UNIVERSITY OF CAPE COAST

CORPORATE SOCIAL RESPONSIBILITY AND BRAND EQUITY –THE PERCEPTION OF STUDENTS AT THE UNIVERSITY OF CAPE COAST

ADWOA YEBOAA OWUSU

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BY

ADWOA YEBOAA OWUSU

THESIS SUBMITTED TO THE DEPARTMENT OF MANAGEMENT STUDIES, SCHOOL OF BUSINESS, UNIVERSITY OF CAPE COAST IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF COMMERCE DEGREE IN MARKETING

2013

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature:………………………… Date: ……………………

Name: Adwoa Yeboaa Owusu

Supervisor's Declaration

I hereby declare that the preparation and presentation of this thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature:……………………Date: ……………………

Name: Mr. Francis O. Boachie-Mensah

Co-supervisor's Signature:…………………………Date……………………….

Name: Mr. Kwamina Minta Nyarku

ABSTRACT

The study sought to investigate the relationship between corporate social responsibility and brand equity in the telecommunication industry of Ghana. The study followed a descriptive survey research design. The researcher used a combination of simple random sampling, stratified random sampling and purposive sampling techniques to select the final sample size of 500 students from the University of Cape Coast who are subscribed to the various telecom networks. Simple random sampling was used to select four out of the six telecommunication companies used for the study. The researcher designed a questionnaire, which consisted of both close- ended and open-ended items. This served as the primary instrument for data collection. The statistical techniques used in analysing the data were mean, standard deviation, frequencies, correlation and stepwise multiple regression. Data analysed revealed that: the telecom companies were actually involved in CSR activities; customers perceived that the telecom companies were more interested in social and economic CSR projects; there was indeed a positive relationship between CSR and brand equity; the overall best predictor of brand equity was social dimensions; and different CSR dimensions influenced the individual dimensions of brand equity differently. The study recommends that telecom operators should undertake relevant CSR projects.

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DEDICATION

This work is dedicated to my husband, Solomon Owusu Yeboah. Without him, this research work would certainly not have been possible.

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CHAPTER ONE

INTRODUCTION

Background to the study

Marketing has seen many changes since its inception in the twentieth century. In today's ever-competitive world, marketers are faced with the challenge of ensuring that their products stand out and become the household name. From a period of producing what was available through using aggressive marketing tactics to sell products to the point where customers dictate what should be produced, marketers have come to the realisation that current marketing is customer-centered. For organisations that operate in a highly competitive environment, the struggle to survive is even more pronounced. This is because such competition means market 'maneuvering' for buyer patronage. As Thompson, Strickland and Gamble (2011, p.61) succinctly put it, 'a market is a competitive battlefield where there is no end to the maneuvering for buyer patronage. Rival sellers employ whatever weapons they have in their business arsenal to strengthen their market positions, attract and retain buyers and earn good profit'.

For most marketers, the experience is that it is cheaper to retain a customer than to get a new customer. This assertion is logical since most customers who rate services as excellent will repurchase from that organisation and are highly unlikely to switch to another product. This situation has made the marketing function more critical since marketing is the very essence of every organisation. Current trends suggest that 'businesses have been transformed: where they once sold products on a transaction basis and behaved as if they were constantly in a customer acquisition mode, they now strive to retain customers to ensure increased spending on products and services' (Hair, Bush & Ortinau 2003, p.127). Of course, this is not to say that marketers do not wish to broaden their customer base but rather that the first step in ensuring success for businesses is retaining its current customers and from then on, taking other actions-like enticing newer customers.

One construct that readily comes to mind in an attempt to attract and retain customers is brand equity. According to Kotler and Keller (2009, pp. 278-279), brand equity is the added value endowed on products and services. It may be reflected in the way consumers think, feel and act with respect to the brand as well as in prices, market share and profitability the brand commands for the business. To better appreciate the concept of brand equity, it would be helpful to understand the strategic role of brands in marketing and especially, to businesses. In a situation where products, markets and industry boundaries are in flux, a well-managed brand can be a prime source of strategic direction and competitive advantage. In fact, a brand is the solution to attracting and retaining customers. Today, branding is such a strong force that anything from salt to water is branded. Brands are very important because they identify the sellers or makers of products and so protect both consumers and producers from competitors who would attempt to provide products that appear to be identical. Brands also have the ability to reduce the primacy of price in making purchase decisions. This accentuates the bases of product differentiation giving customers better reasons for choosing particular brands. Essentially, brands are a seller's promise to consistently deliver a specific set of features, benefits and services to the buyers. This enables the seller the opportunity to attract a loyal and profitable set of customers. When an organisation has control over its customers it gives sellers some protection from competition and greater control in planning their marketing programmes. Finally, strong brands help build the corporate image, making it easier to launch and gain acceptance by distributors and customers. Managing a positive brand image creates opportunities to introduce new products that build on brand equity. It helps to attract and retain good employees and stockholders (Drypen, 2008)

Brands are the major enduring asset of a business, outlasting the organisation's specific products and facilities (Kotler & Armstrong, 2010) and brand equity is that which elevates a brand from its competitors. For most businesses, the challenge is to build brands out of products so that their offerings can be attractive to customers. The degree to which customers value a brand, prefer it, and are loyal to it in relation to a competing brand measures a brand's equity. The success of a brand is determined by the value customers place on it. This value is exhibited through customers' willingness to be identified with that brand irrespective of its price. Successful brands have brand equity because, to the customer, they are valuable. This intangible asset is what all marketers seek to have so that they can have the assurance that they can be successful. Since the answer to success is known, the big question for marketers then is: how do marketers attain brand equity? This question is important because, as discussed earlier, marketers are now more than ever faced with the challenge of attracting and retaining their only source of revenue-customers.

Effective marketing is probably the best strategy in attaining brand equity. Scholars (e.g., Wang, 2010; Zhu, 2009) have shown that advertising, promotion, events management and customer characteristics affect brand equity –that has been explained as 'the value customers ascribe to products'. Traditionally, marketers have concentrated on the marketing mix for achieving brand equity. Marketers manipulate these variables (the marketing mix) to give the desirable effect in response to changing market situations. These variables are product, price, place and promotion. In the case of services, they are extended to include people, physical evidence and process. Marketers ensure that all these variables are balanced in order for their brands to attain brand equity. However, with the proliferation of products with enhanced features and performance as well as media clutter, it has become challenging for firms to be merely comfortable with a balanced marketing mix.

If all the businesses in the same industry are working to balance their marketing mix variables then the issue is where lies the difference? What can a business do to ensure that its brands 'stay on top'; that is, brands are strong enough to attract and retain customers? This trend is becoming worrying since the inability of firms to differentiate their brands and enhance their value means eventual extinction. If businesses require strong brands to survive then it would be reasonable to assume that the issue of brand and brand equity is especially pronounced in very competitive industries.

In their frantic effort to attain brand equity, marketers and for that matter businesses seem to be developing several creative efforts. Businesses are seriously trying to appeal to the consciences and not just the monies of their customers. They are beginning to realise that apart from the core customer value derived from the product, customers expect products to satisfy and delight them in various ways. Empirically, there is substantial evidence that one such way is through corporate social responsibility (Fan, 2005; Hoeffler & Keller, 2002; Jokanović, 2005; Kitchin, 2003; Nan & Heo, 2007; Tam, 2007; Tong, 2006; Yeboah, 2012; Zhu, 2009).

Corporate social responsibility (CSR) is businesses' responsibility to the society within which they operate. Socially, it can also be observed that this expectation has grown over the years because governments alone cannot carry the burden of developing the society. Besides, contemporary marketing expects that corporate social responsibility should have an impact on brand evaluations, brand choice and brand recommendations (Klein & Dawar, 2004).

Several arguments have been made in an attempt to explain whether catering for the society should be part of the objective of business organisations. To put the issue in proper perspective, it would help to understand what a business organisation does. Typically, it consists of a group or a unit of people working with a common objective of maximising profit by providing goods and services to satisfy human needs. For most organisations, their responsibility is to maximise shareholders' wealth, i.e., to increase the value of the firm's investment. To achieve this, the concentration has always been on the provision of goods and services. In addition to this, such businesses ensure that they act as good citizens of the society. This they do by making legitimate profit, paying taxes and royalties, and not harming the environment.

Though arguments have been made against this business attitude, several other issues have also been raised for businesses to expand their corporate responsibilities. In fact, "doing good" seemed to be the new slogan for many brands in 2010 in most developed economies. After the economic misery and banking crisis, consumers now want to be associated with brands that believe more than a profit (Kaur & Agrawal, 2011). Contemporary management practices require that business organisations be more responsive to the needs of society. It can be observed that many businesses are warming up to the concept of corporate social responsibility. They are beginning to understand that to continue to stay in business they need to make themselves and their products attractive to customers through innovative moves, especially by being responsive to the needs of the society in which they operate. According to research carried out by Cone Inc. in 2009, 79 percent of consumers would switch to a brand associated with the good cause. Owing to these developments there is the possibility that, in the attempt to build strong brands in highly competitive markets, marketers can employ corporate social responsibility.

Ghana's telecom sub-sector has seen dramatic changes since the last decade. From a highly monopolised system to an extremely competitive market, these changes have affected their operation in the country. Frempong (2004) in (Agyepong, 2009) gives a vivid account of how the telecom industry began in the 1970s. It states that the foundation for a modern telecom sector was laid in the 1970s, when the Posts and Telecommunication Department was converted to the Ghana Post and Telecommunication Corporation (P&T) under the National Redemption Council (NRC) Decree 311, 1974. The Corporation was put under the Ministry of Transport and Communications. The decree gave the P&T the exclusive right to install, operate and regulate telecommunication services as well as operate postal services in the country. However, it lost some of its regulatory functions, especially frequency management, when the Ghana Frequency Registration and Control Board was granted the authority to issue license and allocate frequency spectrum for the operation of radio communication (Agyepong, 2009).

The deregulation of the telecom sub-sector in Ghana gave way for the first private telecom initiative in 1992 by Mobitel, now Tigo. Other players then had the opportunity to provide telecom services. Each of these companies, as we have now, has had its own share of transformation; changing from one owner to the other. The influx of these companies has resulted in the penetration of mobile phone usage in the country. Wikipedia (2012) reports that, as at December 2011, the penetration rate over an estimated population of 24.9million was estimated to be 84.9 percent. The National Communication Authority (NCA) reports that there were 27,012,099 mobile phone subscribers in Ghana in June, 2013.

These statistics are not surprising considering the vital role of communication in our everyday lives. It contributes to every aspect of life. It is the means through which all daily transactions and activities are undertaken. It aids decision-making, organizing, influencing, activating, instructing, providing feedback, promoting interpersonal and business relationships as well as exchange of information. All social, economic, political, cultural, trade and commercial activities are undertaken using telecommunication (Agyepong, 2009). Really, there is a high demand for their offerings.

For the players in the telecom sub-sector, the challenge is how to win over each other's customers and most especially how to retain their customers. This is because they seem to thrive on numbers and so do all they can to attract, as many customers as they can, through various marketing efforts. Prominent amongst them are advertisement, sales promotion, personal selling, direct marketing and events promotion. One notable observation of the telecom industry in Ghana is how the individual companies attempt to mimic each other in their marketing efforts. These companies roll out similar offers, which at some point even confuse customers and the general public.

Statement of the Problem

The telecom industry in Ghana has devised additional ways that seem to be winning customers over. Apart from the traditional means of promoting a product, most of these telecommunication companies are actively involved in programmes that are aimed at directly assisting individuals and the general public. These programmes can be described as part of their CSR projects, which are meant to attract customers. It can be observed that these telecommunication companies invest heavily in specific CSR projects. It is obvious that they are visibly pursuing CSR programmes. These companies are six (6) in number. They are: Scancom Ghana Limited (MTN); Airtel Ghana Limited; Globacom Ghana Limited; Millicom Ghana Limited (Tigo); Expresso Ghana Limited; and Vodafone Ghana Limited

This situation may be due to the fact that customers are demanding more from companies and pushing them to be responsible. There are increased CSR activities by all the telecommunication companies in the country. These CSR activities are publicised in the media. These activities leave any who is interested in marketing to wonder the specific reasons why these profit hungry entities would make these huge investments into such activities. One question that comes to mind is whether these investments relate to building their brands or are simply for philanthropic reasons. This concern can be related to the theoretical basis for CSR. It has been explained from different perspectives-one of which is the instrumental perspective. This says that CSR is a strategy which should be used to achieve economic objectives and ultimately, wealth creation (Garriga & Mele, 2004). Even though businesses should concern themselves with their shareholders such concern should be extended to include all those who have interest in the business since that can result in profits. (McWilliams & Siegel, 2001). The issue therefore is whether CSR may serve a strategic purpose for these telecommunications companies.

