2000) suggested that service quality would directly and indirectly lead to favourable behavioural intentions simultaneously. As such, both service quality and satisfaction should be treated as not mutually exclusive in attempts to enhancing customer loyalty.

Rather than focusing on service quality alone, this study indicates that it is important to lay emphasis on the role of customer satisfaction in customer loyalty improvements mechanisms. Improvements is service quality is good for the firm as it affects consumer behavior outcomes, overall (Parasuraman, Zeithaml, and Berry 1991; Rust and Oliver, 1994). However, given the subjective nature of customer satisfaction, it becomes even more important to ensure that customers' overall experience with the firm, ranging from every aspect of a company's offerings - quality of customer care, advertising, service features(e.g., network quality, coverage, connection, voice call quality), reliability etc. are all in harmony.

Since customer satisfaction is the aggregation of a series of customer experiences, Mayer and Schwager (2007) suggest that it is important that such experiences are decompartmentalized into its component experiences to understand customer satisfaction, as a great deal of customer experiences are not the direct consequences of the brand's message or the actual company's offerings. Rather, it derives from the totality of customer's prior experiences and expectations, which should be monitored and investigated in an ongoing basis (Mayer and Schwager , 2007). As such, all direct contacts including purchase and use of services initiated by the customer, as well as indirect contacts involving unintended encounters with brand or service representatives which takes the form of word-of-mouth recommendations, or complaints, advertisement, media reports etc., should be monitored, kept in balance and linked to growth targets.

In sum, this study has shown the important role perceived quality and customer satisfaction play in determining customer loyalty. Specifically, the study has demonstrated that perceived service quality is an important driver of customer satisfaction. Second, it is confirmed that while service quality affects customer loyalty directly, such effect is strengthened when customer satisfaction is present. As such customer satisfaction should be occupy center stage when designing strategies for promoting customer loyalty.

5.1.3 The direct and indirect influence of Perceived Value

It was anticipated that perceived value will have a direct positive effect on customer loyalty, as well as an indirect positive effect on customer loyalty via customer satisfaction (e.i., a mediator effect). The analysis show that, indeed, perceived value has direct influence on customer loyalty. Likewise, the study confirms that perceived value is partially mediated my customer satisfaction to influence customer loyalty among mobile service consumers in Ghana. This suggests that customer perceived value affects customer satisfaction, and customer satisfaction affects customer loyalty.

The revelation that perceived value directly influences customer loyalty is widely confirmed (Anderson and Srinivasan, 2003; Cronin et al., 2000; McDougall and Levesque, 2000; Lam et al., 2009) in the services literature. The findings emphasize the view that customers who feel they receive high-value services (i.e., quality services at reasonable prices) are more likely to repeat patronizing the service provider, and also to recommend the service provider to other customers. This is particularly true for the telecommunications sector where cutthroat competition is rampant and key differentiator is price. Telecom players who are able to offer quality services at relatively better prices stand the chance to win the patronage of consumers. Within the context of Ghana's mobile network services sector, high-value offering is of great essence, given that consumers have the ability to increase their usage of a particular network provider due to multiple subscriptions, and the seeming ease of switching to another provider under the Mobile Number Portability facility. Obviously, customers have greater propensity to repurchase and recommend network service provider to others if the offering is considered "value for money." Kuo et al. (2009) concluded that telecom brands should give priority to improvements in perceived value when they seek to enhance customer loyalty. This should be achieved by evaluating to what extent consumers feel certain aspects of the service gives better value than it costs, and the reasonableness of its prices relative to competition.

In addition, the findings confirm the mediating role of customer satisfaction in the effect of customer perceived value on customer loyalty. The results show that customer perceived value is partially mediated by satisfaction to influence loyalty. However, the mediation effect by satisfaction in the value-loyalty link is not as pronounced as it was in the service quality-loyalty link. This suggests that the effect of customer perceived value on customer loyalty was not weakened substantially in the presence of customer satisfaction. Prior studies have demonstrated a positive relationship between customer perceived value and satisfaction (Turel and Serenko, 2006; Lam et al., 2009). The indirect relationship between perceive value and customer loyalty via satisfaction have also been confirmed in prior studies (Chen and Chen, 2010; Cronin et al., 2000; Bei and Chiao, 2006; Yang and Peterson, 2004).

