

Impact of Mobile Number Portability on Service Delivery in the Mobile Telecommunication Industry in Ghana; Case Study of Bharti Airtel Ghana Limited, Kumasi

Nana Danso Boafo
University College of Management Studies, Kumasi, Ghana P.O.BOX UP 12
Nana_dd@live.com

Doris A. Kokuma
University College of Management Studies, Kumasi, Ghana P.O.BOX UP 12
Daak2008@yahoo.com

Gabriel Arthur
University College of Management Studies, Kumasi, Ghana P.O.BOX UP 12 KNUST
Arthurgab2014@gmail.com

* E-mail of the corresponding author: nana_dd@live.com

Abstract

The mobile telecommunication industry has seen a major increase in competition in recent years. This as a result of similarity of service provided. In giving consumers more bargaining power the, National Communication Authority (NCA) has introduced Mobile Number Portability (MNP) which enables subscribers the opportunity to switch or change providers.

The study intends to investigate the impact of MNP on service delivery, and go further to ascertain the factors that influence customer porting decisions, benefit of porting to the company and customers, the nature of service quality before and after the introduction of MNP. The research design was descriptive, both primary and secondary sources of data collection method were used to answer the research questions. Primary data was gathered from the one hundred and sixty four (164) respondents through a structured questionnaire. The target population for the study was therefore all the customers who have ported to Airtel in Kumasi. Combinations of purposive and accidental sampling techniques were used to select the one hundred and sixty four (164) respondents.

The study revealed that price, service quality and company reputation influence customers porting behavior. It was recommended that the companies should adopt a cost leadership competitive strategy, continue corporate social responsibility programmes, and continue improvement of service quality delivery.

Keywords: Mobile number portability, Service Quality, Competition, Price, Company reputation

1.0 Introduction

The success of mobile telephone popularly referred to with the acronym for Global System of Mobile Communication (GSM), in the West African region, has surpassed all forecasts at the start of rolling out the technology and services. Mobile telecommunication moved from a global subscription of 2 billion in 2006 to 4.3 billion across the planet by 2009 (Essegbey et al, 2010). Particularly, its uptake in the African continent has been phenomenal.

Mobile phone communication penetration in Africa experienced cumulative average growth rate (CAGR) of 49.3% between 2002 and 2007 and represented 89.6% of total telephone subscription on the continent. In the case of Ghana, mobile telephone subscription formed 95.3% of the total telephone subscription with CAGR of 81.4% for the same period (Essegbey et al, 2010)

This record of growth and future prospect of mobile telephony is epitomized by the unmatched benefits associated with its service. The many pricing models offer affordability and choice, even for very low-income customers (cheap handsets, micro prepayments, top-up cards). Innovative ways of mobile phone access, which allow sharing of phones through SIM cards and payments for air time through micro-prepayment, promote even more rapid adoption by the poor (Bhavnani et al, 2005).

Undoubtedly, the world has embraced mobile telephony however the individual subscriber is faced with huge dilemmas as to the real importance of the system as opposed to its benefits. Subscribers might have thought that the rapid transformation in communication technology was going to be the spring board for a more superior service delivery little did they know that they were going to be rewarded with unsatisfactory performance from

the mobile communication providers. The customer is saddled with huge termination cost, interconnectivity challenges, hidden charges and general poor services from these companies. It is a common sight to see customers of these companies using two or more SIM cards depending on the availability and the signal strength of the wireless provider at a particular time or location in order to keep in touch with business partners, relatives or friends. Customers are left with little option of switching to an alternative more efficient mobile network because of direct and indirect cost associated change. This situation is found in a practical expression of disgust and discontent as evident in a press statement issued on Tuesday 6th April by The Consumer Protection Agency, a Ghanaian Non-Governmental group to the effect that a number of surveys in recent years have portrayed that many frustrated and disgruntled subscribers who wish to switch operators are stacked because of fear of losing their numbers (All Africa-All the Time, 2010).