Again, a number of studies have explored CSR as well as brand equity (Jokanović, 2005; Tam, 2007; Tong, 2006; Yeboah, 2012; Zhu, 2009). However, few studies have actually linked corporate social responsibility and brand equity (Kaur & Agrawal, 2011; Lai, Chiu,Yang & Pai, 2010; Pakseresht, 2010; Torres, Bijmolt, Tribó & Verhoef , 2012). For those that did they all concluded that there was some relationship between CSR and brand equity. These studies were all conducted outside Ghana and used industries other than the telecommunications. This current study would determine whether the there is indeed some relationship between CSR and brand equity in the telecommunication industry in Ghana.

Finally, all the studies involving CSR and brand equity simply ended with the relationship between the two variables. The current study would go beyond simply establishing the relationship and attempt to determine the best predictor of brand equity as a composite variable and also identify the how the best predictor(s) also influence the individual dimensions of brand equity.

On the bases of the issues raised the researcher was interested in studying the phenomenon. The researcher wished to investigate the existing CSR activities initiated by four (out of the six) telecom companies. Then customers' perception about these CSR activities was also to be looked at. Most especially the study was to determine whether these CSR activities have a relationship with brand equity. In addition to these, the study was to further find out the best predictors of brand equity. As already stated, this study was related to the telecom industry in Ghana which is of a highly competitive nature. There was no study linking CSR and brand equity in the telecom industry. The focus of this study was therefore, to examine CSR and brand equity in the telecommunication industry in Ghana and give appropriate recommendations to the industry players.

Research objectives

The general objective was to examine the relationship of CSR on brand equity in the telecommunications industry in Ghana. To achieve this, the following specific objectives were formulated for the study:

1. Identify the areas of concentration by the selected telecommunication firms where they have initiated and implemented CSR activities;
2. Determine the perception of customers regarding the CSR activities that have been undertaken by these telecommunication companies;
3. Explore the overall relationship between CSR and brand equity in the telecommunication industry in Ghana;
4. Identify the best predictor(s) of brand equity among the CSR dimensions; and
5. Determine how the best predictor(s) influence the dimensions of brand equity.

Research questions

The following research questions were formulated for the study:

1. What are the areas of concentration by the selected telecommunication firms where they have initiated and implemented CSR activities?
2. What are the perceptions of customers regarding the CSR activities undertaken by the telecommunication companies under consideration?
3. What is the overall relationship between CSR and brand equity in the telecommunication industry of Ghana?
4. What is/are the best predictor(s) of brand equity among the CSR dimensions?
5. How does the best predictor(s) influence the dimensions of brand equity?

Significance of the study

The study is significant to the extent that it will add to existing literature on corporate social responsibility and brand equity. Very few studies have actually linked the two concepts in order to determine how brand equity is associated with corporate social responsibility. In fact, no study has actually examined how CSR influences brand equity. This study will add to literature by filling these gaps in literature. The study will again, assist businesses, especially those in the telecom industry, as to where they should concentrate their marketing efforts in order to strengthen their position in the market. This is very important because without this kind of information these companies may very likely direct their activities on less profitable marketing efforts. Finally, the study will give directions to other related studies that may be conducted in other settings that is, industry or location.

Delimitations of the study

Corporate social responsibility is explained from four main perspectives (or theories). These are instrumental, political, integrative and ethical. The study is, however, based on the instrumental theory which states that CSR should be undertaken for strategic reasons so that companies can benefit from it. Second, CSR activities are undertaken by so many businesses in the different industries in Ghana. Some of these industries are: automotive, consumer goods, financials, health care, media, oil and gas, technology, telecommunications, utilities etc. These industries also have businesses that are most likely interested in building brand equity so that they can also reap the benefits associated with brand equity.

The current study is, however, limited to: a) four companies in the telecom industry in the country; and b) the perception of tertiary students in Cape Coast.

Organisation of the study

The study is organised into five chapters. Chapter one introduces the research, addresses the problem of the study, the objectives as well as the significance of the study. This is followed by the chapter two which reviews related literature and provides the empirical and theoretical bases for the study it ends with a conceptual framework for the research. The chapter three explains the methodology for the study. It discusses, among other things, the study design, sampling issues, data preparation and data analysis. In the chapter four, the results of the data analyses is carefully discussed in an organised manner. Finally, the fifth chapter gives the summary, conclusion and recommendations of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter reviews the theoretical, empirical and conceptual bases for this study and the ideas and findings of scholars that is, authors and researchers as well as marketing practioners. Traditionally, businesses have always relied on the marketing mix variables to build brand equity. However, there seem to be strong indications from current literature that suggest that CSR may be a ‘better’ option for building brand equity. The related literature has been organised to determine if any such relationship exist as is being posited by current literature. This would further lead to the development of the conceptual framework for this study. The work is based on the instrumental theory of CSR which says that concern for stakeholders has long-term benefits for businesses.

Theoretical reviews

The evolution and definition of corporate social responsibility

The CSR literature gives the development of the concept as well as the understanding of it in business practice. Frederick (1992; 1998) in Moir (2001) explains that up to 1970, CSR was about corporations’ obligation to work for social betterment, this he termed CSR1. Then, from 1970, this evolved to what he called CSR2, that is, corporate social responsiveness. This, according to him, was ‘the capacity of corporations to respond to social pressures’ (p.18). This move was from a more philosophical approach to one that focused on managerial action. In 1986, there was another change to CSR3, that is, corporate social rectitude where he gave it a moral and ethical dimension. The essence, according to him, was to: 'permit a systematic critique of business impact upon human consciousness, human community and human continuity'. In his view, CSR should develop to a point where 'claims of humanising were equal to claims of economising' (p.18). Finally, he introduced CSR4. This involved using the cosmos as the basic normative reference for social issues in management and considering the role of science and religion in these issues.

Corporate social responsibility has gained much popularity since the 20th century probably due to the sophistication of customers coupled with companies' desperation to sustain themselves (Inter-American conference on corporate social responsibility, 2003; Van Marrewijk, 2003; Santillan, 2011). It is a construct that has lent itself to many definitions and names. In the literature, it is not surprising to find names like social responsibility, corporate citizen, corporate responsibility, corporate societal responsibility, corporate conscience, social performance, sustainable responsible behaviour, corporate citizenship and responsible business all pointing to the same construct (Andriof &McIntosh, 2001; Argenti & Drukenmiller, 2003; Pakseresht, 2010; Yeboah, 2012; Ying, 2005).

Corporate Social Responsibility has been defined by several authors: Lai, Chiu, Yang, and Pai (2010, P.458) define CSR as: 'voluntary activities taken by corporations to enhance economic, social, and environmental performance voluntarily.' The World Business Council for Sustainable Development (WBCSD) (1999) cited in Moir (2001, P.18) also define CSR as "the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." Morrisons (2005) cited in Scott, (2007, P.31) states that "CSR is about understanding and managing the relationship between our trading operations and the economy, environment and communities within which we operate." According to Dahlsrud (2008), even with the different definitions from various authors spanning over different decades, there is a string of commonality in all those definitions, that is, companies' contribution to the society. This idea is evident in the earliest definition of the concept by Bowen in 1953 when he defined it as: 'the obligation of businessmen to pursue those policies to make those decisions or to follow those lines of actions which are desirable in terms of objectives and values of the society' (Carroll, 1999. p 268). Dahlsrud (2008) gives empirical reasons why there is and there cannot be any such confusion with regard to the definition of corporate social responsibility. To him, all the seemingly different definitions are to 'a large extent congruent' (p. 3). The conclusion, according to him, is not so much about how CSR is defined since all the definitions describe a phenomenon. The challenge is how to understand the concept within a given context so that businesses can make room to accommodate it in their business strategies.

Interestingly though, Argenti and Drukenmiller (2003) have a differing opinion on the meanings of CSR. They propose a different taxonomy in order to clarify the whole confusion on the issue of CSR. Several other writers have raised similar concerns. The issue has never really been about the idea being persecuted. Indeed, CSR has been described by Votaw and Sethi (1973) as very brilliant since, according to Van Marrewikj (2003), it may be the answer to doing business in a 'more humane, more ethical and a more transparent manner' (p.95). Corporate social responsibility has in some circles been accused of being vague and meaning different things to different people (Gobbels, 2002; Votaw & Sethi, 1973). It is in this light that Banerjee (2008) stated that CSR was too broad in its scope to be relevant to organisations. Additionally, Henderson (2001) also attacked the various definitions as lacking direction by saying that 'there is no solid and well developed consensus which provides a basis for action' (pp20-21). This study will however adopt the definition by WBCSD. The World Business Council for Sustainable Development defines it as 'the continuing commitment by business to behave ethically and to contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and the society at large.' The researcher is interested in this definition because it captures the dimensions that would be used in this study. These dimensions are economic, environment and social.

Argument for and against corporate social responsibility

The debate on CSR has long been standing. Several arguments have been made in an attempt to explain whether catering for the society should be part of the objectives of business organisations. For most organisations, it seems that their responsibility is to maximise shareholders' wealth, that is, to increase the value of the firm's investment. To achieve this, the concentration has always been on the provision of goods and services. In addition to this, such businesses ensure that they act as good citizens of the society. This they do by making legitimate profits, paying taxes and royalties, and not harming the environment. To those who argue against CSR what more is there to the concept?

Proponents of CSR, however, insist that contemporary management practices require that business organisations be more responsive to the needs of society. This cry seem to have become louder due to reasons that may include: governments' failure to solve social problems; the call for accountability in corporate governance due to the scandals involving some major US companies (Enron and WorldCom); and finally *relating to this study, CSR's ability to make businesses more competitive and hence ensure sustainability*. Smith (2003) in his paper clearly shows that apart from the normative argument for CSR, there is indeed increasing proof that there is a business case for it.

In determining the responsibility of the corporations, Friedman (1970) claimed that corporations were responsible only to their shareholders. Hence, his assertion was termed shareholders perspective. In order for corporations to fulfill this, he preached that businesses should increase profits so that they can satisfy their owners who have actually invested in it (Friedman, 1970). A manager is an employee of the owners and the manager's job is to conduct the business in accordance to the owner's desire. When a manager uses the firm's resources on social activities, Friedman says that the manager uses someone else's money for a general social interest. Therefore, customers, employees and shareholders will spend their own time and money on social issues if they wish. Friedman supports the thought of Adam Smith that the firm will contribute to the society by pursuing its (own) self-interest. He explained that it is not a manager's role to be a socialist, and that making companies become socially responsible is like imposing extra tax (Santillan, 2011 p.13).

Freeman (1984), on the other hand, argued that businesses' responsibility should be extended to what he termed stakeholders. To him, social responsibility should mean that corporations have a social responsibility to protect the interest of shareholders and stakeholders as well as of protecting human rights and the environment. Firms should go beyond the emphasis on satisfying owners and shareholders, and extend their activities to include other stakeholders such as the community, the public or employees (Freeman, 1984). He thus proposed what is known as the stakeholder theory. According to Freeman, Wicks and Parmar (2004), cited in Santillan, (2011), "Stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together. It also pushes managers to be clear about how they want to do business, specifically what kinds of relationships they want and need to create with their stakeholders to deliver on their purpose" (p.14). In order to further deepen the debate so that a much stronger case can be made for CSR, Smith (1990 p.69-76) also added his voice to it. Smith carefully rebutted all the points that were made to weaken the case for CSR. These are as follows: competing claims –the role of profit; competitive disadvantage; competences; fairness –domination by businesses; and legitimacy –the role of government.

Competing claims –the role of profit

Businesses function as economic, not social, organisations and so they should be judged by economic criteria alone. Any action that is directed at any other thing apart from profit making impairs economic efficiency and represents extra taxation on businesses. The fundamental role of businesses is to make profit and maximise social welfare through efficiency entailed in profit maximisation. Businesses should concentrate on efficiency since that is its obligation to society.

The argument for CSR is that the profits of an individual firm may not necessarily represent the efficiency from the society's point of view. In this case, it would not represent efficiency to the society. Second, there are other indications of well-being besides profitability. Because there is always uncertainty about what will be profitable corporate goals, businesses, in practice, place profitability second, and rather seek an assurance of required minimum profit. Then again, goals targeted at the society may in the long-run result in profitability to the firm. Indeed, in reacting to the profit argument, Smith concludes by saying that efficient allocation of resources would require the business to locate and regulate the social consequences of its own conduct.