Thus, consumers in this mobile network services context are driven more by the high-value these service providers offer. While service quality is generally perceived to be an important driver of customer loyalty, perceived value seems to contribute the greatest impact. Within developing countries context, telecommunications network service attributes such as network coverage, network connection, network quality, call quality, customer service etc. are critical to consumption decisions. Pricing also appears to be very essential in determining the extent of consumers' willingness to do business with a particular service provider over the long haul. It seems appropriate to suggest that service providers who are able to offer competitive pricing stand the chance to win customer over.

In addition, these results imply that the relative importance of perceived value on customer loyalty is recognized via the mediating effect of customer satisfaction in the mobile network services context. According to Lam et al. (2009), prior studies have not formally or thoroughly accounted for this mediating role, which is particularly true for the mobile services sector. By using the well-established attitudinal framework of cognition → affect→ behavioural intent or behavior, a theoretical justification for this role is provided, by labeling perceived value as cognition, customer satisfaction as affect, and customer loyalty as behavior (or the tendency to behave favourably toward as service provider).

In sum, unlike service quality, perceived value contributed significantly greater impact on customer loyalty and satisfaction. The mediation effect on perceived value was also not substantial. This implies that perceived value explains customer satisfaction and loyalty better than service quality. It appears customers are not only driven by perceived value but also their satisfaction (affect) of a service provider when deciding to be committed to a service relationship. Hence, customer who perceive greater value and are highly satisfied are more likely to remain loyal than those who do not. For the purpose of enhancing customer loyalty, it is necessary to track changes in both customer satisfaction and perceived value, as customer satisfaction does not fully mediate the impact of perceived value on customer loyalty.

5.1.4 The effect of corporate image on customer loyalty

Corporate image has long been considered a key driver of customer loyalty within the services industry, with no exception to the mobile services sector (e.g., Aydin and Ozer, 2005). This study posited that corporate image will influence customer loyalty positively. The results confirmed the assumption that strong loyalty to mobile service providers was likely to the extent that service providers maintained strong, favourable, and unique corporate image. Several other studies have found justification for this notion (Andreassen and Lindestad (1998, Bloemer, de Ruyter and Peeters, 1998; Ngugen and LeBlanc, 1998; Wang, 2010).

In the mobile network services sector, corporate image is shown to influence customer loyalty directly (Aydin and Ozer, 2005; Boohene and Agyepong, 2011; Ogwo and Igwe, 2012). Thus, the results point to the fact that there is a significant positive relationship between mobile network service providers' image or reputation, and customers' intention to provide positive word-of-mouth and stay connected to mobile services in Ghana. This suggests that building strong, favourable and unique brand image or reputation by way of corporate social responsibility investments, marketing promotions, quality advertisements, events, sponsorships etc. are critical to sustaining customer loyalty. Moreover, given that corporate image is the subjective representation about an organization and its behaviour (Treadwell and Harrison, 1994), it is crucial that every aspect of mobile services companies performance in areas such as company's products and services, management quality, communication activities, corporate philanthropy etc. are monitored and influenced on day to day basis (Wan and Schell, 2007).

Building strong corporate image necessary to affect customer loyalty requires feeding the public with all vital information cues such as the impression of quality communicated by each service employee as they interact with the firms' clients. Thus, corporate image formation sources by the public are numerous. Aydin and Ozer (2005) noted that since consumers may be limited in terms of all relevant information in forming complete image about a firm, they may rely on various information cues from different sources, particularly advertisement and word of mouth. Hence, establishing constant monitoring and feedback processes will guide the company to deeply understand what factors customers consider important in shaping corporate image formation. However subjective corporate image process may be, better engagement with the public should be top priority if mobile service providers wish to influence loyalty through corporate image.

