Factors Influencing Consumers' Purchase Decision of Mobile Phones in the Mfantsiman Municipality of Ghana

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Abstract
This study sought to explore the factors affecting the purchase decision of mobile phone users and to recommend the policies which may be adopted by producers. The study employed a multiple-stage random sampling technique. The study used primary data gathered from a sample of 500 consumers with the help of self-administered questionnaire. Both descriptive and multivariate statistical techniques were used to analyse the data. The study disclosed a significant relationship between consumers buying decision and the variables of interest including branding, price, technical features, and quality of phones. It is, therefore, recommended that manufacturers should do aggressive advertisement about functionality and the quality of their phones to build strong brand loyalty among the youth. Also, manufacturers should make mobile phones with enhanced technical features and improve upon the quality of their mobile phones. Furthermore, mobile phones should be produced on large scale and be sold at a reduced price to enable the youth and middle income earners to purchase phones of their choice. Not only but also, wholesalers and retailers should purchase and sell mobile phones with enhanced technical features and strong brands.
Keywords: Mobile Phone, Consumer Preference, Branding, Price, Technical Features, Quality
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1. Introduction
Globally, there is an enormous opportunity for mobile phone companies. Since the advent of technology, mobile phones features converted to smart phones have become a dominant commodity for individuals. A recent report by GSMA (Global System Mobile Association, 2019) indicates that there are 4.8 billion unique subscribers and by 2020 it is supposed to reach 5.7 billion subscribers. The penetration rate, which stands at 63%, will grow to 72% by 2020. The report also identifies 81% growth in smart phone market globally. In 2018, almost 300 million people were connected to mobile internet for the first time, bringing the total connected population to more than 3.5 billion people globally. For many of these individuals, mobile phone is the only method of accessing the internet, so growth in mobile internet adoption also drives digital inclusion, especially in low- and middle-income countries (LMICs, 2019). According to Rahim, Safin, Kheng, Abas and Ali (2016), we are now living in an age of digitalization and the application of sophisticated technological devices in our daily life is rising rapidly. The size and shape of these devices are also changing quickly to match the changing taste and needs of consumers. People of different social classes, ages and income levels are very much accustomed with a wide range of technological devices and accessories. The introduction and development of mobile phones in our everyday life is one of the indications of these technological changes (Adekunle & Ejechi, 2018).

Communication through cellular phone has made a significant impact towards interaction among people. Expansion of communication technology such as cellular phone, global positioning system (GPS) and wireless internet are continuously evolving and advancing as a result of changing preferences and needs of consumers (Rahim, et. al, 2016). Mobile phone has become a basic need of a person as a means of communication across the world during the last decade. The development of mobile communication technology e. g. wireless internet, mobile phone, MP3 player, GPS navigation system has been a long journey of innovation, which is constantly evolving and updating as a result of consumers changing needs and preferences (Mokhlis & Yaakop, 2012). Among the diverse modes of communication, mobile phone is one of the most reliable and efficient vehicle to reach wide range of persons within a very short time (Uddin, Lopa & Oheduzzaman, 2014). Lin, Chao and Tang (2017) opine that Mobile phone technology is still evolving and this technological advancement can lead mobile phone journey from 0G (mobile radio telephone) to first generation's 1G (analog signal) to second generation's 2G (digital signal) to third generation's 3G (digital signal and data) and very recent to fourth generation's 4G (high speed audio and video streaming) technology.

Ghana liberalized its telecommunication sector in the early 1990s to provide consumers with better, new and less costly telecom services (Nyarko & Quartey, 2009). This was done through the introduction of a five-year Accelerated Development Programme (ADP) in 1994, with the objective of increasing telephone coverage in the country, by allowing private participation in all sectors of the telecom industry (Frimpong, 2007). As a result of this development, the telecom sector in Ghana experienced tremendous growth and has contributed significantly to the growth of the country over the past two decades. Since 2002, cell phone ownership has exploded in the countries where trends are available. In 2002, only 8% of Ghanaians said they owned a mobile phone, while that

figure stands at 83% today, a more than tenfold increase. According to GSMA Intelligence (2019) Ghana is ranked third in mobile internet connectivity in sub-Saharan Africa after South Africa and Mauritius with respect to market size and potential for further growth. A forecast of the telecommunication services suggests average annual growth of mobile data subscription and traffic by 16.2% and 42.3% respectively between 2015 and 2020. Voice subscription will, however, record a lower annual growth of 8.6% over the same period. The forecast figures for subscription and traffic provide relevant sources of information, as well as a possible guide for the National Communications Authority (NCA) to achieve Ghana's ICT objectives which include promotion of development of the national ICT infrastructure; promotion of the use of ICT in all sectors of the economy; and the provision of affordable broadband for all Ghanaians by 2020 (NCA, 2015).