Competitive disadvantage

The argument here suggests that because social action comes at a price, it results in competitive disadvantage. The only way around this is to push the burden on the government or to have it legislated so that all other corporations would be subjected to the same requirements. Proponents for CSR reject this on account of the ease today in lobbying legislative agencies to make such appropriate legislation in order to avoid the competitive disadvantage. Again, this argument is difficult to accept when one firm causes a social injury but not its competitors who are in the same industry. Since it will be in the society's best interest such social injury should be prevented and as argued by Smith spending extra cost to address a potential social injury may actually be beneficial to the firm in the long-run.

Competence

Friedman (1970) insinuates that business' responsibility is in maximising profit for shareholder. He insists that businesses do not have the technical skills to deal with social issues and so any attempt by businesses to undertake this venture would result in wasting shareholder's money. He further states that businesses do not have the capacity to know the needs of the society. In his rebuttal, Smith accepts that corporations cannot cure all social ills and should not even attempt. He however adds that any one institution cannot solve the problem of social injury; all should come on board to solve it-including the corporations.

Fairness –domination by businesses.

This fourth argument against CSR states that it can result in businesses becoming too powerful, in other words 'playing God'. According to Smith (1960), undertaking CSR activities give managers too much power which may result in, at least, three things: political action –lobbying; creating of private government (within the organisation) domination by business values; and smothering effect-domination by business values. In answer to this, Smith clearly explains that such power can be controlled instead of thinking that it would present a problem only in the social policy context. The question posed in this counter argument is that even if CSR involves manipulation should one fault a genuine effort to help? The answer to this is corporate self-regulation.

Legitimacy –the role of government

Social issues are the preserve of the government, since it is given the resources (taxes) to correct social injury. It is thus expected that the government invests in the appropriate activities that would be necessary to cure these injuries. Smith, however, argues that when businesses act, the government will also act. This means that the motivation should come from businesses. Besides, such co-operation is pluralistic and is most likely to be welcomed by the majority of people. The issues raised by Friedman cannot simply be ignored as they carry a lot of weight. However, after years of debating, the argument seemed to have changed its course from whether to how (Smith, 2003).

Theories of corporate social responsibility

Corporate social responsibility, like any other concept, which is worth studying, must be founded on some theories. A number of authors in the field have suggested some theories for the concept (Brummer, 1991; Moir, 2001; Sacconi, 2006). However, these works largely, are limited in scope. They are unable to clearly and fully situate some of the proposed theories in CSR. These theories are unable to establish the relationship between the business and society. Some of these theories are social contract theory and the legitimacy theory. The study would therefore make reference to the approach adopted by Garriga and Melé (2004). Their work included virtually all the proposed theories of CSR. They further classified them into four main groups. This classification was based on Parsons (1961) observation of the social structure which according to him includes: adaptation to the environment (related to resource and economics); goal attainment (related to politics); social integration; and pattern of latency (related to culture and value). On the basis of these, Garriga and Melé (2004) broadly categorised their work as follows: political theories; integrative theories; ethical theories; and instrumental theories.

Political theories

These theories focus on the connections between business and society and on the power and position of business and its inherent responsibility. They focus on the political framework for analysing CSR and explain the linkages between business and society with regard to power and responsibility. These theories claim that there exist implicit social contract that reflects the interdependence of business and society. This implicit social contract creates room for businesses to create wealth for itself and for society as well. This theory supports CSR and encourages businesses to undertake CSR activities since they have both the resources and the power needed to embark on CSR activities. The three major theories that make up the political theory are: corporate constitutionalism; integrative social contract theory; and corporate citizen.

Integrative theories

These set of theories consider how business integrates social demands, arguing that business depends on society for its existence, continuity and growth. Social demands generally are regarded as the way in which society interact social demands with business and gives it a certain legitimacy and prestige. As a result, corporate management should take into consideration social demands and integrate them in such a way that the business operates in accordance with social values. Therefore, according to Preston and Post (1975), the content of business responsibility is limited to the space and time of each situation depending on the values of society at that moment and comes through the company's functional role. In other words, there is no specific action that management is responsible for performing throughout time and in each industry. Business' response should be situation specific. Essentially, these set of theories are concentrated on detecting and scanning of, and responding to the social demands that achieve social legitimacy, greater social acceptance and prestige. This theory posits that it is in the business' best interest to undertake CSR activities, since that may assure the business of the society's trust and acceptance. According to Garriga and Mele (2004), the theories that make up the integrative theory are: issues management; principle of public responsibility; and corporate social performance.

Ethical theories

Ethics connote a sense of right and wrong and not necessarily requirements. When corporations deem it right to cater for society in some respects, it can be said that they are doing so purely out of ethics. Businesses should focus on how moral standards apply to organizations and behaviour (Velasques, 1992). They offer different moral theories each prescribing a set of moral rules that individuals can apply in the process of deciding whether an action is morally right or wrong in various situations (Alder, Noel, Schminke & Kuenzi, 2008). Studies on the role of ethical theories in business usually focus on the application of ethical guidelines to human resource practices (Shultz & Brender-Ilan, 2004), assessment of managers' ethical evaluations (Reidenbach & Robin, 1990) and for the purpose of this research CSR (Frederiksen, 2010). Essentially, the ethical bases for CSR suggest that businesses should beyond undertaking their legal obligation ensure that they improve the quality of life in their society. The major theories that form the basis for CSR are: normative stakeholder theory; universal rights; sustainable development; and the common good approach.

Instrumental theories

Adam Smith's The Wealth of Nations is probably the basis for the instrumental theories of CSR. Smith argued that the sole aim of business is to pursue profit and efficiency. Friedman, a faithful disciple of this school of thought firmly preached it and insisted that the role of business is economic. Though this has been severely criticised, others have, as it is to be expected, greatly accepted it (Bowen, 1953; Figar, & Figar, 2011). Carroll (1979) and

McWilliams and Siegel (2001) assert that an adequate level of investment in philanthropy and social activities is acceptable for the sake of profits. Similarly, Hamil (1999) alleges that corporate giving is nearly always instrumental.

The instrumental theories view the business' sole responsibility as economic. It, therefore, undertakes CSR activities with a strategic view, that is, the aim of reaping future economic returns. This concept again is reasonable because of the ability of stakeholders to impact on the activities of the organization. Clarkson (1995) identifies three groups of businesses based on the effect of stakeholders. These are: corporations incapable of continuing to do business or are seeking protection from bankruptcy because of inability to create wealth for stakeholders; corporation with profit below the industry average because of inability to create wealth for stakeholders; and corporation with profit above the industry average because of creating wealth for stakeholders.

Again, as have been identified by Mitchell, Agle and Wood (1997), stakeholders have power, legitimacy and urgency; because of these, it is in the organisation's best interest (financially) to satisfy them, especially those who possess all three attributes. In addition to these, there is empirical evidence that suggest that CSR influences positively on financial performance of corporations (Kaur & Agrawal, 2011; Pakserasht, 2010; Torres, Bijmolt, Tribo & Verhoef, 2012; Ying, 2005). According to Garriga and Melé (2004), these instrumental theories are: maximising the shareholder value; strategies for achieving competitive advantages; and cause-related marketing.

Maximising the shareholder value. This theory focuses on CSR activities that contribute to maximising shareholders' value. It encourages investments that are most likely to increase shareholders' value as that is the corporations' sole aim (Friedman, 1970). Though such investments may not result in short-term returns, they are still acceptable since the returns will eventually be made in the future. This specifies long-term maximisation or value-seeking as the firm's objective (Garriga & Melé, 2004).

Strategies for achieving competitive advantages. Husted and Allen (2000, as cited in Garriga and Melé, 2004) explain that CSR should result in competitive advantages. In doing this businesses should focus on how to allocate resources in order to achieve long-term social objectives so that these will eventually create competitive advantages. The theory of strategies for achieving competitive advantages explains that a CSR conscious organisation can achieve such advantages by doing three things. These are: social investments in competitive contract; natural resource based-view of the firm and dynamic capabilities; and strategies from the bottom of the economic pyramid.

Social investments in competitive contract. Contrary to Friedman's argument that organisations do not have the resources and knowledge needed to deal with society's problems. This theory, which is based on Porter's model on competitive advantage, asserts that a firm is able to create better competitive advantage when it invests in philanthropic activities. According to Porter and Kramer (2002), philanthropic investments by members of a cluster, either individually or collectively, can have a powerful effect on the clusters' competitiveness and the performance of all its constituents.

Natural resource based-view of the firm and dynamic capabilities. The resource based view maintains that a company's valuable resource, strengths and competitive capabilities should be used to deliver value to customer in ways that rivals find it difficult to imitate (Thompson, Strickland & Gamble 2011). Building on this, Garriga and Melé (2004), assert that when there is a unique interplay of these rare (valuable) resources (organisational and physical resource) with humans, the firm gains unmatched competitive advantage. Since resources are not limited to organisational and physical assets but can also be expanded to include social and ethical issues (Petrick & Quinn, 2001) it can be concluded that all these other resources can be sources of competitive advantage for the organisation. This would result in the creation of appropriate perception, deliberation and responsiveness or capacity of adoption and the development of proper relationship with the primary stakeholder (Harrison & St. John, 1996; Hillman & Keim, 2001; Litz, 1996).

Strategies from the bottom of the economic pyramid. This theory encourages that instead of corporations focusing on the top and middle-income earners in the economy, they should concentrate on developing products and services for the customers who are in the low-income bracket. Businesses should change their perceptions about these ones and begin to see them as a group that creates opportunity- one that can make them innovative. This would benefit corporations since in reality, majority of the world's population fall within the bracket. One specific strategy which can be adopted by corporations in this regard is disruptive innovation (Christensen, Craig & Hart 2001). These are "products or services that do not have the same capabilities and conditions as those being used by customers in the mainstream market; as a result, they can be introduced only for new or less demanding applications among non-traditional customers with a low cost production and adapted to the necessities of the population" (Garriga & Melé, 2004. p.55). As has been suggested by some scholars (e.g., Hart & Christensen, 2002; Prahalad & Hammond, 2002), disruptive innovation can improve the social and economic conditions at the base of the pyramid and at the same time create a competitive advantage for the firm.

Cause-related marketing. This is the process of formulating and implementing marketing activities that are characterised by an offer from the firm to contribute a specific amount to a designated cause when customers engage in revenue-providing exchanges that satisfy organisational and individual objectives (Varadarajan & Menon, 1988). The organisation using this strategy has a dual motive; (a) to enhance its revenues, and (b) to improve its customer relationship. The organisation seeks to differentiate its offering (product) by creating socially responsible attributes that reflect positively on it. As described by Smith and Higgins (2000), it creates a 'win-win' situation for the parties; the organisation secures competitive advantage whiles the cause (or the project aim at enhancing the society's welfare) also receives financial benefits.

The instrumental theory, as discussed above, is the basis for the current study. The researcher wants to find out if undertaking CSR activities could result in achieving some competitive advantage in this case brand equity. As has been suggested by the theory, CSR activities should result in long-term advantages for the business. If, in the case of this study, it is realised that CSR activities undertaken by telecom companies in Ghana result in attaining brand equity, then the theory under the prevailing conditions can be accepted.

Apart from the theoretical basis for the study, some empirical studies have been conducted on the influence of CSR on brand equity (Kaur & Agrawal, 2011; Lai, Chiu, Yang & Pai, 2010; Niazi, Haider, Islam & Rehman, 2012; Pakseresht, 2010; Torres, Bijmolt, Tribó & Verhoef, 2012). Among other things, the study sought to establish the relationship (if any) between CSR and brand equity. These studies all came to the conclusion that there is some positive relationship between CSR and brand equity, thereby giving credence to the theory.

Dimensions of corporate social responsibility

Current literature reveals diverse ways of measuring CSR (Ailawadi, Luan, Neslin &Taylor 2011; Carroll, 1999; Jin, 2013; Jucan & Jucan, 2010; Uddin, Hassan &Tarique, 2008). Carroll (1991) is most cited when measuring CSR. According to him, CSR is best measured using economic, legal, ethical and philanthropic dimensions. Apart from these measures, others have also developed their own dimensions based on the needs of their studies. For example, Ailawadi et al. (2011), measure CSR using employees, community, environment and product. Then again, to better satisfy the requirement of their study, Giannarakis, Litinas and Theotokas (2011) expanded the existing dimensions to include suppliers, corporate governance, environment, human resources, customers and society. Since all these measures cannot apply to the current study, the researcher has, based on the current approach in the literature, selected three broad dimensions which will best suit the study. These measures are environmental (physical environment, health and diseases, natural resources and digital divide), economic (ethical, taxation and distribution of income) and social (customers, employees, community and digital divide).