Others have, however, found that the interaction between corporate image and customer loyalty may be further influenced by factors such as customer satisfaction and switching cost. For example, Hart and Rosenberg (2004) reported that the effect of corporate image on customer loyalty was "marginally significant," but this effect is substantially mediated by customer satisfaction. In another instance, Wang (2010) demonstrated that the effect of corporate image on customer loyalty depended on switching cost, such that higher switching cost mitigated the influence of corporate image on loyalty, suggesting that when customers perceive considerable switching barriers, e.g., promotions, they may be less inclined to be influenced by corporate image. Given that several factors influence corporate image formation, brand building efforts should be frequent, and focus on all aspects of the company's performance and activities that consumers perceive as critical in influencing their impressions about the mobile services provider, and loyalty, thereby.

5.1.5 The effect of switching costs on customer loyalty

Switching costs was hypothesized to have direct positive effect on customer loyalty. The results did not support this hypothesis. It was found that switching cost was insignificant in predicting customer loyalty within Ghana's mobile network services sector. The results suggest that customer do not perceive barriers in switching to another network provider. This result is inconsistent with other reported findings that switching costs determines customer loyalty (Fornell, 1992; Klemperer, 1987; Seo et al., 2008). Aydin and Ozer (2005), Cheng, Lai and Yeung (2008), Liu, Guo and Lee (2011), all investigating the mobile network services sector found direct positive effect of switching costs on customer loyalty.

Others have also treated switching costs as a mediator/moderator in explaining customer loyalty. For example, Wang (2010) reported that the effect of customer value and corporate image on customer loyalty was mitigated under conditions of higher switching costs. Yet Kim et al. (2004) found that switching costs had direct as well as interaction effect with customer satisfaction to influence loyalty, suggesting that customer's showed greater propensity to stay loyal to a service provider despite being dissatisfied, especially when perceived switching costs were high.

The assumption that higher switching costs may force customers to remain locked up with their service companies is not entirely obvious in this study. As demonstrated by the results perceived switching costs does not encourage customer loyalty in mobile network services sector in Ghana. This may be explained by the fact that, first, network consumers normally maintain multiple subscriptions, such that one person may sometimes have two or three subscriptions to compensate for the network deficiencies or perceived benefits a particular carrier may possess. For example, a mobile subscriber who rates network coverage as a favourable attribute will subscribe to MTN since they lead the market in that regard, but at the same time subscribe to a second provider such as Vodafone Ghana on account of better price offers. Second, given the implementation of the Mobile Number Portability facility, customers are emboldened to switch freely should they consider a network provider less attractive. With the implementation of the MNP, mobile network providers in Ghana as well as the National Communication Authority have reported increased activity of customers wanting to switch from one network provider to the other. These two factors may explain why respondents do not consider switching costs as a driver of customer loyalty.

Notwithstanding, the email interviews which launched this study suggests that, overall, many customer do perceive some factors such as network coverage, price promotions, length of subscription, corporate image etc. as barriers to switching. Yet others did not perceive any switching barriers, and instead argued that there were no suitable alternative to their current subscription. Han, Kim and Hyun (2011) noted that when customers perceive alternative service providers as not good enough or similar to their existing service providers, they are less likely to switch. Therefore, the lack of superior alternatives or no significant perceived differences among alternative brands may induce positive liking for the existing service provider.

While switching cost may not be a particularly favourable approach to inducing customer loyalty due to it being insignificant in this study, some factors cited as critical to encouraging customer lock-in are worth considering. Given the aggressive nature competition among network providers to attract and retain customers, price is viewed as a key weapon. Frequent price promotions and loyalty benefits may be used to disincentivize subscribers who may wish to switch. Jones, Mothersbaugh and Betty (2000) have also noted that relationship specific investments which create customer dependence may be used to erect switching barriers. In mobile network services setting, frequent customer engagement with the service center is considered critical to the overall service experience. Such processes should be monitored and improved to further lock customers in the service relationship. Hence, service personnel should be adequately trained and equipped with the relevant skill set to demonstrate high professionalism, promptness in dealing with customer complaints, preparedness in handling customer queries etc. Such actions will enhance service personnel-customer interactions and, consequently, promote positive customer attitudes.