Karjaluoto et al., (2005) argue that despite the fact that mobile phone handsets have become a fundamental and an integral part of personal communication across the world during the last decade, consumer research has devoted little attention to understanding the factors that influence the choice of mobile phone buying decision. In Ghana, studies have focused on the choice of mobile network providers (Bassey, Aboagye-Asamoah, Nsiah-Ababio, Sarpong, & Obeng-Tuffoh, 2011, Dadzie and Boachie-Mensah (2011). However, the rapid introduction of cheaper versions of mobile phones in Ghana has increased the danger to mobile phone users. Moreover, the rate of competition between companies in the mobile industry has been intensified. Furthermore, limited empirical studies have focused on consumers' choice of mobile phones in Ghana and, particularly, in the Mfantseman Municipality. This study, therefore, sought to examine the extent to which, branding, price, technical features and quality influence consumers' choice of mobile phones in the Mfantseman Municipality of Ghana.

2. Objective of the Study
1. To identify the factors considered by consumers when buying mobile phone.

2.1 Research questions
1. What is the effect of branding on consumers purchase decision of mobile phone?
2. What is the effect of price on consumers purchase decision of mobile phone?
3. What is the effect of technical feature on consumers purchase decision of mobile phone?
4. What is the effect of quality on consumers purchase decision of mobile phone?

3. Theoretical framework and review of related literature
This section discusses the theoretical literature of the study, the empirical studies on factors that influence consumers' choice of mobile phone and the conceptual framework for the study.

3.1 Self-concept theory
Self-concept theory is based on the perception and responses of other people, because the appraisals that individuals obtain from others greatly influence their behaviour (Solomon 2013). According to Pride and Ferrell (2010), self-concept theory defines the consumer within individuals, which can be a person with many images of themselves. This plays a significant role in identifying how consumers behave, since the way in which they perceive themselves influence the brands they prefer, since they wish their choices to be reflected in the products they purchase. Khare and Handa (2009) assert that there is a relationship between consumer brands and the self-concept of individuals. Consumers usually prefer brands that match their self-concepts in order to express themselves to those around them, and show that they conform to the concept being emphasised by the brand's usage. Self-concept is the way in which individuals see themselves, and includes the entirety of their thoughts and feelings when looking at themselves. Consumers define their own self-concepts, which change based on interactions between their psychological and social dimensions. Hoyer, Maclnnis and Pieters (2013) opine that the self-concept theory assists in defining who consumers are, what directly influence their behaviour, and also takes into account how consumers view themselves and how they consider others to view them. Yusuf and Shafri (2013) postulate that self-concept has four different components, which are: the real self-image, which is an individual's total real image; the perceived self-image, which is the way in which individuals view themselves; the looking-glass self-image, which is the way individuals think that people view them; and, lastly, the ideal self-image, which is what individuals aspire to be. Consumers usually prefer brands that align closely with their ideal self-images.

3.2 Stimulus-Response theory
According to Schiffman and Kanuk (2010), consumers respond largely to external stimuli when faced with purchasing situations. Stimulus-Response theory, also known as Classical Conditioning, involves the study of the connections between stimuli and the behaviour with which consumers respond. Stimulus-Response theory operates, when certain stimuli trigger responses from consumers. In this case, stimuli such as brand popularity, prices, social influences, durability, quality and advertising affect the mobile phone brands consumers prefer. Stimuli are external objects, situations or cues that consumers perceive, whilst responses are behaviours by consumers in

reacting to the stimuli (Sahnay, 2007). Stimuli such as, brand, prices, social influences, advertisements, and marketing communications influence these consumer responses, which can lead to either negative or positive brand preferences evolving. Similarly, Cannon and in his assertion Marc Carty (2010) elucidates that Stimulus-Response theory is a learning process whereby stimuli encourage actions. These consumer actions depend on the types of stimuli to which they are exposed. Stimuli are cues which decide when, where and how individuals respond, and marketers influence consumer brand preferences by providing such cues to motivate them. This theory only focuses on external cues, however, and ignores internal cues which also influence mobile phone brand preferences. Stimuli here refer to brand attributes, such as popularity, price, marketing communications and social influences that affect individuals in responding with specific behaviour. When consumers react to stimuli, they therefore influence their purchasing behaviour.