Environmental dimensions. These are measures that are used to assess corporations' actions that affect the environment either negatively or positively. They relate to businesses ensuring that their activities of accumulating human and physical capital for achieving their objectives does not negatively affect the environment. It is expected that such actions more than compensate for the direct or indirect loss or degradation of the environment (Brundtland Report – UN; Jin 2013). Environmental concerns have been up for discussion on several platforms. This may probably be because environmental issues directly affect the very existence of humans and all that they care about. Businesses irrespective of their profit motive are expected to care about the environment. To be able to do it effectively, Uddin et al. (2008) invite businesses to look at two issues: undertaking environmental impact and examining the 'win-win of environmental responsibility'.

In undertaking environmental impact, businesses are expected to measure how their activities affect the environment. This would generally be done by doing a cost-benefit analysis in exploiting natural resources. Determining how much the society is losing as a result of their activities as opposed to the benefits the society is reaping from the resource. The next thing to consider in the environmental impact is environmental management which requires that business make changes in their operations when it is found to be deficient. The essence of this is to enhance efficiency in their operations and at the same time result in their being more environmentally responsible in their use of resources.

The second issue is the 'win-win' of environmental responsibility. According to Uddin et al. (2008), businesses that are committed to environmental management reap benefits. Apart from the benefit on the environment, their article revealed that a 'responsible public image may also attract more customers' (p.207). They further explained that this could help businesses to identify market opportunities. Similar findings were made by Ailawadi et al. (2011), concerning customers' responses to environmental dimension of CSR. They reported that CSR activities almost always improve customers' loyalty. Further findings revealed that though CSR initiatives generally improved customers' attitudinal loyalty, it did not necessarily exert a positive influence on behavioral loyalty and price premiums –which are both dimensions of brand equity. The current study on the basis of such findings, proposes that:

H_1: Environmental dimensions have positive associations with brand equity

To measure the environmental dimensions needed for the study, the researcher adapted the indicators used in Giannarakis et al. (2011). These indicators are: natural resources; health and diseases; and physical resources. The measures for natural resources would include: telecommunication activities that negatively affect the environment; programmes aimed at improving the natural environment; programmes aimed at protecting the environment; and programmes that publicly show that these selected telecommunication companies really care for the environment. In assessing health and disease, the study will use the following measures: issues concerning harmful electromagnetic-magnetic waves; campaign against certain diseases in the society; sponsorship of health programs; and adoption of health care centres in the society. Concerning physical environment, the measures to be used include: activities that result in filth; congestion created by sales outlets; and effect of operators' presence in towns and cities.

Social dimensions. The fundamental reason behind social dimension is that businesses should accept and bear some responsibility for the impact they have on society and balance the external social consequences such as profit (Jin, 2013). This social responsibility is at both the individual and the group level. At the individual level, it would include providing jobs and giving these employees the opportunity to develop and contribute their talents. At the group level, businesses should recognise that they operate within societies and so they must promote the social wellbeing of these societies. Uddin et al. (2008), have a similar view of the social dimensions of CSR. They see it as three-fold: responsibility towards customer; responsibility towards employees; and responsibility towards the community. Businesses as part of their social responsibility are expected to provide good value for money. This, in relation to the current study, would include: prompt and courteous attention to queries and complaints; adequate supply of service; and full and unambiguous information to customers and potential customers. Second, a responsible business would need to take care of it employees' welfare and safety at work as well as upholding their skills and motivations for the work. They would want to be seen as an equal opportunity employer for all its employees regardless of their gender, age, race or religion. Finally, it would be interested in issues involving the community. Like the environmental dimensions the benefit here is that the business would be rewarded with a good reputation in the eyes of the community which, according to Jucan and Jucan (2010), can be converted into market opportunities and long-term profits.

In determining the effect of social responsibility on customers, Ailawdi et al. (2011), found out that different social measures gave different results. The researcher found out that the measures: fairness to employees and local sourcing resulted in a positive impact on both attitudinal loyalty and behavioral loyalty. On the other hand, community support simply resulted in attitudinal loyalty. Since there is both theoretical and empirical indication that social dimensions positively affect businesses, the third hypothesis is:

H_2: Social dimensions have positive associations with brand equity

The current study developed the social dimensions using the following measures: community; employees; digital divide; and customers. As regards the community, measures such as: responsible marketing; responsible technology; advice on security issues; and companies research activities will be assessed. The second indicator to be used in the social dimension category was employees. This will be measured by determining the perception of customers about the employee-employer relationship in the telecommunication industry of Ghana. The specific measures included: customers' enthusiasm about working with these companies; customers' perception about how employees were treated; their interest in employing the marginalised; and whether were an equal opportunity employer. The third indicator for the social dimension was digital divide. This will be measured based on: flexible pricing policies; means of communication to all customers; quality of service to all customers; and dealings with customers having special needs.

Economic dimensions. This is simply inevitable when it comes to CSR decisions. Like any investment, such financial commitments do not result in short term benefits. Whilst the paybacks (if any) of such commitments to the companies are well into the future, the immediate benefits to the society ends up being enjoyed by all-even competitors. This reality makes this kind of investment very unattractive. Besides, there are other studies that have actually questioned the benefits of undertaking such investments (Aupperle, Carroll & Hatfield, 1985; Vance, 1975) However, as have been cited, there is ample empirical proof that there are direct business benefits for adopting CSR practices. In addition to that, there are also testimonials in published works concerning the benefits CSR. Henderson (2001, p.32-33) cites different sources in this regard. He states that: "CSR is increasingly being viewed, not only as making good business sense but also [as] contributing to the long-term prosperity of companies and ultimately its survival" (WBCSD2000, p 3); "CSR is essential to the long term prosperity of companies as it provides the opportunity to demonstrate the human face of business …" (WBCSD2000, p 6); "… sustainable development builds the platform on which business thrives and society prospers. Indeed, within the Royal Dutch/Shell group we have an absolute conviction that sustainable development is the fundamental driver for our own long-term business success" (Sir Mark Moody-Stuart of Shell, in his foreword in a *Financial Times* Guide to 'Responsible Investment', 1999); "When companies hitch their wagon to the star of sustainability, everyone is a winner" (William Stavropoulos of Dow Chemical, in the speech already quoted); and "… corporate social responsibility is rooted in hard-headed business logic" (Greg Bourne, Regional Director, BP Amoco Australia and New Zealand, in a speech of February 1999). The fourth hypothesis for the study is:

H_3: Economic dimensions have positive associations with brand equity

In addressing economic dimensions for this study, the following indicators were used: ethical; taxation; and distribution of income. The ethical dimension will be measured based on the following factors: involvement in scandalous activities; disclosure of term and conditions to customers; and imposing services and products on customers. Again, taxation will be measured by: tax compliance; accusations of tax evasion; and attitude towards tax avoidance. Finally, distribution of income would be measured using the effect of their promotional tools on their customers.

Role of corporate social responsibility in business

Several authors have commented on the role of CSR activities in business. They all seem to be in agreement as to how important CSR is to organisations. In 2001, Vassileva concluded from his study that CSR activities are highly appreciated by customers and so companies who are into CSR have a bright future. Though the study was not explicit on the specific advantages it still gave insight into some positive position a CSR oriented company could attain. Then in 2003, Bhattacharya also stated that though, the specific role of CSR in an organisation is quite complex, many studies seem to suggest that there is a positive relationship between CSR actions and consumers' reaction towards company and its products. Apart from these implicit assertions on the role of CSR in business, other authors have made explicit comments based on empirical and theoretical bases. Lichtenstein, Drumwright and Braig (2004) have stated that there is very strong evidence, which suggest that implementing CSR activities could result in customers having a positive attitude toward the company. They further explained that such a positive attitude could even make customers support companies in corporate- supported nonprofit activities.

Then again, others (Jones, 2005; Waheed, 2009) have specifically said that this would lead to companies gaining competitive advantage over social issues, improved financial performance, reduced operating cost, long term-sustainability, increased staff commitment and involvement, enhanced capacity to innovate, enhanced brand value and reputations and also development of closer links and greater awareness of their needs.

The concept of brand equity

Business organisations exist to serve a target by offering value. They do this through their products-goods and services. A product is anything that can be offered to a market for attention, acquisition, use or consumption that might satisfy a want or a need (Kotler & Armstrong, 2010). It is the benefit that consumers purchase, the value derived from the exchange process between the buyer and the seller.

Well-managed products result in very strong brands, which have the potential to survive all forms of competition. Brands are the major enduring assets of a company. A former CEO of McDonalds declared, 'if every asset we own, every building, and every piece of equipment were destroyed in a terrible natural disaster, we would be able to borrow all the money to replace it very quickly because of the value of our brand…the brand is more valuable than the totality of all these assets' (Kotler & Armstrong, 2010 p. 259). According to the American Marketing Association (2011) 'a brand is a name, term, sign, symbol or design or a combination of them intended to identify the goods or the services of one seller or a group of sellers and to differentiate them from those of competitors'. It is the organisation's promise to its customer; assuring the customer of the benefits to be derived from it. Different businesses can have very similar products perhaps the same products with the same design and functionality but they cannot have the same brand; they would have to identify them differently either to mean the same or different things.

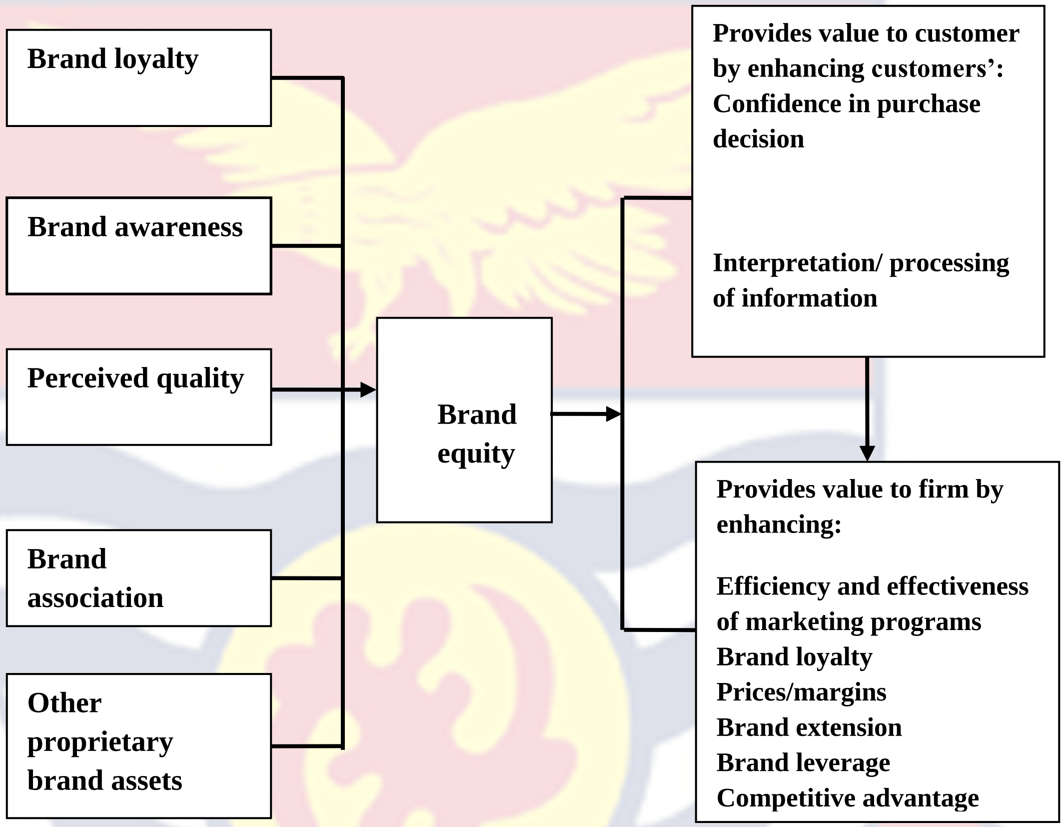
Apart from defining it to reflect what a producer is willing to offer to a consumer, Ambler (1992) has taken a more consumer-centric position on the concept. He says that it is the promise of the bundles of attributes that someone buys and provides satisfaction. The attributes that make up a brand may be real or illusory, rational or emotional, tangible or invisible. This definition emphasizes the benefits that consumers are likely to derive from a brand, simply put why a customer should purchase an item and not the other.