5.2 Assumptions on Mobile Number Portability (MNP)

As recap, three consumer groups were identified in regard to their intentions toward Mobile Number Portability. The first group comprised those who had greater propensity to port their numbers. The second group was less likely to port their numbers, with the third category showing little interest in MNP. The latter group was classified as undecided. The assumption is that each of these groups show different attitudes toward MNP, and hence may require idiosyncratic marketing strategies to either win them over or keep them loyal. Overall, telecom players that promise innovative products and service solutions, better service quality, high-value added services, better pricing, exceptional customer service etc. will be able to hedge themselves against incessant inducement from competitors. New entrants and follower brands may target likely brand switchers to improve their subscriber base and hence their chances of survival. For leading brands, it is equally important that they avoid unnecessary customer losses by improving on areas that are core to their brand equity. Critical attributes such as network coverage, connectivity, call quality, better pricing, innovative products and service solutions, strong brand image, social investments, customer service excellence etc. should form the basis of all marketing activities. Telecom players which are able to lead in these areas will gain considerably given the increased customer switching that has characterized the market place following MNP roll out.

MNP offers all players within the industry an opportunity to offer improved service delivery and better choice set. Customers will ultimately benefit from this system as it forces phone operators to offer their best least they lose significant market share, or reduced service patronage (Shin, 2006). Yet, multiple subscriptions could be a major factor that may mask the true effect of MNP. It is possible to suggest that customers who show no interest at all at porting may be dual customers. In this case, they are able to compensate for the lapses in one network with the perceived advantages in the other. In sum, companies can target all three customer groups identified in this study with appropriate marketing action. In the end, those telecom players able to offer better value will be able to capture likely brand switchers, and sustain their market share.

5.3 Managerial Implications

The findings of this study provide useful guidelines for management and employees of mobile services providers, particularly brand managers, and marketing communication practitioners in understanding key drivers of customer loyalty. Such guidelines will help drive marketing performance in areas necessary to attract new customers and retain existing once in a fiercely competitive business landscape such as the telecommunications sector in Ghana.

In the first place, the results have shown that satisfied customers will remain loyal with their network services provider. Hence, brand building executives must ensure that customer satisfaction levels are closely monitored through interviews and focus group discussions (qualitative approaches) as well as periodic surveys (quantitative approaches) to gauge satisfaction/dissatisfactions levels. In dialogue with customers, management and employees should strive to understand customer expectations and attempt to exceed those expectations. Beyond the core services, customers expect to be treated respectfully and in friendly manner. Customers should be made to believe that the company has their best interest at heart.

In addition, the findings have shown that perceived service quality affects customer loyalty directly, but this direct effect is also mediated by customer satisfaction. This indicates that brand managers should focus their attention on the influence of service quality on customer loyalty in tandem with satisfaction. The results indicate that even though there is a direct positive relationship between service quality and loyalty, other intermediate determinants need attention too. Just focusing on service quality may result in alienating other important drivers of customer loyalty in the equation. Looking at the individual dimensions of service quality, it is obvious that mobile carriers should place particular emphasis on improving their network (i.e. coverage, connection, voice call, and overall network quality) as well as empowering service personnel to deal with complaints promptly, and demonstrate professional competence at handling issues. Access to customer service centers should also be hassle free, and within reach.

A third managerial implication is that customer perceived value should be boosted as affects customer satisfaction and loyalty greatly. This study has shown that what customer give up, i.e., the price they pay for the services they receive have strong bearing on loyalty. Thus, brand executives must ensure that they give customers good value for the money they pay. Customers seem to be pleased with a network carrier that offer value added services such as free data allowance, talk time or tariff bonus, and other features that are not originally contained in the service price. When customer receive better value for their subscription, they become satisfied, which in turn determines their willingness to offer favourable word of mouth and continue patronizing the service providers' offering. Importantly, the study indicates that perceived value rather than service quality contributes the greatest impact on customer loyalty, even in the face of customer satisfaction. This implies that mobile phone users' customers regard monetary sacrifice (price) as a key driver of their loyalty. Marketing executives should constantly scan their environments to counter the effect of competitors pricing strategies through retaliatory pricing.