3.3 Consumer Behaviour

Consumers are individuals and households that buy the firms product for personal consumption (Kotler, 2004). It often used to describe two different kinds of consuming entities: the personal consumers and the organizational consumers (Krishna, 2010). The activities these consumers undertake when obtaining, consuming, and disposing of products and a service is known as consumer behaviour. According to Blackwell, Miniard and Engel (2006) consumer behaviour is the activities and processes in which individuals or groups choose, buy, use or dispose products, services, ideas or experiences. The prominence of this concept is that, subsequently companies deal with consumers who diverge in nature, appreciating their behaviours help a company to identify what is imperative to the consumer and submits the key impacts on their decision-making process. This enables producers of mobile phone to provide products with the required technological features that meet the changing needs of their target market. It can also influence the commercial health of an industry in the sense that, it provides a clue for which industry to survive, companies to succeed and also which products to excel (Blackwell et al., 2006). Consumer buying behaviour is influenced by two major factors. These factors are individual and environmental. The major categories of individual factors affecting consumer behaviour are demographics, consumer Knowledge, perception, learning, motivation, personality, beliefs, attitudes and life styles. The second category of factors is environmental factors. Environmental factors represent those items outside of the individual that affect individual consumer's decision making process. These factors include culture, social class, reference group, family and household. The above mentioned factors are the major determinants behind the decision of consumers to opt a given good or service (Blackwell et al., 2006). Several models have been developed to explain consumer purchasing behaviour. Although these models vary in form of presentation, most of them are composed of stages (Rayport & Jaworski, 2003). Correspondingly, Arnould, Price, and Zinkhan (2004) have also proposed the circle of consumption that recognizes purchasing process as a loop, comprising acquisition of goods and services, consumption as well as disposal of used goods. Nonetheless, depending on the purchase decision faced by the consumer, each of the process is carried out. Producers need to realize that depending on the circumstances surrounding the purchase, the importance of each step may vary. As far as consumer decision making process is concerned, consumers need to go through seven steps before reaching their final decision. These steps are Need recognition, Information search, pre-purchase, evaluation, purchase, consumption and Post-purchase evaluation and divestment (Blackwell et al., 2006). They argued that most consumer research would primarily be based on these seven stages, regardless of the different terms and consolidation of stages. The first and crucial stage of consumer decision-making process is the need recognition, when the consumer recognizes a problem or need or responds to a marketing stimulus. After the need recognition, the consumer searches for more useful information about various alternatives in order to satisfy his or her need. The stage of information search can be internal and external. Internal search is the process of recalling information from consumer's knowledge or previous experiences with a product or services. External on the other hand is the information from outside the environment such as family, friends or e-mail. After getting the information of alternative products or services, the consumer then compares among alternatives to be able to decide on the one that fulfils his needs. In this stage, consumers pay particular attention to the attributes which are most relevant to their needs (Kolter, Wong, Saunders, & Armstrong, 2005). The consumer commonly use attributes such as quantity, size, quality and price to judge a brand. During the evaluation process, the consumer selects the product or service which initiates the decision-making process. After the evaluation stage, the consumer then decides to purchase the product. This is followed by stages five, six and seven put under the post-purchase stage. The consumer begins consuming the product in stage five whereas in stage six, consumers evaluate the consumption process. This gives rise to satisfaction when consumers' expectations are higher than the perceived performance and vice versa (Blackwell et al., 2006). In the last stage, the satisfaction or dissatisfaction with the purchase made will then influence the consumer's decision process for the next similar purchase.

3.3.1 Branding and consumers' purchasing behaviour

Keller (2013) defines brand name as signs or symbols used to identify products in one group from those in different groups. Brands create awareness and cause consumers to remember products. In their assertion Levy and Weitz (2012) also define brands as being different names, such as logos, that distinguish the products of one company

from those of their competitors. Brand names not only identify manufacturers of products, but also provide consumers with a focus for their preferences, which gives them the assurance of certain levels of brand quality.

In line with the above definitions, an inference can be drawn that brands comprise of different objects, depending on what manufacturers or merchants provide. They are primarily used to distinguish between related products of competitors. In the mobile phone industry, many different brands, such as Techno, Itel, Samsung and Apple, exist to offer the same or similar satisfaction to consumers.

In their research, Azira (2016) examined factors influencing purchasing intention of Smartphone among university students in Malaysia. The study revealed that brand name significantly influence consumers purchase intention for mobile phones.

Marumbwa (2013) conducted a study in Zimbabwe to identify the effect of brand image on consumer choice of mobile phone. The study revealed that brand image positively influence preference and increase in customer satisfaction levels of mobile phone selection and usage.

Sata (2013) conducted an empirical research based on survey method to study the factors that influence consumers' choice of mobile phone. The study indicated that, a handset of reputed brand is the choice of young consumers.

Hence, the following hypothesis is propossed

H1: Branding has significant influence on consumers' mobile phone purchase decision.

3.3.2 Price and consumers' purchasing behaviour

Kotler, Armstrong, Agnihotri & Haque, (2010) define price as the sum of money that consumers usually pay for acquiring and using any product. A study was done by Eric and Bright (2008) to determine the factors that influence the choice of brands of mobile phone in Ghana, specifically, Kumasi Metropolis. The results of the study revealed that the first most important factor considered by consumer in purchasing a mobile phone is reliable quality of the mobile phone brand.

Ala'a and Yaser (2015) conducted a research in Jordan. The study concluded that price is an important factor with regard to brand preferences for mobile phone users because of the economic situation in the country of their study.

According to Akhtar et al. (2013), also conducted a study of mobile phone feature preferences and consumer patterns for students at the University of Sargodha. The study revealed that 68.8 percent of respondents prefer moderately-priced mobile phones, whilst 14.2 percent prefer high-priced phones.

In their research Park et al. (2014) similarly detected that price as the most critical factor affecting choice of mobile phones, particularly with respect to younger consumers.

Notwithstanding, Dziwornu (2013), studied the factors affecting mobile phone purchases in the Greater Accra Region of Ghana. The study revealed that there is no significant relationship between price and mobile phone purchasing decisions of consumers.

Therefore, the researcher proposed the hypothesis:

H2: Price has significant influence on consumers' mobile phone purchase decision.

3.3.3 Technical features and consumers' purchasing behaviour

Kushagra et al (2017) did a research by sampling 417 respondents on Impact of Brand Cues on Young Consumers' Preference for Mobile Phones. The researchers used Conjoint Analysis and Simulation Modelling. They concluded that the technical attributes such as camera quality, RAM, Operating system and battery power greatly influence consumers' choice of mobile phone.