Groucutt, Leadley and Forsyth (2004) differentiate between products and brands by saying that 'products are tangible things that exist in the physical world. If everyone in the world died tomorrow, products would still be there. But, brands exist in consumer perception, in people's head. If everyone in the world died, tomorrow brands would die too' (p.275). This assertion brings to fore another important role a brand plays. It shows that apart from ensuring quality, building trust, differentiating products and showing source of ownership it also has intangible qualities that can be manipulated by smart marketers to achieve a competitive edge. Whiles products are physical in nature, brands are emotional. In fact, they have been described as symbolic, emotional and intangible (Kotler & Keller 2009). Because brands involve the very emotions of customers, marketers desire to build very strong brands that can 'win the hearts of consumers'. Indeed, strong brands clearly communicate business strategies with customers and vice versa (Erdem & Swait, 1998).

Aaker (1991) defines brand equity as 'a set of assets (or liabilities) linked to a brand's name and symbol that adds to (or subtracts from) the value of the brand by a product or a service to a firm and / or firm's customers. This definition highlights the point, that brand equity can either be negative or positive (Kotler & Keller, 2009). Though not explicit, this same impression is given by Kotler and Armstrong (2009) when they defined it as 'the differential effect that knowing the brand name has on customer responses to the product and its marketing. Negative brand equity can emanate from how the brand was initially positioned on the market, customers perceptions of quality, re-call by brand owner due to defects and political pressure against the brand. The study would, however, adopt the approach that has been used by a vast majority of researchers on the concept and stick to the positive experiences that customers are likely to have with brands.

Like its companion brand, brand equity is a perceptual concept that has to do with the cognitive social responses to a product. Keller (1993) explained it from the angle that 'the power of the brand lies in the minds of consumers and what they have experienced and learned about the brand over time…it can be thought of as the added value endowed to a product in the thoughts, words, and actions of the consumer'. This shows that marketers have an arduous task-tuning customers' emotions toward their brands. Would the issue of brand equity be a challenge if the concept were insignificant in marketing? Works on the subject indicate that, it is a requirement for business success because, brand equity increases the probability of brand choice, leads to brand loyalty and 'insulates the brand from a measure of competitive threats. According to some studies (Aaker 1991; Dacin & Smith 1994; Pitta & Katsanis 1995), there is ample evidence that strong brands will usually provide higher profit margins and better access to distribution channels, as well as provide a broad platform for product line extensions.

In explaining brand equity, Aaker (1991; 1996) developed a model, which has been used and accepted by many other authors (Keller, 1993; Motameni & Shahrokhi, 1998; Tong, 2006; Yoo & Donthu, 2001) in discussing the concept. The brand equity model is made up of five components (dimensions); these include brand loyalty, brand awareness, perceived quality, brand association and other proprietary brand assets. A critical look at the components indicates that the model points to both perceptual and behavioral patterns. The perceptual components are brand awareness, brand association and perceived quality; the behavioral component however, is the brand loyalty-even at a premium price. This model is depicted in Figure 1.



Source: Adopted from Aaker (1991)

In attempts to either adopt or adapt Aaker's generic model, several authors have explained these components most of which point to the original ideas that formed the bases for the components. This part of the review of related literature is devoted to four (out of the five) dimensions and the relationship amongst them.

Brand association. Brand association is anything linked in memory to a brand. It represents all associations related to a brand, which can include the personification of a product's characteristics, origin and usage (Gordon, Calantone & di Benedetto, 1993). It may also involve attributes, benefits and attitudes that can be stored in consumers' minds (Keller, 1993; Pitta & Katsanis, 1995). Based on the above definition, it can be explained to mean the extent to which a particular brand calls to mind the attribute of a general product category and so represents the connection consumers have with a particular brand. For example, asking for pampers when one needs disposable diapers. Such connections would include imagery, organisational association, brand personality and symbols. Bian and Liu (2011) explain that these different brand associations (connections) engender different impressions to customers and of course positive impressions would lead to value for the customer. Such positive impressions may include those identified in Karadeniz's adapted brand equity model, which are: help process to retrieve information; reason to buy; create positive attitude or feeling; and finally extensions (Karadeniz, 2010). There is, however, a more specific assertion that the sole importance of brand association is to capture a share of the customers' mind in order to influence purchase and build loyalty (business dictionary.com). Brand association creates emotional bonds that tie the product or brand to the target and make the brand an integral part of the target's self-image and as has been explained can only be sustained through brand loyalty (Iqbal, 2012).

In commenting on brand association, Keller (1993) explained that it can vary in strength, favourability and uniqueness; and clearly showed that it is a constituent of brand equity. Like Aaker (1991), Keller (1993) and Tong (2006) insist that brand association directly leads to brand equity and so the concept of brand equity cannot be studied without considering brand association.

Brand awareness. Brand awareness is an aspect of brand knowledge and has to do with the ability of a potential buyer to recognise or recall a brand as a member of a certain product category (Aaker, 1991; Keller, 1998). It is related to the strength of the brand in memory as reflected by consumers' ability to recall or recognise the brand under different conditions. In addition to these two levels of brand association proposed by Keller, others have expanded it to include the top of mind awareness, knowledge dominance, recall performance of brands, brand opinion and brand attitude (Kim, Lim, & Bhargava, 1998). Keller (2003) again proposes a measurement for it using two main constructs. These are breadth and depth of the brand. The depth of brand awareness relates to the likelihood that the brand can be recognised or recalled whiles the breadth of brand awareness relates to the variety of purchase and consumption situations in which the brand comes to mind. In adding to the brand awareness literature, Karadeniz (2010) also explained in his model that it should be understood as the anchor to which other associations can be attached. These associations include: familiarity liking; signal of substance/commitment; and then finally, the brand to be considered.

Both empirically and conceptually, brand awareness has been identified as a powerful predictor which has the ability to alter consumer choice, behaviour and is a necessary ingredient for brand evaluation (Haley & Case, 1979; Holden & Lutz, 1992; Howard & Sheth, 1969; Nedungadi & Hutchison, 1985). For a brand to be successful, it must dominate others, especially in the minds of consumers. Iqbal (2012) states that this would result in brand awareness. Brand awareness is built through advertisement and so the marketing department should be aware that small investments in advertisement might build strong brand equity through brand awareness.

Perceived quality. The consumer's awareness and associations lead to perceived quality, inferred attributes and, eventually, brand loyalty (Keller, 1993). Perceived quality is the customers' overall impression about the brand, which includes function, creditability, service quality, effectiveness evaluation and appearance (Aaker, 1991; Zeithaml, 1988). Because it is founded on, customers' perceptions it may not necessarily represent actual quality. Rather, this 'quality' may be based on customers' experiences, knowledge and influence from family and friends.

A product perceived to be of a higher quality contributes to customers' satisfaction and adds value to consumers' purchase evaluation (Low & Lamb, 2000). When there is increased perceived value, there is the willingness to buy. It can be observed that most people are willing to pay a higher price for a specific brand because they believe that products sold under that particular brand name are well known and of a very high quality (Hilgenkamp & Shanteau, 2012; Lu, 2010). Empirically, there is proof that organisations benefit both in the short-run and long-run from perceived quality. Such benefits include market expansion and market share gained in the long-run and increased profits (due to willingness to pay premium prices) in the immediate term (Bartikwoski, Kamei &Chandon, 2010). Aaker (2005) gives three examples of empirical evidence that highlight the key role of perceived quality in driving financial performance:

First, a study using the PIMS data-base (annual data measuring more than one hundred variables for over 3,000 business units) has shown that perceived quality is the single most important contributor to a company's return on investment (ROI), having more impact than market share, research and development, or marketing expenditures. Perceived quality contributes to profitability in part by enhancing prices and market share. The relationship holds for Kmart as well as Tiffany: Improve perceived quality, and ROI will improve.

Second, a five-year study of 77 firms in Sweden, conducted by Claes Fornell and his colleagues at the National Quality Research Center at the University of Michigan, revealed that perceived quality was a major driver of customer satisfaction, which in turn had a major impact on ROI.

Third, a study of 33 publicly traded firms over a four-year period showed that perceived quality (as measured by the EquiTrend method) had an impact on stock return, the ultimate financial measure. The study looked at American Express, AT&T, Avon, Citicorp, Coke, Kodak, Ford, Goodyear, IBM, Kellogg's, and 23 other firms for which the corporate brand drove a substantial amount of sales and profits. Remarkably, the impact of perceived quality was nearly as great as that of ROI (an acknowledged influence on stock return), even when the researchers controlled for advertising expenditures and awareness levels.

Because quality is a very crucial factor that influences purchase intention and behavior and eventually brand equity, organisations should adopt strategies that would be geared toward increasing perceived quality, as this would positively affect brand equity.

Brand loyalty. Brand loyalty is the preference of a customer to buy a single brand or to buy a particular brand name in a product class regularly (Chaudhuri, 1999). Brand loyalty generates customers' attachment to a brand in making purchase decisions (Boo, Busser, & Baloglu, 2009). It reflects the likelihood or otherwise of customers switching to another brand in the event of an unpleasant experience with a trusted brand. Reichheld (1996) shows that firms with loyal customer record higher rates of returns on (their) investments. As explained by Delgado-Ballester and Munera-Aleman (2005), brand trust is the major driving force of brand loyalty because it creates exchanges that result in offering value. In this regard, the concept of brand loyalty should not simply be explained from a behavioral perspective, that is, repeat purchase. It should focus on the internal disposition or attitude that customers have toward the brand. Merely observing the behavour will not give a true explanation of the brand- consumer relationship (Baldinger & Rubinson, 1996; Keller, 1998). Based on this, brand loyalty is explained in this study from the two perspectives –behavoral and attitudinal. Aaker (1991) was the first to link brand loyalty to brand equity. Since then several other studies have been conducted in the area of brand equity and its dimensions; they all continue to mention brand loyalty as an important dimension of brand equity.

Empirical reviews

Relationship amongst the brand equity dimensions

The brand equity dimensions are interrelated. This is supported by Tong (2006). The data collected for their work showed a directional relationship among the brand equity dimensions. All the hypotheses formulated, when tested, showed significant prove of that assertion. They formulated six hypotheses to determine whether significant relationships existed among brand equity dimensions in the Chinese clothing market. The results indicated that the proposed relationships among brand equity dimensions, which were based mainly on the findings from studies conducted in Western cultures, were supported in the Chinese market. In testing the first and second hypotheses, it was evident that the perceived high quality of products was likely to help build a favorable brand image (ß31 = 0.28, t-value = 7.69) and strong brand loyalty (ß41 = 0.18, t-value = 4.40). That is, Chinese consumers' perception of brands was based on the real value and quality provided by the products, rather than on the brand name alone. Hence, the first and second hypotheses were supported. Also, the third, fourth and fifth hypotheses confirmed that brand awareness is the foundation of building brand equity, and that the other three brand equity dimensions (perceived quality, brand association, and brand loyalty) are significantly influenced by it. In this study, the three hypotheses were empirically supported in the Chinese market: brand awareness was positively related to perceived quality (ß12 = 0.21, t-value = 5.78), brand association (ß32 = 0.30, t-value = 9.16), and brand loyalty (ß42 = 0.13, t-value = 3.35). In other words, Chinese consumers tend to associate imported clothing brand names with a positive brand image, such as high quality and high fashion, and tend to show strong loyalty to big name brands. Thus, hypotheses three, four and five were supported. Hypothesis six proposed that favorable brand association can lead to strong loyalty toward the brand. The results revealed that brand association was positively related to brand loyalty (ß43 = 0.23, t-value = 5.20). Thus, for imported clothing brands, Chinese consumers' positive perception of brand image plays an important role in building strong relationships with them. Therefore, their sixth hypothesis was supported.

Corporate social responsibility and brand equity

This part of the literature review would report on what others have said about the relationship (if any) between CSR and brand equity. There seems to be a consensus on the relationship between the two concepts. There are ample theoretical and empirical evidences to draw the conclusion that the two are positively related.

Pakseresht (2010) looked at brand equity and corporate social responsibility. The critical question according to their study was 'to understand how corporate conduct may affect brand equity'. The study used a literature review approach to determine how corporate conduct affects brand equity. Though the main purpose of the study was to review brand valuation methods that embrace corporate social responsibility, certain aspects of the study are very relevant to this particular study.