However service operators are faced with a lot of challenges in meeting the telecommunication demands of subscribers. According to (Bates, 1993), today's ICT solutions or service providers are facing series of complex challenges ever in trying to meet up with the requirement of building or enhancing enterprise ICT solutions to many facets of organizational problems while remaining competitive and maintaining cost. In Ghana the introduction of MNP has seen different angles of debate. Many people believe that MNP will help stabilize the mobile telecommunication industry. This study therefore looks at the nature of impact MNP has on service quality delivery.

2.0 Problem Statement

Traditionally, consumers of mobile telecommunications services were required to give up their numbers when switching providers. Consumers were thus hesitant to switch from one service provider to competing operators, thereby effective competition in mobile telecommunications industry (Buhler et al, 2005).

As at the end of September, 2011, twelve weeks since the commencement of Mobile Number Portability (MNP), a total of 105,678 mobile phone subscribers in Ghana had taken advantage of the MNP system to move from one mobile service provider to another whilst retaining their mobile number (NCA, 2011).

It is therefore imperative to ask whether or not the introduction of the Mobile Number Portability have had any impact on service quality delivery especially, which factors influence customers to port, what are the benefits customers who have ported enjoyed.

3.0 Research Objectives

The general objective of study was to assess the impact of Mobile Number Portability on service delivery in the Telecommunication industry in Ghana. These specific objectives were generated

- To determine the influence of price on customer porting decisions.
- To examine service quality delivery before and after the introduction of MNP
- To evaluate how corporate reputation influence consumer porting decisions
- To examine the benefits of mobile number portability to the customer and Airtel

3.1 Research Questions

- How does price influence customer decision to port to Airtel?
- How was service quality delivery before and after introduction of MNP?
- Does corporate reputation influences consumer porting decision?
- What are the benefits of MNP to both the Customer and Company (Airtel)

4.0 The concept of Mobile Number Portability (MNP)

Mobile Number Portability in its simplest form is the ability to retain subscribers' phone numbers when changing the subscription from one mobile service provider to another. (Siu Keat Chark, 2007).

The Telecom Regulatory Authority of India Act, 1997, Reg. 2(I) define Mobile Number Portability as "the facility which allows a subscriber to retain his mobile number when he moves from one Access Provider to another irrespective of the mobile technology or from one cellular mobile technology to another of the same Access Provider". This phenomenon as postulated by Frost and Sullivan, Singapore was the first country in the world to have implemented MNP closely followed by Hong Kong, Australia, South Korea and Taiwan in 1997,1999, 2001 and 2005 respectively.

It is clearly evident that mobile service operators are generally adverse to the introduction of Mobile Number Portability since subscriber churn is likely to be great, subscriber retention doubtful and competition stiffer than

ever which has the potential of reducing profit margins as a result of service rate reduction in the desperate attempt by service providers to stay in the game.

As opined by Buehler et al (2003), Mobile Number Portability can be a source of many disadvantages like relatively high costs of implementation and reduction in tariff transparency as a result of the fact that the prefix of a mobile telephone number no longer indicates its network assignment.

4.1 The rationale for implementing MNP

Existing literature on portability contains extensive discussions on the rationale for introducing these services. Among the most commonly cited motives is the lowering of switching costs (Smura, 2004; Buehler, Dewenter & Haucap, 2005). Mobile customers' who switch operators in return for better quality of service (QoS) and/or call rates, are benefited by the MNP facility as they do not incur costs to update their networks about a number change. In addition, they are less likely to miss out on phone calls (except during the short period when the actual number porting from one operator to another takes place).

According to Gerpot, Rams & Schindler (2001), customers put a value on their phone numbers, especially when they have used that number for an extended period of time, and would rather stay with an unsatisfactory service provider in an effort to retain that phone number. This in itself is a cost to the user, who has to put up with poor QoS and maybe even make calls at uncompetitive rates. The existence of portability, therefore, enables such customers to make a simple change to an operator of their choice as a result of lower switching costs.