Joshi Sujata (2016) conducted a study on factors affecting consumers purchase decision of mobile phone. The data was collected from 306 respondents. The study revealed that technology factor is one of the main determinants of consumers purchasing intent of mobile phones.

Tariq Bhatti (2015) conducted an exploratory study on the factors influencing mobile usage and purchasing decision. Data was analysed using regression analysis. The study revealed that Technical features mostly affect the buying decision of users of mobile phone.

Uddin, Reaz, NusratZahanLopa and Oheduzzaman (2014) conducted a study on factors that affect consumers purchasing decision of mobile phones in Khulna city. Respondents for the study were selected using convenient sampling technique. The data was collected using structured questionnaire. The study revealed that Technical features mostly affect the buying decision of users of mobile phone.

Rijal (2013) studied the criteria that student prefer while purchasing a mobile phone. The study disclosed that technical features such as internet play a very important role in choosing branded mobile phones.

In his research, Malasi (2012) surveyd the influence of product attributes on mobile phone preference among university students in Kenya. A stratified random sampling technique was used to select the respondents for the study. Data was collected through the use of self-administered of questionnaires. Data was analyzed using the SPSS software. The study revealed that technical attributes such as colour themes, visible name labels, and mobile phone with variety of models, packaging for safety, degree of awareness on safety issues, look and design of the phone significantly influence student's preference of mobile phone.

Singh (2012) conducted a study to identify customer preferences towards various mobile phone handsets in Punjab. The study used primary data for the analysis. The study that technical features such as multimedia options significantly influence the purchase behaviour of mobile phones users.

Liao, Yu-Jui (2012) investigated the determinants factors in smart phone purchases. The result of the study confirmed that consumers consider the product design and integration of hardware and software as important features when choosing Apple iPhone.

Liu (2002) in a recent paper analyzed factors affecting the decision regarding brand in the mobile phone industry in Asia. The study disclosed that consumers' choice of mobile phone brand is influenced largely by features such as better capacity and larger screens more than size of the phone.

Therefore, the researcher proposed the hypothesis:

H3: Technical feature has significant effect on consumers' mobile phone purchase decision.

3.3.4 Quality and consumers' purchasing behaviour

A study was conducted by Alfred Owusu, in 2013 to identify the factors that influence consumer decision to purchase mobile phone. The study revealed that quality of the mobile phone is one of the major factors the influence consumer to purchase mobile phone in the Kumasi Metropolis. The data was collected through personal interview, questionnaire and pricelist of the chosen mobile phones. The study had revealed that both price and quality having high influence on consumers purchase decision.

Khan and Rohi (2013) conducted a study to determine the factors which affect the youth's brand choice for of mobile phones. Data for the study was collected from the private university students of City University and Sarhad University, Peshawar using self-administered questionnaire. The questionnaire was distributed randomly among 110 sampled respondents, to measure their brand choice criteria. The responses were measured by using descriptive statistics, regression and coefficient analysis. The study revealed that quality of mobile phone mainly affect consumers' choice of mobile phone brand.

Therefore, the researcher proposed the hypothesis:

H4: Quality has significant influence on consumers' mobile phone purchase decision.

3.4 Conceptual Framework for the Study

The figure illustrates the relationship between mobile phone purchase decision and the variables of interest for the study, which are brand, technical feature, durability, and entertainment.
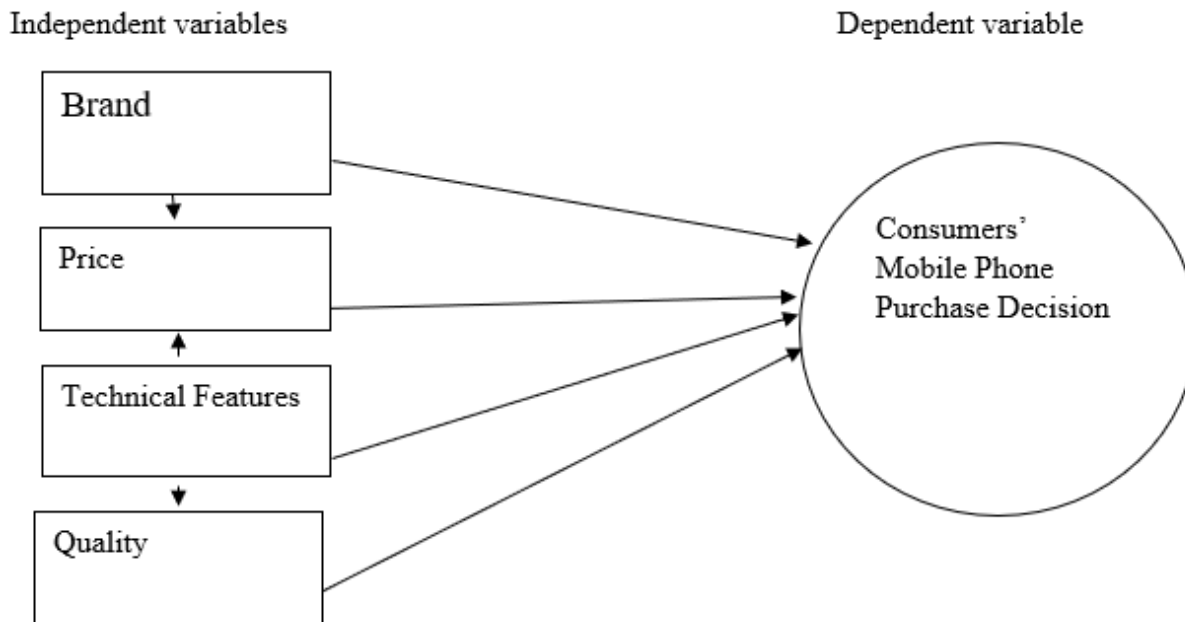
Figure 1: A conceptual framework illustrating the relationship between consumers' mobile phone purchase decision and other factors