According to his work, Pakseresht avoided using solely the financial and consumer based approaches to value brands. This is because of certain inherent inefficiencies in such methods. The researcher expanded both the financial and consumer based approaches to valuing brand by including environmental and social attributes to them. These adjustments to the already existing methods of valuation did not quiet yield a positive result since it actually made to difficult to really measure brand value. The point of interest of this study is, however, the relationship between the concepts as outlined by the study. The following conclusions were arrived at: corporate responsibility is a way to create long term value; corporate conduct is regarded in the sustainability context with its triple bottom line emphasising on environmental and social concerns of business while making profit; corporate responsibility has effects on corporate reputation and enforces brand trust; and corporate responsibility emphasizes the inclusive view on brand equity where all internal and external stakeholders are considered.

The next work on brand equity and CSR to be considered is by Almohammed (2010). This study was based on the assumption that consumers are demanding more out of organizations than high quality goods or services with low prices. Business firms seek for other criteria to enhance their customer loyalty. The study concluded that adopting CSR will lead to more identification for the firm by enhancing its identity attractiveness. Moreover, the study shows that CSR initiatives influence brand equity.

A quantitative research approach was used for that study to investigate the relationship between CSR and consumer loyalty (an aspect of brand equity). A purposive sampling technique was used to select some 350 Nestlé consumers in Pantang (a city in Malaysia). The data collected supported the hypothesis, which proved that CSR plays a significant role in enhancing customer loyalty and customers view CSR as an important factor in their loyalty to business firms. The variables that were measured in the study were CSR, industrial brand equity and brand performance. However, the variables that are relevant to this study are CSR and brand equity (which in the case of that study was industrial brand equity). The brand equity dimensions which were used were: brand equity; perceived quality; brand awareness; brand association and brand satisfaction. The CSR dimensions used for the study were employees, buyers, community, suppliers and competitors. The result of this study revealed that good CSR is not only good for the society but also provides companies with a competitive advantage by acquiring consumers in their market.

Lai, Chiu, Yang and Pai (2010) have also added to the literature on CSR and brand equity. Though their study was focused on business to business markets, it is still related to this current study and so worth consideration. The study discussed CSR from customers' perspectives by taking the sample of industrial purchasers from Taiwan small-medium enterprises. The aims of the study were (a) to investigate the effect of CSR and corporate reputation on industrial brand equity, (b) the effects of CSR, corporate reputation and brand equity on brand performance and (c) the mediating effects of corporate reputation and industrial brand equity on the relationship between CSR and brand performance.

This study gathered empirical data using a questionnaire survey among purchasing managers of Taiwan manufacturing and service companies. Questionnaires were mailed to 300 dealers the total number of returned questionnaires was 179 (response rate, 59.67%). This study used t-testing to compare the response groups before and after the telephone calls, with insignificant differences in terms of the percent of purchase, average of annual sales volume, capital, and industry type, with a p-value between 0.44 and 0.94; therefore, the combined statistical analysis was satisfactory. The empirical results supported the study's hypotheses that CSR and corporate reputation have positive effects on industrial brand equity and brand performance.

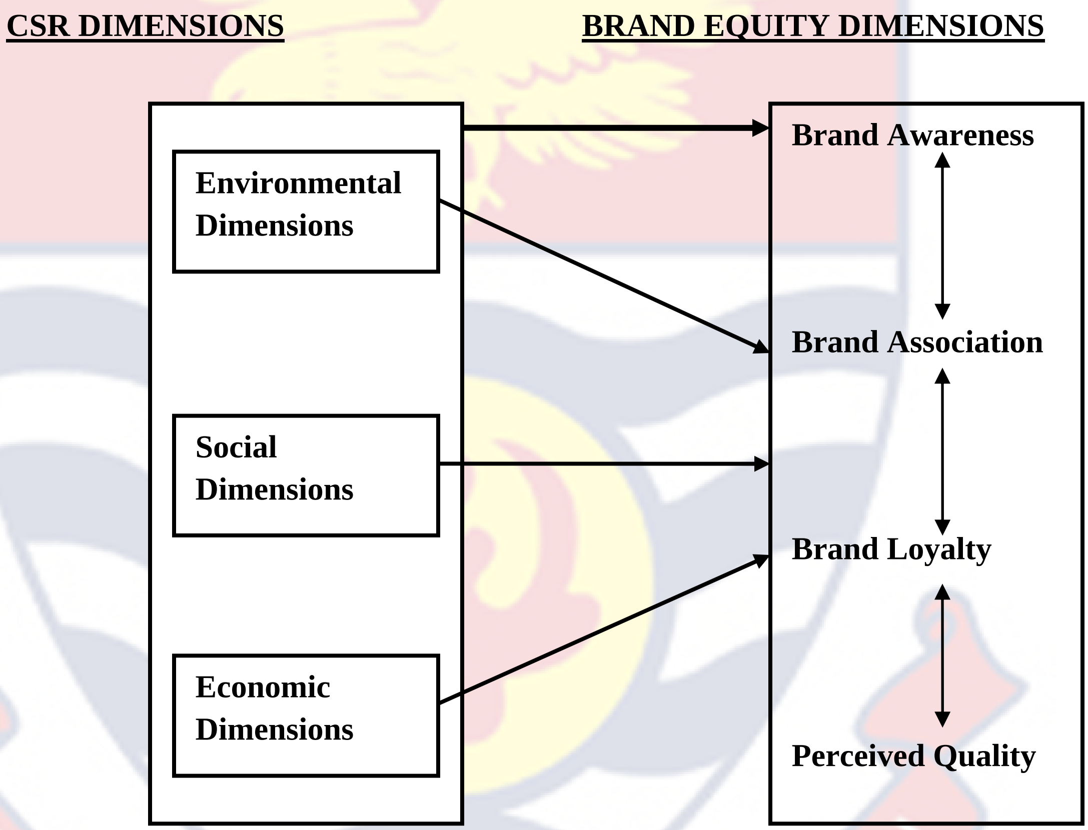
Kaur and Agrawal (2011) also conducted a study to help understand how CSR can lead to the creation of better brand image and for that brand equity. The study was based on secondary data, information collected from authentic sources such as books, journals, magazines and research reports and electronic data gathered through related web sites. Explanation and exploration of different types of conceptual information presented in the study is the result of observation, in depth reading, experiences and rational judgment of the author of the paper. They came to the conclusion that the benefits of using CSR in branded content are endless. The most important one is that it helps to build a brand's reputation and encourages consumer trust and loyalty which are all aspects of brand equity. They continued that if the consumers see that brands are addressing the issues that are important to them, it follows that they are likely to continue to buy their products. CSR initiatives can be extremely effective at forging deep meaningful connections with its consumers that transforms the loyalty of the consumer to them as a promoter of the company within their social networks.

Torres, Bijmolt, Tribó and Verhoef (2012), in testing whether any such relationship existed between CSR and brand equity, concluded that CSR to various stakeholders (customers, shareholders, employees, suppliers, and community) has a positive effect on global brand equity (BE). The two main variables for the study were CSR and brand equity. The independent variable for the study was CSR. The CSR dimensions used to measure CSR were community, customers, employees, suppliers and shareholders. The dependent variable brand equity was measured using the interbrand score. This consists of three indicators which are financial, role of brand and brand strength. The financial indicator was based on current and future revenues attributed to the brand minus the cost of doing business and intangibles. The role of the brand was measured by the brand’s ability to influence customers. Then, finally, the brand strength provides a bench mark of the brand’s ability to secure ongoing customer demand (loyalty, repurchase and retention). In addition, policies aimed at satisfying community interests help reinforce credibility to social responsible polices with other stakeholders. The researchers determined these theoretical contentions, using panel data comprised of 57 global brands originating from 10 countries (USA, Japan, South Korea, France, UK, Italy, Germany, Finland, Switzerland and the Netherlands) for the period 2002 to 2008. Their findings showed that CSR to each of the stakeholder groups had a positive impact on global brand equity. In addition, global brands that followed local social responsibility policies over communities obtained strong positive benefits in terms of the generation of brand equity, as it enhanced the positive effects of CSR to other stakeholders, particularly to customers. Therefore, for managers of global brands, it is particularly productive for generating brand value to combine global strategies with the satisfaction of the interests of local communities.

Niazi, Haider, Islam and Rehman (2012) also worked on the impact of CSR on brand equity in Pakistan. The researchers employed convenience sampling in collecting their data and used correlation, regression and factor analysis to analyse the data. They concluded that a directional relationship really exists between CSR and brand equity. The researcher, therefore, posits that:

H_4: CSR has positive association with brand equity

Conceptual framework for the study



Source: Adapted Iqbal (2012)

The conceptual framework for this study has its source from Aaker (1991) who started this whole idea of brand equity. The researcher, however, adapted Iqbal's model, which incorporated the relationship among the brand equity dimensions. As depicted by the model, all four brand equity dimensions are related, and it is their aggregation that results in brand equity (Iqbal, 2012).

Brand equity relies on all four dimensions, and so a brand cannot claim to have attained brand equity simply because it has a score on one of the dimensions.

In order to make it relevant to the current study, the researcher did two things: a) omitted the dimension, other proprietary brand assets, and b) incorporated CSR into the model. The two main variables in the study are CSR, which is the independent variable, and brand equity, which is the dependent variable. The independent variable is operationalised in the study using three dimensions. These are economic dimensions, environmental dimensions and social dimensions. The researcher was to determine whether CSR has a relationship with brand equity dimensions. The study was further to determine whether the CSR dimensions individually has a relationship with brand equity. Then finally, the study was to determine the best predictor of brand equity as a whole and then also, the individual dimensions of brand equity, that is, brand awareness, brand association, brand loyalty and perceived quality.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter discusses in the tools, techniques and methods used by the researcher to undertake the study. As already highlighted in the other chapters, the purpose of the research was to determine (if any) the relationship between CSR and brand equity in the telecommunication industry in Ghana. The chapter, therefore, looks at the specific techniques used in collecting empirical data for the study. It also explains the reasons for using those techniques. Issues concerning the study area, research design, the population for the study and the sampling procedures are carefully discussed in the chapter. Finally, the sources of data, data collection processes and instrument, data processing and data analysis are all indicated in the chapter.

Study area

The study was conducted in Cape Coast, specifically at the University of Cape Coast. The University of Cape Coast is one of the nine (9) public universities in the country. It is also the third largest preceded by the University of Ghana, Legon and Kwame Nkrumah University of Science and Technology (KNUST) respectively. It was initially established in 1962 as a university college which was affiliated to the nation's premier university –University of Ghana. However, through an act of parliament that is, the University of Cape Coast Act, 1971 (Act 390) and subsequently, the University of Cape Coast law, 1992 (PNDC law 278) the university college attained the status of a full fledge university with the power to confer its own certificates, diplomas and degrees. It currently has ten (10) faculties/ schools. These are Faculty of Arts, Faculty of Education, Faculty of Social Sciences, Faculty of Law, School of Agric, School of Business, School of Biological Sciences, School of Physical Sciences, School of Medical Sciences and finally, School of Graduate Studies and Research.

The choice of the institution was based on the study area. Cape Coast was selected based on convenience. The phenomenon under consideration pertains also in Cape Coast. All the telecom companies operate in Cape Coast just the same way as they do in all other parts of the country. They give the same services and at the same level of satisfaction as they do in all the other big cities and towns in Ghana. Secondly, like any of the big cities and towns in the country, it is a metropolis which embraces all sorts of people from all parts of the country. It, therefore, brings on board the diversity that is required for this study at the same time limiting it to the proper degree. The University of Cape Coast was, therefore, selected for the study. It is one of the very few public universities in the country and so houses a large number of people from all over Ghana.

Study design

The current study followed a descriptive survey research design. This is because the researcher's aim was to collect data and establish if there exists of any relationship between the variables that is CSR and brand equity. The choice of this study design is in line with Hair, Bush and Ortinau (2003). According to them ‘if the overall research objectives are to provide data that allow for *identifying meaningful relationships*, establishing the existence of true differences and / *verifying the validity of relationships between the market phenomena* then consideration should be given to the employment of descriptive research designs’(p.255). In establishing the relationship (if any), descriptive survey design would also help to describe the nature of the situation as it exist in the telecommunication industry at the time the study was conducted. Apart from the theoretical basis for selecting this research design, all the studies (Almohammed, 2010; Kaur & Agrawal, 2011; Niazi, Haider, Islam & Rehman, 2012; Pakseresht 2010; Torres, Bijmolt, Tribó & Verhoef, 2012) which were reviewed used the descriptive survey design. In doing this, the researcher, therefore, employed quantitative methods in collecting, processing and analysing the data.