It must be noted, however, that MNP cannot completely remove these costs – mobile subscribers will almost certainly incur some cost in switching operators, in terms of time taken to make the switch (it is possible that they may miss a few calls) and money spent on porting the number (the porting process involves a lot of technicalities, the costs of which must be covered by regulators and operators).

However, these are onetime costs, while the costs of a poor service and the compulsion to carry on may have huge implicit costs and may reduce consumer welfare.

Following from this discussion, the introduction of the MNP service is said to drive competition; it must be noted that the service does not create competition but only improves it. This is based on the theory of contestability which postulates that the threat of new entrants into a market alone should ensure that existing firms behave more competitively. As stated in Buehler, Dewenter & Haucap (2005), "the rationale of introducing mandatory MNP is simple: it is expected to bring about considerable benefits to consumers of mobile services". MNP facilitates the movement of customers between service providers, putting the latter under pressure to provide greater levels of service.

The introduction of MNP entails a rethinking of business strategies beyond price wars alone, which result in competitive tariffs among industry players (Buehler & Haucap, 2004), as they will not be enough to retain subscribers; instead, operators will have to improve their QoS and even offer innovative services and features in order to prevent customers from changing networks. This is perceptibly beneficial to mobile subscribers (Katka, 2004), but operators have to undertake expensive marketing campaigns and advertising costs, and increase investment costs. The potential for high churn rates and loss of subscribers adds to this pressure (Keynote Capitals, 2009). While MNP may have a significant impact on market dynamics, it is difficult to distinguish the absolute effect of the service on the market.

Another benefit from this service is that it helps to create a level playing field for small and new entrants (Katka, 2004). Market asymmetries will be removed to a certain extent; and every service provider is given the opportunity to attract customers regardless of how young or how established the operator is. MNP has effects on "retail prices, termination charges, price elasticities, market shares, as well as entry and investment decisions" (Buehler, Dewenter & Haucap, 2005).

While MNP is expected to reduce switching costs and increase competition among industry players, the extent of these effects is contingent on how accepting operators are to the introduction of MNP services. Service providers can engage in attempts to stifle the effects of MNP by penalizing subscribers' who break their contractual agreements or by imposing hefty charges for porting their numbers. Operators can even provide phones that are locked in to their own networks, making it difficult for subscribers to make a switch to another network, without having to purchase a new phone.

Some are even guilty of suppressing information on porting. It is for these very reasons that the success of MNP is deemed by the power wielded by the regulatory and competition authorities.

The service also has implications on the reallocation of property rights (Buehler, Dewenter & Haucap, 2005), because subscribers become the sole owners of the mobile phone number that they hold, and therefore control its use..

The MNP service also encourages churn, as mentioned above, which service providers generally strive to keep at a minimum. High churn rates are especially useful for new entrants into the mobile market, because they are able to acquire subscribers to their networks. MNP helps these firms to acquire new subscribers, but operators are faced with the task of having to retain their existing subscribers, which may sometimes be harder to do (Smura, 2004). Service providers have to take extra efforts to ensure that they do not lose their own subscribers while trying to entice subscribers from other networks to take up their services, and striking this balance can be tricky. There are, therefore, both positive and negative consequences to high churn rates.

On the other hand, there are several downsides to using MNP services. With the use of MNP customers will generally be oblivious to the network they are calling. In the past, operators have had a specific number code before the remaining numbers that comprise a phone number, in order to make it easy for callers to identify which network they are calling. With the use of MNP, however, this code serves very little purpose as it does not mean that a customer with such a code still belongs to the corresponding network. This, therefore, defeats the purpose of having such a code and has implications on national numbering plans (Ovum, 2000). Additionally, since mobile subscribers are most likely to be unaware of which network they are making calls to and operators can take the opportunity to increase termination charges (Beuhler & Haucap, 2003).

In fact, mobile subscribers will be unable to know the price of any call and cannot take advantage of on-net and off-net rate differences too; however, the easiest way to overcome this problem would be to enforce a single rate tariff plan for all operators (Smura, 2004).