Source: Author's construct, 2020

The conceptual framework, as shown by Figure 1, demonstrates the influence that the explanatory variables of this study have on the dependent variable. Studies have proven that these explanatory variables (brand, price, technical features and quality) influence the decision of consumers to purchase mobile phones for communication and other activities. According to Tran (2018) argue that anytime consumers intend to buy a smartphone, they usually consider brand name, product quality, product price, recreational capability, function ability and durability which also applicable to basic features of phones. Some of the empirical studies such as Rahim et al., 2016;

Mokhlis and Yaakop (2012) have also suggested other variables which affect consumers' intent to purchase mobile phone. It was, therefore, deemed prudent for these explanatory variables to be chosen as the variables of interest for this study under consideration.

5. Research methodology

5.1 Study Design
The study employed quantifiable research design. The quantitative approach involves statistical analysis and relies on numerical evidence to examine relationships between variables and draw conclusions (Burns & Grove, 2011). Following the objectives of this study a descriptive cross sectional survey design is adopted. This was considered appropriate, since the study involved the description of determinants of consumers' mobile phone purchase decision. Cohen, Manion and Morrison (2011) expounded that descriptive design provides a meaningful picture of events under consideration.

5.2 The study Area
The study was conducted in the Mfantsiman Municipality of Ghana. Mfantsiman Municipality is one of the 17 district assemblies in the Central Region of Ghana. The municipality is bounded on the South by the Atlantic Ocean, west by Cape Coast Metropolis, east by Ekumfi District and north by Ajumako District. It is geographically located between latitude 5^0 south to 5.12^0 north and longitude 1^0 east and 1.4^0 west. The total land area covered by the municipality is 533 kilometers square. The capital, Saltpond, used to be the ancient commerce hub of the Gold Coast, currently, Ghana. The inhabitants are mainly employed by farming, fishing and trading. The municipality can boast of one of the biggest market (Mankessim market) in Ghana (GSS, 2014).

5.3 Population and sample
The population for the study was all the mobile phone users in the Mfantsiman Municipality. A multistage random sampling technique was used to select the sample size for the study. In the first stage, six (6) major towns (Saltpond, Mankessim, Anomabo, Kormantse, Yamoransa and Dominase) were purposively selected. These are towns with a high concentration of commercial activities in the Municipality. Finally, simple random sampling method was then applied to randomly select 100 mobile phone users from each of the five towns to obtain a total of 500 mobile phone users in the study area.

5.4 Instrumentation
Structured questionnaire was used to collect primary data from respondents. The questionnaires were structured and respondents were required to tick only one option to reflect their choice. Kusi (2012) describes advantages of using questionnaire such as quick analysis, research participants feeling more comfortable in responding to pre-determined responses than items that require them to express their opinions, and anonymity of data collected. The questionnaire covered areas such as demographic characteristics of users of mobile phones, brand name, technical features, price and quality of mobile phone. Consumers purchase decision, branding, technical features, price and quality of the product were measured with a five-point Likert-type of rating scale, with the point being: Strongly agree=5; Agree=4; somewhat agree=3; Disagree=2 and strongly disagree=1. The Likert scale is the most widely used method of scaling in the social sciences (Title & Hill, 1967).

5.5 Data Analysis
Prior to the quantitative analysis, the data was cleaned and poorly answered questionnaires were eliminated. In all, 500 out of the 540 administered questionnaires were deemed appropriate for analysis. Data gathered from the field were edited to guarantee cohesion and reliability of information acquired. Edited data were processed electronically using the Statistical Product for Service Solution (SPSS 22.0 version). This made the analysis quicker and expedient. Multinomial logistic regression and Marginal effects results were derived, using the Stata software (version 13) to determine the association between the dependent and the independent variables. The descriptive statistics were presented in tables for clear understanding of results.

6. Results and Discussion
6.1 Demographic Characteristics of Customers of Mobile Phone Users in the Mfantsiman Municipality
This part of the study explains the demographic characteristics of users of mobile phone in the Mfantsiman Municipality. Information such sex, age, educational status, income and employment status were obtained from respondents. Data was gathered from five hundred respondents who agreed to participate in the study and provided the appropriate responses to the questionnaire.