Population

The target population for the study was tertiary education students in cape coast. The researcher was interested in a youthful and educated population. This group is more likely to appreciate the variables under consideration. Besides, they are most fascinated with technology related products, which include telecom services. They rely a lot on telecom services and hence compare the services of the different companies in order to get value for their money. Tertiary level students also have the freedom to choose which telecom network to subscribe based on their knowledge of telecom services.

Further, like the various study reviewed, the researcher employed the questionnaire as the main data collection instrument. In line with this, the researcher was convinced that the population understudy comprised of people who were able to understand and independently answer the questionnaire. For the purpose of the study, students from the University of Cape Coast were sampled for data collection. As at the time of the study, the total student population of the university was 17,034.

Sample and sampling procedure

Issues on sample size are very important in survey. This is because selecting the wrong sample size would always have serious implications on conclusions that would be drawn. Such a mistake would result in errors in judgement that would create some type of bias in the study. Probably, the safest way to go in a survey that involves using a very large population would equally be to use a large sample. Indeed, researchers generally agree that the larger the sample size, the greater the likelihood that the sample would be representative of the population. This would, in effect, enable the researcher make 'accurate' generalisations about the population. In order to minimise the possibility of selecting the wrong sample size, researchers have suggested formulae to be used in calculating 'appropriate' sample sizes for a given population (Kirk, 1995; Krejcie & Morgan, 1970; Tabachnick & Fidell, 1996). These would generally take into consideration confident intervals, statistical precision and degree of variability in the characteristic(s) under investigation (Hair et al., 2003).

In arriving at the 'appropriate' sample size for the study, the researcher relied on Krejcie and Morgan's 1970 sample size determination formula. The sample size is chosen at a 95% confidence level with 5% margin of error. The formula is as follows:

$$\text{Required sample size} = \frac{X^2\ NP\ (1-P)}{d^2\ (N-1) + X^2\ p\ (1-P)}$$

Where;

X^2 = the table value of chi-square for one degree of freedom at the desired confidence level.

N = the population size

P = the population proportion assumed to be .50 since this provides maximum sample size.

d = the degree of accuracy expressed as a proportion (.05).

The sample size for the study was obtained from the population of the students. From the table, the most appropriate sample for a student population of 17,034 is 377. This being the minimum sample size was further increased to 500. The purpose of this was to minimise sampling errors as much as possible. Table 1 shows the sample size and the adjusted sample size used for the study.

Table 1. Study population and sample

Gender	Total number of students	Sample size selected	Adjusted sample size
Male	11,214	247	320
Female	5,820	128	180
Total	17,034	377	500

Source: Field work, 2013.

The sample for the study was determined based on the figures obtained from the university. The four telecom companies that were selected for the study are MTN, Vodafone, Airtel and Tigo. The other two companies are Globacom and Expresso. All the university students subscribed to the selected telecommunication companies formed part of the sampling frame. Stratified random sampling was then used to select a total of five hundred (500) students on the basis of their sex. This was done with assistance from the university's Students Records Management Information Systems (SRMIS). They generated the respondents' list using stratified random sampling based on their students' records.

Research Instrument

A questionnaire was the main instrument used to collect data from the respondents. This was because of the choice of research design. It was also in line with the method of data collected used by other authors (Almohammed, 2010; Kaur & Agrawal, 2011; Niazi, Haider, Islam & Rehman, 2012; Pakseresht 2010; Torres, Bijmolt, Tribó & Verhoef, 2012) who had undertaken similar studies. Apart from these reasons, it was very convenient because all the respondents involved in the study could read and write. In addition, it was less costly, relatively less time consuming, provided anonymity to respondents and had no interview biases. The questionnaire consisted of both open-ended and closed-ended questionnaire items –they were all sixty seven (67) in number. These were carefully formulated to ensure that all the research questions would be duly covered and answered. With the exception of the items soliciting information on personal data, all the other items were measured on an agreement scale, from 0 to5 where 0 = no agreement, 1= least in agreement, 5= highest in agreement.

The research instrument was in 5 sections (A-E). The first section (A) dealt with the personal data of the respondents who took part in the study. It had seven (7) items. The next part from B-D had items concerning CSR in the telecom industry. These sections directly measured the individual indicators for CSR. These indicators included environmental dimensions (natural resources, health and diseases and physical environment), social dimensions (customers, employees, community, and digital divide) and economic dimensions (ethical dimension, taxation and distribution of income).Then, finally, the last part looked at customers' evaluation of brand equity of telecom brands regarding CSR. These also included the brand equity dimensions which are: brand awareness, brand association, perceived quality and brand loyalty.

Pre-Testing

A pilot study was undertaken in order to ascertain the reliability of the questionnaire. It was also to ensure that the respondents' understanding of the questions were as was intended. Then again, the pre-test showed whether the questions were difficult or not. A pilot study was conducted in March, 2013 using students of Takoradi Polytechnic. This institution was chosen for the pilot study because it was believed to possess similar characteristics of the items in the population. Being a tertiary institution, it has students who are comparable to university students.

The researcher sought permission from a lecturer and used his teaching period to conduct the study. Permission was granted after the researcher explained the purpose of the study. Both the lecturer and the students co-operated. In all, thirty (30) questionnaires were administered, and there was hundred percentage response rate. The number of respondents in the pre-test was sufficient to include any variations in the population, as confirmed by Saunders, Lewis and Thornhill (2007), that for most student questionnaires, a minimum of ten (10) for pre-test is sufficient.

During the pre-test, some of the respondents (students) sought clarifications to some of the questions. This drew attention to portions of the questionnaire that needed to be re-worked. With assistance from lecturers in my department, they were rephrased to make them easily understandable to the respondents. The statistical validation on the rating-scale questionnaire used for this study was based on the Cronbach's alpha reliability test. With the help of Statistical Product for Service Solutions version 17.0 (SPSS), the internal consistency of the data collection instrument for Cronbach's alpha co-efficients were determined. The reliability co-efficients for the questionnaire (Sections B, C, D and E) ranged between 0.741 and 0.933 (Table 2). Research has shown that scales with Cronbach's alpha co-efficient of 0.70 or more are considered more reliable (Pallant, 2005). No modifications were made to the questionnaire in terms of number of items in the constructs (CSR and brand equity), since all the constructs scored the required Cronbach's alpha co-efficient of 0.70 after the pilot study. Table 2 shows the computed reliability co-efficients.

Table 2. Computed Reliability Co-efficient for Pre-Test Data (Sections: B, C, D and E)

Questionnaire category	Number of items	Sample size	Cronbach's Alpha
Environmental dimensions	12	30	0.741
Social dimensions	16	30	0.905
Economic dimensions	12	30	0.830
Brand Equity	20	30	0.933

Source: Field Data (2013)

Data Preparation/ collection

Data from both primary and secondary sources was used for the study. Most of the secondary sources of data used in the study were journals, books, and the internet. In order to get specific data on their CSR activities, the researcher visited the head office of all four telecommunication companies selected for the study. After providing them with an introduction letter, they generously provided the relevant information.

Collecting the primary data was very involving. The sampling technique had to be repeated in order to get all the 500 respondents. This was because not all of the respondents could be reached on their phones. Again, some indicated that they were not interested in the study. Four research assistants (from the University of Cape Coast) assisted the researcher in the data collection. Their work was especially tedious because they each had to contact 100 respondents who were scattered all over the University. Respondents were individually taken through the purpose of the research after which the questionnaire was left with them to be completed at a more convenient time. Interestingly, though, most of them offered to answer the questionnaire instantly. For those who took it home, the questionnaires were retrieved at a later time.

Data analysis

The raw data collected through the questionnaire were edited, coded and converted into the actual variables of interest. The researcher used SPSS to analyse the data. The analytical techniques which were used for the data included: frequencies; percentages; means; modes; standard deviation; Pearson product moment correlation co-efficient and stepwise regression. These analyses were done in order to achieve all the research objectives. The specific statistical techniques were linked to the research objectives in the following manner:

The first objective was to identify the areas of concentration by the selected telecommunication firms with regard to their CSR activities. This was achieved using secondary data. There was no need to use any specific statistical technique in analysing this research objective;

Objective two was to determine the perception of customers regarding these CSR activities undertaken by the telecommunication companies. This was analysed using frequencies, percentages means and standard deviation;

Objective three was to determine the overall relationship between CSR and brand equity in the telecommunication industry in Ghana. The statistical technique used here was correlation to ascertain the possible association between the two variables, direction of the association and its intensity;

Objective four was to determine the best predictor(s) of brand equity among the CSR dimensions. Unlike the third objective, after ascertaining whether there was any relationship by means of correlation analysis, stepwise multiple regression was also used;

Finally, the objective five which was to determine the influence of the best predictor(s) on the individual dimensions of brand equity. This was also analysed using correlation and stepwise multiple regression techniques.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This part of the report presents the results and discussion of the current study. Various aspects of the respondents namely: gender, age, preferred network, number of years of subscription, whether respondents had switched networks or not, and reasons for the switch where applicable were analysed by computing frequencies and percentages for the data.

Preliminary analysis

Characteristics of respondents

Description of the characteristics of respondents: sex, age, preferred network, number of years of subscription, whether respondents have switched network before, reasons for the switch has been accounted for as follows:

Sex and Age

A total of 490 respondents indicated their sex during the data collection exercise. Out of this number, 313 of them representing 63.9% of respondents were males, and the remaining 177 representing 36.1% were females. Out of the 313 males, 276 representing 63.4% of males indicated their age category while 159 representing 32.4% of females also indicated their age category. There were 103 males representing 37.3% of males who were between 20 and 29 (20 and 29 inclusive) years of age. This figure (103) represented 62.4% of both males and females who were within this age category. The females within this same age group were 62 representing 39.0% of females, and 37.6% of both males and females within this age group. There were 102 males, representing 37.0% of males, who were between 30 and 39 years of age. This represented 61.4% of respondents (both males and females) within this age category. Within this same age group, there were 64 females, representing 40.3% of females, and 38.6% of respondents (both males and females). The majority of females were within this age group. Out of the 276 males who indicated their age, 64 (23.2% of males) were between 40 and 49 years. This figure represented 68.1% of respondents who were within this category of age. The females were 30, that is, 18.9% of females. This also represented 31.9% of respondents. The last category of age recorded 7 males and 3 females. This means that 2.5% of males and 1.9% of females were beyond 50 years of age.

In all, the age group with the highest respondents was those between 30 and 39 years of age. This group represented 38.2% of respondents followed closely by those between 20 and 29 years (37.9%), and the least being those beyond 50 years (2.3%). An Eta statistic computed produced 0.043, treating age as an interval data. It must be noted that the essence of collecting data based on sex was only to give a fair representation of both sexes on the UCC campus. Data was not analysed based on respondents' sexes.

These results are presented in Table 3.

Table 3: Frequencies and percentages of respondents' age and sex.

Age	Male			Female			Total		
	Freq	% within sex	% within age	Freq	% within sex	% within age	Freq	% within sex	% within age
20-29	103	37.3	62.4	62	39.0	37.6	165	37.9	100
30-39	102	37.0	61.4	64	40.3	38.6	166	38.2	100
40-49	64	23.2	68.1	30	18.9	31.9	94	21.6	100
50-59	7	2.5	70.0	3	1.9	30.0	10	2.3	100
Total	**276**	**100**	**63.4**	**159**	**100**	**32.4**	**435**	**100**	**100**

Network preferred and number of years subscribed

Four (4) telecom companies were used for the study. These are: MTN, Vodafone, Airtel and Tigo. Out of the 490 respondents, 252 representing 51.3% of preferred MTN as their telecom network operator, 169 representing 34.4% preferred Vodafone, 49 representing 10.0% Airtel, and 14 representing 2.9% Tigo. Seven (7) out of the 490 respondent representing 1.4% did not use any of these four (4) as their preferred operator. The respondents had used their preferred network from one (1) to fifteen (15) years. However, two (2) individuals had used one network for 19 years each. The modal number of years of subscription to the preferred network operator was 8 years (71 respondents). These results are presented in Table 4 and appendix B.

Table 4: Frequencies and percentages of preferred network of respondents.