4.2 Service quality factors.

Service quality has become an increasing important factor for success and survival in the mobile telecom industry. Many banks have employed the quality of service as a sustainable competitive advantage because products offered by most banks are almost identical and are duplicated easily.

Gronroos (1984) suggested that the perceived quality of a given service was the outcome of an evaluation process where consumers compared their expectations of the service with the service that they experienced in the service encounter. Good perceived quality was achieved when expected service quality was at least equal to experienced service quality. Parasuraman, Zeithaml, and Berry (1988) employed the expectation-perceptions gaps definition of service quality to define perceived service quality as the degree of discrepancy between customers' normative expectations for the service and their perceptions of service performance. In the context of banking, Kamalia and Jacques (2000) suggested that perceived service quality resulted from the difference between customers' perceptions for the service offered by the bank (received service) and their expectations from the bank that provided such services (expected service).

SERVQUAL as a measurement instrument, and the five SERQUAL dimensions identified by Parasuraman, Zeithaml, and Berry (1985, 1988, 1991), have been used in the mobile telecom industry (Zhu, Wymer, and Chen, 2002). The SERVQUAL methodology has also been used in assessing banking service quality.

For example, Levesque and McDougall (1996) adapted a selection of service quality items from Parasuraman, Zeithaml, and Berry's (1988) SERVQUAL measurement in order to gain insights into service quality from the customers' perspectives and to improve the understanding of the determinants of customer satisfaction.

Avkiran (1994), in a study, identified four valuable service quality dimensions: staff conduct, credibility, communication, and access to required services. Ennew and Bink (1996) used factor analysis to identify service quality dimensions in the United Kingdom: knowledge and advice offered personalization in the service delivery, and general product characteristics. Bahia and Nantel (2000) identified six perceived service quality dimensions in the mobile telecommunication industry: effectiveness and assurance, access, price, tangibles, service portfolio, and reliability.

The service quality dimensions used in this research to analyze the relationship between service quality and switching behavior are based on an extensive literature review and the results of focus group sessions. They represent a customer's overall impression of his/her service experience. The three dimensions are: inconvenience, reliability, and staff that deliver services.

The inconvenience dimension includes two aspects: geographical inconvenience and time inconvenience (Gerrard and Cunningham, 2004).

Colgate and Hedge (2001) have empirically confirmed that inconvenience was an important factor that influenced customers to switch service providers. The authors argued that the inconvenience dimension was negatively associated with customers switching service providers.

Reliability, as a service quality dimension, may be represented in a number of ways (Parasuraman, Zeithaml and Berry, 1985; Bahia and Nabel, 2000).

Colgate and Hedge (2001) found that, in the context of mobile telecom providers, performing poorly on the reliability dimension prompted customers to switch service providers.

Philip and Bart (2001) found that customers had high expectations about the staff that deliver the service; in particular, that customers were concerned about staff appearance, courtesy, efficiency, and knowledge. Colgate and Hedge (2001) and Gerrard and Cunningham (2004) empirically demonstrated that an unfavorable experience with the staff that deliver the service was a principal factor that caused customers to switch service providers.

5.0 Research Method

The study was designed to use both primary and secondary data. The primary data was gathered from the one hundred and sixty four (164) respondents through a structured questionnaire. The primary data forms the core information needed to achieve the research objectives. This is because; the researcher has to go to the field to identify the people who have ported their mobile services from other networks to Airtel. The secondary data used in the study included existing material such as publications in journals, relevant literature on the topic, books and internet materials. The secondary data is also important to the researchers because it helps to identify concepts, perspectives, models which relate to the topic at hand.

The study takes into consideration the entire population of the Kumasi metropolis which is estimated to be one million nine hundred and fifty six thousand (1,956,000) according to the 2010 population and housing census. The target population for the study is therefore all the customers who have ported to Airtel in Kumasi. Even though the numbers of customers who have ported to Airtel Kumasi are readily not available, it is believed the figure will also be too large to interview them. The determination of the sample size was based on this assumption. Also five top management members were selected based on sound judgment.