Table1 indicates that, among the 500 respondents, 295 (51.80%) were males and 241 (48.20%) were females. This result corroborates the finding of

With regard to age as a variable as indicated in Table1, 195 respondents were between 18 and 30 years all

inclusive representing 39.00 percent followed by 31- 40 year group with 165 all inclusive representing 33.00 percent. Also, between the ages of 41 and 50 all inclusive, there were 95 consumers representing 19.00 percent of respondents in that age group. Moreover, those above the age 51 years were 45 representing 8.40 percent of the respondents sampled for the study. This result indicates that majority of the respondents fall within the youth and the economically active population cohorts (thus 18-50 years) having a cumulative frequency of 455.

Table 1: Frequency Distribution of Phone Users Demographic Characteristics.

Customer Characteristics	Frequency	Percentage
Sex		
Male	259	51.80
Female	241	48.20
Total	500	100.00
Age (in years)		
18-30	195	39.00
31-40	165	33.00
41-50	95	19.00
51 and above	45	8.40
Total	500	100.00
Educational Level		
Basic School	61	12.20
Secondary School	134	26.80
Tertiary Education	305	61.00
Total	500	100.00
Employment status		
Employed	285	57.00
Unemployed	215	43.00
Monthly Income		
50-499	100	2.00
500-999	173	34.60
1000 and above	227	45.40
Total	500	100.00

Source: Field Survey, 2020

The result also, shows that majority of the respondents, thus 305 (61.00%), had attained tertiary education as presented by Table1. Additionally, 134 (26.80%) had attained secondary education and 61 respondents had acquired Basic education. This result indicates purchasing and usage of mobile phone is high among the educated elites in the Mfantsiman Municipality.

As far as the employment variable is concerned, the study disclosed that 285 (57.00%) of the respondents were gainfully employed. For the respondents who were unemployed, majority of them thus 215 (43.00%) were students. This presents a great opportunity and future prospect for wholesalers and retailers of mobile phones in the Mfantsiman Municipality and in Ghana as a whole since most of the respondents will be gainfully employed after their education and would need mobile phones to do their work and for communication purposes. This result is consistent with the finding of Rijal (2013) that student prefer mobile phones with technical features such as internet, high RAM and quality battery when choosing branded mobile phones.

Table 2 also presents the descriptive statistics of the brand of phones, years of using current phone, and network subscribed by mobile phone users. The result in Table2 shows that Techno is the leading brand of phone used by respondents followed by Samsung as the main brands of mobile phones being used by respondents in the study area. The two brands of phones together constitute about 72 percent of phones used by the respondents who participated in the study. While about 48.20 percent of the respondents are using Techno phone, 23.80 percent are using Samsung. This is an indication of preference for Techno and Samsung brands of phones among the respondents in the Mfantsiman Municipality. The implication is that users of Techno and Samsung phones may continue to use these brands of phones if producers and marketers of these phone brands produce and market products that have attributes that meet the taste of their consumers. Also, about 38 percent of respondents have so far used their current phones for only one year. This indicate that respondent change their phones regularly. Besides, only 1 percent of respondents have been using their current mobile handsets for over 5 years. This indicates that respondents are not loyal to any brand of phone. Producers and marketers should take the opportunity to build their brands in the mind of the users of mobile phones in the Mfantsiman Municipality. The study again revealed that 52.20 percent of respondents have subscribed to their current MTN. While about 27 percent of the respondents are Vodafone subscribers, 17 percent and 5.2 percent of the respondents are AirteltiGO and GlO subscribers respectively. This result corroborates the finding of Bassey et al., (2011) that 53 percent of respondent interviewed are subscriber of MTN. This is not surprising because MTN has the largest subscriber base in Ghana.

Table 2: Descriptive statistics of users of mobile phone and their responses.

Variable	Frequency	Percentage
Brand of phone		
Samsung	119	23.80
Techno	241	48.20
Itel	109	21.80
Apple	31	6.20
Total	500	100.00
Years of using phone		
One-Two	190	38.00
Three-Four	170	34.00
Five and above	90	18.00
5 and above	50	1.00
Total	500	100.00
Network subscribed		
MTN	261	52.20
VODAFONE	135	27.00
AIRTELTIGO	73	14.60
GLO	31	6.20
Total	500	100.00

Source: Field Survey, 2020

6.2 Factors Influencing Consumers Purchase Decision of Mobile Phones

Given the roles that the control and the variables of interest play in the decision making process of consumers, it is significant to identify the proportion that each contributes to consumers mobile phone purchase decision in the Mfantsiman Municipality of Ghana. The variables of interest were branding, technical features, price and products quality. The data was analysed into means and standard deviation based on the variables of interest and their relationship with the dependent variable. The results revealed that the variables of interest highly influence consumers' purchase decision in the Mfantsiman Municipality in the Central Region of Ghana.

Table3: Branding and Consumers Purchase Decision   **N=500**

Branding	Mean	Standard Deviation
I considered the name of the phone before buying it	3.9880	.005997
I considered the reputation of the phone before buying it	3.8163	.021286
My phone represent my social class	3.8223	.021011
My phone has a lot of operational functions	3.8645	.018815

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%

Source Field Survey, 2020.