Fourth, the findings show that corporate image affects customer loyalty positively. Customers are more inclined to remain loyalty to a network carrier which is has a strong image or reputation in the market. And corporate image creation touches on various aspects of the corporation ranging from management quality, advertising, price promotions, and sponsorships to social philanthropy (Keller, 2008). Management should endeavor to continue investing in key areas that will generate favourable impressions in the public's mind. Since image is subjective, and one area that has direct bearing on the company's image is the quality of products or services of the company, it is essential that brand executives monitor corporate image improvements in relation to service quality dimensions. Employee orientation, especially customer service personnel, should attract critical attention as customer ongoing engagement with the mobile career has a significant effect on their overall experience with the service provider. Any negative experience with service personnel will ruin customers' attitudes and cognition, which in turn, may affect their image of the network provider. Continuous monitoring and improvements in sources of brand image and reputation will have direct effect on customer loyalty.

Finally, caution should be exercised in regard to the impact of switching costs on customer loyalty. The findings reveal that switching costs does not affect customer loyalty. While this finding may hold true, brand executives should interpret it in the light of the prevailing market conditions. With the Mobile Number Portability in place, some barriers to switching has somewhat been mitigated. Secondly, given that a significant number of customers hold multiple subscriptions of different mobile carriers, barriers that may have been posed by a competitor may, in fact, be reduced by the customer himself. When a customer holds two subscriptions, he or she compensates for the weaknesses in either carrier by straddling between services. Notwithstanding, brand managers may attempt locking customers into their platform by making improvements in customer engagement activities, which has the potential to create barriers to switching. Overall, strong corporate image, better service offerings, extraordinary customer care etc. has the potential to erect switching barriers.

Brands, particularly follower brands, which have registered significant customer defection through MNP should continuously and critically examine factors causing such losses and curb it. MNP has come to stay and it is important that network carriers feature it prominently in their marketing strategy to prevent any negative effect.

Theoretically, this study has shed light on various ways of measuring perceived service quality. Essentially, the study demonstrates the necessity to tailor measurement items to suit the research setting. So the case of this research items unique to the industry such as mobile network factors, and key service performance variables were used. Additionally, our understanding of the effect of factors including perceived value, satisfaction, corporate image and switching costs have been extended, particularly within a developing country context.

5.4 Limitations and future research recommendations

All research is beset with limitations, and this study is no exception. First, given the cross-sectional nature of the study, with results relating to only the respondents in this study, generalizations to a broader population or sector should be done with caution. Also, the regional distribution of the sample is uneven, with the greater Accra region representing the largest respondents. This may undermine the true state of affairs in terms of how each region rates the telecom brands on particular attributes. For example, a region that is lacking in network coverage may rate it highly, whereas another may rate customer service favourably. This needs to be balanced in future research. The sample size is also not large enough, though adequate for the type of analysis carried out. The sample size could have been expanded to ensure that each network carrier's brand was fairly represented by respondents. The online data gathering process may have alienated several respondents, especially those who are not IT savvy. However, the online survey approach proved suitable due to time and geographical constraints.

Furthermore, this study, as is characteristic of many reported researches, aggregated responses across all telecom players. This may not reveal the true performance of individual players. Future studies may benefit from examining each mobile carrier by grouping responses according to customers' network subscription and, possibly, compare them along study variables, to determine how their market share compares with crucial marketing attributes.

While the study has made key inputs into Mobile Number Portability intentions, large data set may be necessary to provide robust results, conclusions and recommendations. Future research could look at developing a model specifically dealing with MNP. Importantly, researchers could also look into actual porting behaviour and link it with variables such as satisfaction and loyalty – whether customers have actually ported their original numbers, what factors prompted such behaviour, assess their satisfaction levels, and how this behaviour affects their loyalty.

5.5 Conclusion

In the wake of the Mobile Number Portability enactment, and weakening market growth rate of the mobile network service sectors in Ghana, acquiring new customers and retaining existing ones has become both costly and extremely difficult in terms of marketing for mobile operators. With subscriber numbers at its highest, and six players scrambling to either protect their market base, or win over competitors' customers, the industry-wide belief that "the best core marketing strategy for the future is try to retain existing customers by heightening customer loyalty and customer value" (Kim et al., 2004, p. 146) couldn't be far from the truth in the case of Ghana. And in market conditions such as this, price has usually been a competitive weapon. Competitive pricing, which may work for a while, normally hurt industry-wide profitability.