A total number of one hundred and sixty four (164) who have ported to Airtel in the Kumasi Metropolis were selected using purposive and accidental sampling for the study. The target population of the study area is too large for the researchers to attempt to survey all of its members. A small, but carefully chosen sample can be used to represent the population. The sample reflects the characteristics of the population from which it is drawn. The use of 164 customers was therefore done judgmentally. Also the five top management members of Airtel were interviewed based on the assumption of their in-depth knowledge of the subject. Therefore they were chosen judgmentally.

The researcher used questionnaire and interview guide. This is because questionnaire design asked a specific question and a specific response is provided. The questions were specifically designed to elicit information necessary to achieve the purpose of the research. The interview guide was used to collect information from management of Airtel Ghana Limited in Kumasi.

5.1 Data Analysis Techniques

The responses gathered from users of Airtel mobile telecommunication services were tallied and tabulated according to the items on the various sections of the questionnaire. The results obtained were recorded and put in percentages using tables and charts provided in each section. Analyses were presented using Microsoft excel (spread sheet) to provide descriptions of the data which were made for generalizations and interpretation of the data.

6.0 Data Analysis

Personal Data, Source: Field Work June, 2012.

Most of the respondents (35%) were between the ages 18-29 followed by the 50 - 59 (29%) year olds. 17% were 30-39 years and the least (14%) were between 40 - 49. The above indicates that, majority of the respondents fall within the youth group who has more years ahead to work.

Mobile Network Used Before Porting to Airtel, Source: Field Work June, 2012.

When respondents were asked to indicate the mobile network they were using before porting to airtel 35% representing 57 of the respondents indicated tigo, followed by 49 respondents representing 30% indicated MTN, followed by 25 of the respondents representing 15% indicated expresso, 20% of the respondents indicated Vodafon and none of them indicated glo as network used before porting to airtel.

Time of Porting to Airtel

When respondents were asked when they ported their number to airtel 60 respondents representing 37% said they ported days after the introduction of mobile phone portability. This was due to the fact that most of them wanted to test the system. 31% representing 49 respondents indicated they ported weeks after its introduction. Finally, 35 of the respondents representing 22% said they joined airtel months after introduction of Mobile Number Portability. From the above, it indicates that most of the respondents ported to airtel days after its introduction.

Price Influence on Decision to Port Number Source: Field Work June, 2012.

When the respondents were asked how price influence their decision to port to airtel, majority of the respondents 82 representing 50% indicated very influential, followed by those who mentioned influential thus, 38 representing 23%, also, 12 respondents representing 7% indicated less influential and finally, 10 respondents representing 6% said price did not influence them to port to airtel.

Satisfied with the Service Prices after Porting to Airtel, Source: Field Work June, 2012.

46% representing 75 of the respondent forming the majority indicated satisfied to the question whether they were satisfied with the service prices after porting to Airtel, 67 respondents representing 41% ticked very satisfied; this shows that their expectation concerning price has been met by porting to airtel and finally, 13% indicated unsatisfied which means they do not consider porting to airtel has achieved their expected price goal. Also, when respondents were asked to indicate which of Airtel services they enjoy because of the price 55% representing 90 of the respondents indicated calls; followed by 49 respondents representing 30% indicated text messages, and finally, 25 of the respondents representing 15% indicated internet services.

It is clear that price of calls, text messages and internet charges do have significant influence on customer's decision to port their mobile phone number to Airtel. This is line with Colgate and Hedge (2001) assertion that pricing had the most impact on customer switching in the Africa and Europe mobile industries.

Service Quality delivery before and after the Introduction of MNP, Source: Field Work June, 2012.

From the table four, when the respondents were asked to indicate the extent to which service quality influential their decision to port to Airtel, 74 respondents representing 45% indicated very influential, followed by those who mentioned influential thus, 65 representing 39%, also, 15 respondents representing 7% indicated less influential and finally, 12 respondents representing 7% said service quality did not influence them to port to airtel.