The overall mean (3.87) result of branding as shown in Table 2 is very high. This is because it is above the midpoint of 2.5 on the 5-point Likert scale as indicated in Table2. This result denotes that branding has a major impact on respondents' decision to purchse a phone for communication and other purposes. This result confirms the finding of Azira (2016) brand name and reputation influence the decision to purchase mobile phone. In support of this assertion, Sata (2013) states that brand image and reputation influence consumers' choice of mobile phone.

Table 4: Price and Consumers Purchase Decision   **N=500**

Price	Mean	Standard Deviation
I compared the price of with other phones before buying it	3.6807	.028000
Average price of the phone influenced me to buy it	3.7440	.024736
Lower price of the phone influenced me to buy it	3.6807	.280000

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%

Source: Field Survey, 2020.

The overall mean (3.71) result of price as indicated in Table 3 is regarded as very high, since it is above the midpoint of 2.5 on the 5-point Likert scale. This result affirms that price of a mobile phone affect respondents' decision to purchase a phone. This result is in line with the finding of Ala'a and Yaser (2015) that price has major influence on the choice of consumers' mobile phone brand. This result also corroborate the finding of Park et al. (2014) that the most critical factor affecting the purchasing decision of mobile phone users is price. However, this result is inconsistent with the finding of Dziwornu (2013), there is no significant relationship between price and mobile phone purchasing decisions of consumers in Accra.

Table5: Technical feature and Consumers Purchase Decision		N=500
Technical feature	**Mean**	**Standard Deviation**
Cameras on the phone influenced me to buy	3.9669	.009838
Battery strength of the phone influenced me to buy	3.9337	.013672
The media player on the phone influenced me to buy	3.8163	.023713
Ability of the phone to support internet	3.8404	.021866

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%
Source: Field Survey, 2020.

The overall mean (3.89) result of distance to bank location as indicated by Table 4 is regarde as very high, since it is above the average point of 2.4 on the 5-poin Likert scale. This result indicates that, technical features of mobile phone is significant in explaining respondents' decision to purchase a phone. This result confirms the findings of Kushagra et al (2017) and Joshi Sujata (2016) that the technical attributes such as camera quality, RAM, Operating system and battery power greatly influence consumers' choice of mobile phone.

Table 6: Quality and Consumers Purchase Decision		N=332
Quality	**Mean**	**Standard deviation**
Durability of the phone influenced me to buy	3.6755	.044888
The number of usable years influenced me to buy	3.6331	.043887
Frequency of servicing the phone influenced me to buy	3.6755	.043777
Ability of the phone to function well influenced me to buy	3.7861	.025206

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%
Source: Field Survey, 2020.

With regard to durability of mobile phone offered by manufacturers, the overall mean (3.70) result as shown in Table 5, is very high. It is above the midpoint of 3.4 on the 5-point Likert Scale. This indicates that, the durability of the phone influence respondent decision purchase it. This result is consistent with the finding of Khan and Rohi (2013) that quality of the mobile phone is one of the major factors the influence consumer to purchase mobile. This result also confirms the finding of Alfred Owusu (2013) that to identify the factors that quality of mobile phone has high influence on consumers purchase decision in the Kumasi Metropolis.

The results offer conclusive support to the fact that branding, price, technical feature and durability of the mobile phone influence consumers' choice purchase decision in the Mfantseman Municipal. Generally, the overall mean result of the variables of interest fell within the very high range of the 5-point Likert Scale. Therefore, manufactures, wholesalers and retailers of mobile phones the in Ghana should consider branding, price, technical feature and durability of phone as a means of increasing their sales level in the wake of the economic crises due to the Covid-19 pandemic in the world.

7.1 Conclusions and recommendation

The main aim of this research is to analyse the factors capable of influencing the purchase decision of consumers of mobile phones. The study revealed that branding significantly affect mobile phone purchase in the study area. Wholesalers and retailers of mobile phones should consider the brand of phones they purchase for sale. The study also, reveals that consumer consider product features when buying mobile phones. Mobile phone manufactures should therefore, produce phone with technical features of users demand for, e.g. camera with higher image resolution, operating system which is fast, Bluetooth, internet compatible and other innovative product features to serve the changing needs and growing demand of high and middle income earners. This can help to improve product demand and enhance the profit and sales margin of wholesalers and retailers of phones. Moreover, the price of the phones was also significant in explaining respondents' decision to purchase mobile phones. This clearly indicates that mobile phone manufacturers have to produce phones with high-end features but at lower cost and sell them at low price. The quality of phone was also significant in influencing consumers to purchase phones. Generally people are looking for quality brand of phones at cheaper price. So, mobile phone manufactures should produce phones of high quality and at moderate price. Most people are less price sensitive when the quality of the product is high and has very good technical features. Future research has to be conducted by increasing the number of variables and over bigger geographical area to ensure reliability and validity of the results.

It is also, therefore, recommended that manufactures and marketers of mobile phones should consider producing and selling phones with modern technology features that are more durable and of high quality. They should also produce and market phones that are targeted at the educated youth. Finally, the Consumer Protection Agency should also sanction service manufacturers and marketers of low quality phones which are dangerous to the health of the consumers. This will encourage the production and sale of quality and better phones in Ghana.

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Appendix

Table 1: Frequency Distribution of Phone Users Demographic Characteristics.