As evidenced in this study, perceived (value for money) made considerable impact on customer satisfaction and loyalty. Yet, it is important for operators to decrease customers' price sensitivity. This may be difficult, particularly in a developing economy. Nevertheless, key drivers such as perceived service quality, positive corporate image, and perceived switching costs can help strengthen loyalty and decrease sensitivity to price (Aydin and Ozer, 2005). Though lower pricing may hurt industry-wide profitability and growth, it still remains probably the most important decision criteria for mobile network consumers, particularly in developing nations. Yet, it still remains a great challenge for Telecom players to differentiate themselves on key attributes such as service quality, image and satisfaction (Keller, 2008). Differentiation of services and guaranteed service quality will remain game changers. Mobile carriers which are able to differentiate their offerings, offer better quality and high-value added services will not only keep customers pleased instead they will keep them for good. Mobile carriers that are able to endow their brand with critical attributes perceived by consumers as choice factors will enhance their attractiveness and fortify themselves from increased subscriber losses.

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7. APPENDIX

7.1 Letter of survey invitation

Subject: Research Insight Needed on Mobile Service Providers in Ghana!

Dear respondent,

I am conducting a survey to understand consumers overall perceptions and attitudes toward mobile network service providers in Ghana. This is part of my Master thesis at the Norwegian School of Economics. Participation in this project is voluntary. All responses will be treated with strict confidentiality, and data collected will be made anonymous in all reports from the study. Data collected will be used for research purposes only.

The questionnaire will take approximately 10 minutes to complete.

Follow this link to take the Survey:
https://nhh.eu.qualtrics.com/SE/?SID=SV_3TTZ02w6vnulFGc

Thank you in advance for taking the time to complete this survey.

Should you require further information or clarification, you may contact the student or research supervisor via contact information below.

Yours faithfully,

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7.2 Pilot Email interview

Dear participant,

Subject: Investigating consumer perceptions of telecom brands in Ghana

I am currently working on my thesis dissertation which is aimed at investigating consumer perceptions of Mobile Telecommunication brands in Ghana. I would be glad if you could take some time to share your thoughts with me. This is part of an initial pilot study.

Please you are encouraged to answer all the questions, and also provide as much information as possible to enable me get a better appreciation of the subject areas. However, if you feel strongly about a particular question, you may decline to answer.

Questions:

1. Which service provider do you use (state your most preferred or frequently used brand):

1b. In case you use multiple brands, provide the list below in order of usage and/or importance.

2. In your opinion, what factors or characteristics of your mobile service provider do you consider important for using their services. (Please provide as many reasons or list of factors as possible). e.g., price promotions etc.

2b. Again, in your opinion, what are the most critical elements that *differentiates* your current mobile service provider from the rest of the competition

3. Are you familiar with the Mobile Number Portability (MNP) facility; Yes or No: .... MNP is the process whereby you can retain your mobile number while switching your service to another operator of your choice.

- If yes, have you considered switching to another service provider and what factors are influencing your decision? (Also, in case you've already switched, indicate from and to which brand, and explain why you switched?)

- If no, are there any factors you may consider as barriers to your switching intentions?

4. How would you evaluate the service offerings, and overall performance of any of the telecom brands in Ghana? (you can comment on more than one brand. You may also select from the following list for your assessment: customer care, innovation, corporate social responsibility, network quality, network coverage, call tariffs, price promotions, loyalty programmes, internet connectivity, etc). Please feel free to mention other factors not listed above.

5. Finally, what is your general attitude towards Telecom brands in Ghana?

Please contact me if you need additional information or want clarification.
Thank you for your participation!