Also, when respondents were asked to rate the service quality of Airtel after the porting, 49 respondents representing 30% rated airtel to be excellent indicating that their expectation had been fulfilled. 37% representing 60 respondents rated airtel very good, followed by 30 of the respondents representing 18% who also rated airtel good. Finally, 15% representing 25 respondents tick poor meaning that they are disappointed by porting to airtel.

Service Quality, Source: Field Work June, 2012.

Service quality delivery before and after the introduction of mobile number portability, the responds showed that service quality had increased ever since MNP was introduced because of the fear of losing their customers. However, there are about 15% of the respondents who still believed that MNP has not improved the service quality of Airtel.

Service Charges and MNP

The management members were in unison that MNP and service charges go hand in hand. The higher the charges, the likelihood of losing customers to other service providers who are providing a similar service at a lower price. They believed that their low services charge was part of their increase in customer subscription through porting in the last year. Before MNP, Airtel was charging as low as Ghc0.70p per minute while its competitors were charging higher which helped them to attract more customers through Porting after the implementation of MNP.

The management re-affirmed their decision to give low service charges to its customers in order not to lose them to competitors and also to entice prospective customers to join Airtel.

Moreover, management substantiated that, low service charges without the provision of good service delivery will be a failure because, its existing customers might tend to port to other service providers for a better service delivery.

MNP and Service Delivery

Prior to the introduction of MNP, management said that, Airtel was vigilant on the quality of service delivery to its customers. However, with the introduction of MNP, management is more vigilant than before. MNP has risen the competitiveness level within the telecommunication industry urging them to build masts across the country to

improve service Quality. In view of this Airtel has introduced several products, packages and service delivery as an enticement to customers and prospective customers.

Airtel introduced the third generation network “3G” which enhanced or made possible a myriad of additional applications such as mobile video, secure mobile e-commerce, location-based services, mobile gaming and audio on demand to its customers. For example, using 2.5G (or a slightly better version of second-generation wireless) a three-minute song takes between six and nine minutes to download. Using 3G, it can download in 11 to 90 seconds.)

In addition “Airtel Frndz” was also introduced on August 11, 2012 to attract, entice and retain customers. “Airtel frndz” enables Airtel customers to subscribe and call up to ten special numbers at the lowest rate of 2.5Gp per minute. Customers also enjoy free night on-net calls to their subscribed Frndz from 11: 00pm (instead on 12:00) if they use a minimum GHC 0.015 within the day. There has also been the introduction of Airtel Classifieds, which will make relevant and important information available to customers right on their mobile phones. Through this service, customers can access information on range of topics by texting the keyword, ‘Class’ to short code 108 or by dialling the USSD *108#. Among the service that could be accessed are job alerts (where users will get daily updates on job vacancies, automobiles (users will receive information on vehicles for sale and where to purchase them), rent alert (users will receive information on accommodation available for rent) and properties (users will receive information on properties available for lease or sale).

7.0 Recommendations

Price Reduction

Since price influence people to port to Airtel, the researcher recommends that the company should use price reduction as their competitive strategy (Cost leadership Strategy). However, the company should monitor their competitor’s pricing strategies since they are not market leaders.

Corporate Social Responsibility

The researcher recommends that the company should involve in a lot of corporate social responsibility since reputation influence people to port to the network.

Establishment of Department

The company should establish department to look into the service quality provided to their customers since poor service quality make people to port to other network.

Improvement of Service Quality

The company should improve service quality, innovative service, coverage area etc, since it benefits both the company and the individual.

Customer Retention Strategy

With this strategy the mobile operator addresses the churn issue by convincing a subscriber not to close their line when and only when that subscriber calls the contact center or visits a dealer to do so. The traditional method used to stem churn has been to offer the subscriber some incentive to stay (like a handset if he or she signs a year-long contract or, a certain number of minutes for a certain number of months for free).

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