Customer Characteristics	Frequency	Percentage
Sex		
Male	259	51.80
Female	241	48.20
Total	500	100.00
Age (in years)		
18-30	195	39.00
31-40	165	33.00
41-50	95	19.00
51 and above	45	8.40
Total	500	100.00
Educational Level		
Basic School	61	12.20
Secondary School	134	26.80
Tertiary Education	305	61.00
Total	500	100.00
Employment status		
Employed	285	57.00
Unemployed	215	43.00
Monthly Income		
50-499	100	2.00
500-999	173	34.60
1000 and above	227	45.40
Total	500	100.00

Source: Field Survey, 2020

Table 2: Descriptive statistics of users of mobile phone and their responses.

Variable	Frequency	Percentage
Brand of phone		
Samsung	119	23.80
Techno	241	48.20
Itel	109	21.80
Apple 31 6.20		
Total	500	100.00
Years of using phone		
One-Two	190	38.00
Three-Four	170	34.00
Five and above	90	18.00
5 and above	50	1.00
Total	500	100.00
Network subscribed		
MTN	261	52.20
VODAFONE	135	27.00
AIRTELTIGO	73	14.60
GLO	31	6.20
Total	500	100.00

Source: Field Survey, 2020

Table3: Branding and Consumers Purchase Decision   N=500

Branding	Mean	Standard Deviation
I considered the name of the phone before buying it	3.9880	.005997
I considered the reputation of the phone before buying it	3.8163	.021286
My phone represent my social class	3.8223	.021011
My phone has a lot of operational functions	3.8645	.018815

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%

Source Field Survey, 2020.

Table 4: Price and Consumers Purchase Decision   N=500

Price	Mean	Standard Deviation
I compared the price of with other phones before buying it	3.6807	.028000
Average price of the phone influenced me to buy it	3.7440	.024736
Lower price of the phone influenced me to buy it	3.6807	.280000

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%

Source: Field Survey, 2020.

Table5: Technical feature and Consumers Purchase Decision   N=500

Technical feature	Mean	Standard Deviation
Cameras on the phone influenced me to buy	3.9669	.009838
Battery strength of the phone influenced me to buy	3.9337	.013672
The media player on the phone influenced me to buy	3.8163	.023713
Ability of the phone to support internet	3.8404	.021866

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%
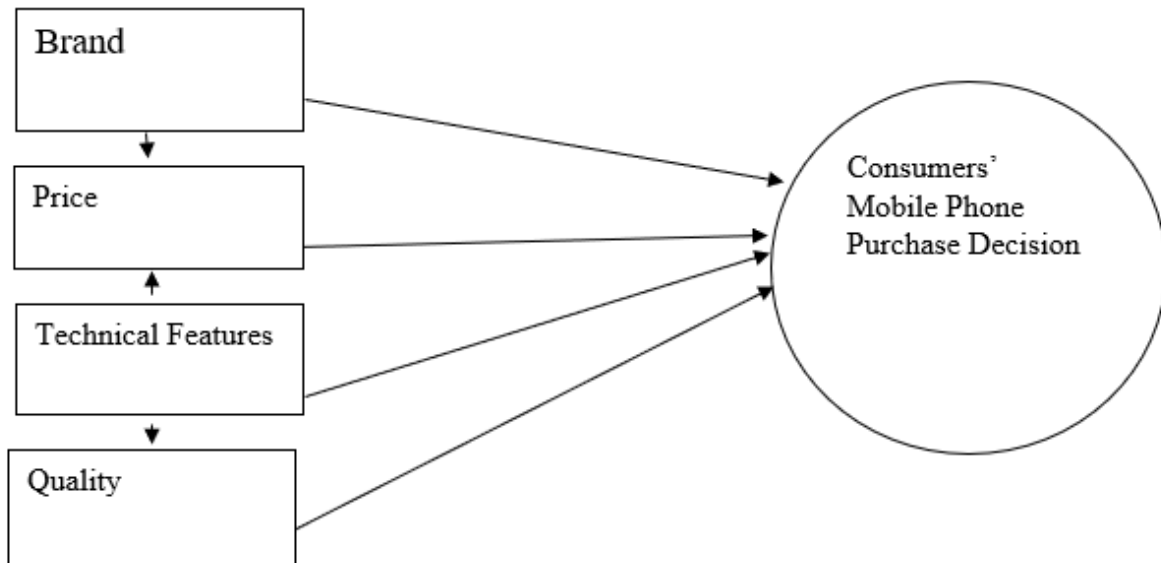
Source: Field Survey, 2020.

Table 6: Quality and Consumers Purchase Decision		N=332
Quality	**Mean**	**Standard deviation**
Durability of the phone influenced me to buy	3.6755	.044888
The number of usable years influenced me to buy	3.6331	.043887
Frequency of servicing the phone influenced me to buy	3.6755	.043777
Ability of the phone to function well influenced me to buy	3.7861	.025206

*Scale (Mean): 0-1.4=Very low, 1-1.5=low, 2-2.4=Average, 2.5-3.4=High, 3.5 &above=very high, *Denotes significant level of 5%

Source: Field Survey, 2020.

Figure1

Figure 1: A conceptual framework illustrating the relationship between consumers' mobile phone purchase decision and other factors
Source: Author's construct, 2020