E.A.S Quaye
Norwegian School of Economics, Norway
MSc in Marketing and Brand Management

7.3 Survey Questionnaire Items

1. Which of the following mobile network providers is your most preferred or primary carrier?

#	Answer
○	Airtel
○	Vodafone
○	MTN
○	Tigo
○	Expresso
○	Glo Mobile

2. If you use more than one service provider, please select the brand(s) from the list below.

#	Answer
☐	Airtel
☐	Vodafone
☐	MTN
☐	Tigo
☐	Expresso
☐	Glo Mobile

Please answer the following questions with respect to your main service provider.

3. How satisfied have you been with your experience with your service provider?

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	Satisfaction Overall, I am very satisfied with the quality of service offered by my service provider							
2	In general, I am very happy with my overall service experience							
3	*I don't feel pleased with my decision to use the services of this company*							

4. Thinking about your service experience, how much do you agree with the following statements?

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree		
1	Customer intentions I will continue using my primary service provider									
2	I will recommend my primary service provider to anyone who seeks my advice.									
3	I will encourage my friends and relatives to use my service provider.									
4	I will continue using my primary service provider, even if other operators prices were somewhat cheaper.									
5	I will still choose my current provider, if I had to do it all over again.									

5. Based on your experience or what you have heard, how do you evaluate your service provider on each of these service attributes or benefits?

#	Question	Very Bad	Bad	Poor	Neither Good nor Bad	Fair	Good	Very Good
1	**Service quality evaluations** Overall network quality.							
2	Coverage of the network.							
3	Ease of network connection.							
4	Voice quality of calls.							
5	*Overall quality of Internet services.*							
6	Quality of customer care services.							
7	Ease of access to contact centers.							
8	Promptness in complaint handling.							
9	Call center personnel ability to help with problems.							
10	*Variety of service plans that meet my needs.*							

Due to the recent implementation of Mobile Number Portability (MNP) system, the expectation is that majority of subscribers will drop or replace their network providers. MNP is a system which allows subscribers to switch from one network provider to the other without losing their original number. Based on this, answer the question that follows.

6. How likely are you to port (i.e., switch) your number from your current service provider to another?

#	Answer
1	Very Unlikely
2	Unlikely
3	Somewhat Unlikely
4	Undecided
5	Somewhat Likely
6	Likely
7	Very Likely

7. How do you rate your level of agreement to each statement in relation to general attitudes toward switching?

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	Switching attitudes The cost in time and effort for changing my current service provider will be high for me.							
2	It would be very inconvenient for me to switch to another service provider.							
3	*I am not ready to put forth the effort required for switching.*							
4	*Changing my phone company will not make much difference.*							
5	Switching to another provider will bring economic loss to me.							

8. The following lists of statements describe different perceptions about telecom service providers. For each statement, please indicate your level of agreement in relation to your service provider

#	Question	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree		
1	Network Provider perceptions My service provider is innovative and forward-looking.									
2	My service provider takes social responsibility seriously.									
3	My service provider has a reputation for quality.									
4	My service provider has a positive image in the minds of consumers.									
5	My service provider offers good value for money.									
6	My service provider offers overall better pricing plan compared to its competitors.									
7	*Considering the price I pay, I am not happy with the value I receive.*									

Demographics

9. What is your gender?

#	Answer
○	Male
○	**Female**

10. What is your age?

#	Answer
○	Less than 18
○	18 to 24 years
○	25 to 34 years
○	35 to 44 years
○	45 to 54 years
○	55 to 64 years
○	65 and above

11. What is your highest level of education?

#	Answer
○	SSSCE
○	HND
○	Undergraduate degree
○	Master degree
○	PhD
○	other (specify)

12. How long have you used your main mobile service provider?

#	Answer
○	Less than 6 months
○	More than 6 months - but less than 2 years
○	2 to 4 years
○	4 to 6 years
○	7 to 10 years
○	More than 10 years

13. In which region (city) do you live at the moment?

Answer	Answer
○ Central Region	○ Eastern Region
○ Ashanti Region	○ Upper East Region
○ Northern Region	○ Volta Region
○ Greater Accra Region	○ Brong-Ahafo Region
○ Upper West Region	○ Western Region

NB: Items in italics were deleted while computing the various constructs to improve the scale reliability.