Preferred Network	Frequency	Percentage
MTN	252	52.1
TiGO	14	2.9
Vodafone	169	34.9
Airtel	49	10.1

Switching networks and reasons for switching

In response to whether the respondents had switched from one network to another, 486 answered either yes or no, out of which 284 gave reasons that necessitated the switch. Three hundred and twenty-three (323) respondents said they had switched networks before whilst 163 had not (see appendices C and D). Among the several reasons given to explain the switch, poor network services accounted for the majority (32.6%). The next most important and frequent concern was high call rates (53 respondents representing 10.8%) followed by network unavailability in certain regions (20 respondents representing 4.1%). The desire to just experience other networks also accounted for 3.5%, and a host of other less frequent reasons altogether accounted for 6.9% (see appendix D).

In answering the question: 'have you ever switched from one network operator to another?' One important thing that should not be overlooked is the kinds of phone that are used by students. It can be observed that most people use two SIM phones. Therefore, whether or not one has ever switched networks may be influenced by the phone that person used. One may not have necessarily switched networks because of any of the above identified challenges with the various network operators. It could simply be that the person uses a phone that is able to support two (2) or more SIMs at the same time. Hence, it is understandable why 207 respondents did not indicate any reason for switching networks although they indicated that they had switched networks. Finally, one hundred and twenty- nine (129) respondents responded to whether or not they intended to switch networks. Out of these, 27 answered ‘yes’, 97 said ‘no’ whilst some 5 respondents said ‘may be’.

CSR activities of the telecommunication firms in Ghana

The first objective of the study was to identify the areas of concentration by the selected telecommunication firms where they have initiated and implemented CSR activities. Secondary data was used in achieving this aim. The information was gathered from the various websites of the companies involved in the studies. MTN undertakes CSR activities through the MTN foundation which was established in 2007. Its main focus is on education and health. It also undertakes activities aimed at enhancing the socio-economic life of individuals and communities as a whole. Some of their notable CSR projects include: internet festival (education on the benefits of internet); construction and renovation of educational facilities; sponsorship of festivals, academic scholarships, construction and renovation of health facilities; sponsorship of entertainment shows; and engaging the youth in various businesses activities. Vodafone Ghana is also involved in CSR projects. Their activities include: provision of boreholes in deprived communities; 24-hour health helpline;

contribution to already established educational funds in some traditional areas; community impact programme (contributes to charities); world of difference (sponsors individuals who have skills aimed at community development); community assistance programme; and sponsorship of entertainment shows. Airtel Ghana formerly Zain, is also actively involved in CSR. Its primary focus is on education. Some of its CSR initiatives are: school adoption, contributions to orphanages and donation of educational materials to deprived schools. Finally, Tigo's CSR projects are aimed at improving social life. They sponsor festivals and support social entrepreneurs who have good ideas.

Customers' perception of CSR activities that have been undertaken by the telecommunication companies

The second objective of the study was to ascertain customers' perception of the CSR activities embarked upon by the selected telecom companies. In order to do this, responses were collated according to the individual dimensions of CSR. The data collected was analysed into means, standard deviations, frequencies and percentages. A scale of inference which ranged between 0.00 and 5.00 was generated and categorised to indicate the perception as follows: 0.00-0.44 = No agreement; 0.45-1.44 = least in agreement; 1.45-2.44 = slightly in agreement; 2.45-3.44 = somewhat in agreement; 3.45-4.44 = high in agreement; 4.45-5.00 = very high in agreement.

Environmental dimension of CSR

Natural Resource

The results showing customers' perceptions of the CSR activities of the four telecom companies are shown in Table 5. The Table presents the frequencies and percentages of respondents per their level of perception of CSR activities with regard to each of the three (3) components that measures environmental dimensions, namely: natural resources, health and diseases, and the physical environment. The results, revealed that 83 representing 17% of customers who responded ***did not agree*** that the telecom companies were committed to carrying out CSR activities aimed at protecting the natural resources in the environment. An additional 136 (28%) ***least agreed*** that telecommunication companies in Ghana were committed to carrying out CSR activities which would protect the natural resources in the environment. One hundred and twelve (112) representing 23% of customers ***slightly agreed*** that telecommunication companies were committed to carrying out CSR activities aimed at protecting the natural resources in the environment. Also, 99 (20%), 47 (10%), and 9 (2%) of respondents respectively ***somewhat highly agreed***, ***highly agreed,*** and ***very highly agreed*** that telecommunication companies in Ghana were committed to carrying out CSR activities which were aimed at protecting the protecting the environment.

Table 5: Frequencies and percentages of customers' perception

		Customers' Perception											
		No agreement		Least		Slightly high		Somewhat high		High		Very high	
Component	N	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
NR	486	83	17	136	28	112	23	99	20	47	10	9	2
HD	477	20	4	71	15	119	25	149	31	99	21	19	4
PE	490	19	4	80	16	147	30	158	32	71	15	15	3

Scale for interpreting customers perception: 0.00-0.44 = No agreement; 0.45-1.44 = least in agreement; 1.45-2.44 = slightly in agreement; 2.45-3.44 = somewhat in agreement; 3.45-4.44 = high in agreement; 4.45-5.00 = very high in agreement.

In all, the highest response groups were those who ***least agreed*** that the telecommunication companies were committed to protecting natural resources in the country; this alone accounted for 28% of the responses.

This result is in line with what is seen in Ghana. Almost all natural resources such as water bodies, forest, wildlife etc. are in very deplorable states. Ghanaians are generally indifferent towards the preservation of these natural bodies. This may probably be that these natural bodies do not serve any purpose or even if they do, they may not directly affect the lives of the people. Therefore, they pay very little or no attention to such resources. It is apparent from the result that the telecom companies may have realised that Ghanaians themselves are not interesting in caring for their natural environment. So, they give customers what will interest them. From the findings these telecommunication companies may not necessarily be interested in undertaking CSR activities, but may be strategically aiming their CSR activities at customers so that they can be popular.

Health and diseases

From Table 5, out of 477 valid responses, 20 of these which represents 4% ***did not agree*** that telecommunication companies in Ghana were committed to carrying out CSR activities aimed at improving health and disease conditions in the environment; 119 that is, 25% ***least agreed*** that the telecommunication companies were committed to carrying out CSR activities to improve the health and disease status of the environment within which they operate. Out of the 477 responses though, 149 (31%) ***somewhat agreed*** that the telecommunication companies were committed to CSR activities that would improve health and diseases situation. This accounted for the biggest percentage. Also, 99 (21%) which is the second largest under this sub-dimension were in ***high agreement*** that the telecom companies were committed to improving health and disease situation in Ghana. Finally, 19 respondents which represent 4% were in ***very high agreement*** that the telecom companies were committed to carrying out CSR activities that helped improve the health and disease situations in the environment.

Most of the CSR activities undertaken by telecommunication companies in Ghana are in the form of sponsorship of TV and radio programmes which promote health issues. An example was the Vodafone healthline TV programme which was aired on GTV and on TV3. This programme won the Chattered Institute of Purchasing and Supply (CIPS), UK award for best CSR program, and also the Chattered Institute of Marketing, Ghana (CIMG) Telecom Company of the year 2011 partly because the Vodafone healthline was adjudged the best CSR program of the year 2011.

Physical environment

The results as presented in Table 5 shows that 19 customers that is, 4% of the total valid responses, ***did not agree*** that they perceived that the telecom companies selected for the study were very committed to improving the conditions of the physical environment within which they operated. Whilst 80 (16%) ***least agreed*** that the telecom operators were committed to improving the physical environment. Also, 147 (30%), 158 (32%), 71 (15%) and 15 (3%) indicated that they were in ***slightly high, somewhat high, high, and very high in agreement*** that telecom companies in Ghana were committed to improving the conditions of the physical environment respectively. Again, the highest frequency was those who ***somewhat agreed*** that telecom companies were committed to improving the physical environment.

The low values suggested that telecom companies did not contribute to filth and congestion. This was rather unexpected. This is because it can easily be observed that scratch cards are everywhere on the streets. This observation can even be made on the university campus where there are dust bins at several vintage points. Again, these telecom operators have their sales outlets mounted at virtually any vintage point apparently without state authourisation or perhaps due to negligence on the part of those responsible. These outlets, no doubt, contribute to congestion at commercial car parks, markets, etc. On the other hand, the question: 'your network operator's presence beautifies towns and cities had a relatively high weighted mean. This score obviously, is true of what can be observed, as the telecom operators usually have offices that are sophisticated and nice, which add to the beautification of cities and towns.

Table 6 gives the mean perception of commitment of telecom companies to carrying out CSR activities, as viewed by respondents. The results revealed that the over-all mean value for environmental dimension was 2.109 (SD = 0.8905). This gives a clear indication of the level of commitment that the selected telecom companies show with regard to improving the environment. The figures indicated that customers perceived that the selected companies' commitment to improving the environment was only ***slightly high***. The mean responses for the three (3) components that measured the environment were as follows: natural resource 1.7659 (SD = 1.2341), Health and Disease 2.4752 (SD = 1.1705), and Physical

Environment 2.3338 (SD = 1.1217). The means calculated for both natural resource and physical environment all fell within the mean values classified as ***'slightly high in agreement***' which suggests that telecom companies in Ghana are viewed by customers as only slightly committed to maintaining natural resource reserves such as water bodies, forests and wildlife, and climate, and to protecting the physical environment such as reducing filth, reducing congestion etc.

The findings from the study fell short of what was reported by Jucan and Jucan (2010). They stated that most companies were highly interested in environmental issues. According to them, managers scored environmental protection 63%, and this dimension is second only to the dimension keeping key employees. The differences could possibly be due to socio-cultural reasons. The selected companies may have realised that Ghanaians do not generally attach so much importance to protecting their environment. Hence, the telecom operators who are not philanthropist would, therefore, not 'waste' their resources on activities that would not result in their benefit. The mean for Health and Diseases was the highest amongst the three (3) components ($\mu = 2.4752$) which fell within the category classified as '***somewhat high***'. This was apparently because this sub-dimension underscored the fact that everyone appreciates the value of life. Hence, the customers considered activities aimed at improving the environment (with respect to health and diseases) as important. It is for this reason that the telecom operators probably focused it.

Table 6: Mean perceived commitment of telecom companies.

Component	Mean (μ)	Standard Deviation (σ)
Natural Resource	1.7659	1.2341
Health and Diseases	2.4752	1.1705
Physical Environment	2.3338	1.1217
Over-all environmental	**2.1905**	**0.8905**

Scale for interpreting customers' perceived commitment of telecom companies**:** 0.00-0.44 = no agreement; 0.45-1.44 = least in agreement; 1.45-2.44 = slightly high in agreement; 2.45-3.44 = somewhat high in agreement; 3.45-4.44 = high in agreement; 4.45-5.00 = very high in agreement.

Social Dimensions of CSR

Customers

There were 486 valid responses, from these, 30 (6%), did ***not agree***, 105 (22%), ***least agreed,*** 122 (25%), ***slightly highly agreed,*** 117 (24%), said they did ***somewhat highly agreed,*** 80 (16%), ***highly agreed,*** and 32 (7%) also said that they ***very highly agreed*** that telecom companies were committed to carrying out CSR activities that would improve customer services and experiences (see Table 7). The highest percentage (25%) was those who ***slightly agreed*** that the telecom companies were committed, and the while the lowest was those who said they did ***not agree*** at all that the companies selected for the study were committed to CSR activities.

Table 7: Frequencies and percentages of customers' perception regarding CSR activities measured by social dimensions

		Perception of customers											
		No agreement		Least		Slightly high		Somewhat high		High		Very high	
Component	N	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Customers	486	30	6	105	22	122	25	80	16	32	7	117	24
Employees	460	12	2	67	15	98	21	102	22	40	9	141	31
Community	474	20	4	77	17	91	19	123	26	71	15	92	19
Digital divide	476	18	4	78	16	110	23	85	18	54	11	131	28

Scale for interpreting commitment level: 0.00-0.44 = no agreement; 0.45-1.44 = least in agreement; 1.45-2.44 = slightly high in agreement; 2.45-3.44 = somewhat high in agreement; 3.45-4.44 = high in agreement; 4.45-5.00 = very high in agreement.

These findings are not really surprising. This is because customers have always complained about these telecom companies. Because of this the NCA slapped a GH¢900,000 fine on five mobile phone network operators for providing telecom services to consumers below the set benchmark for quality service. This punitive measure was done during the first quarter of this year. With the exception of Vodafone, all the other telecommunication companies that were part of this study were punished. MTN received the heftiest fine of GH¢300,000 while Airtel, and tiGO got GH¢100,000 fines each for being found liable on various counts, including defaulting call congestion, call setup time and signaling congestion obligations in some parts of the country (Ghana businessnews). Then, again, the national regulator (NCA) slapped a total of 1.2 million Ghana cedis (about US$ 750,000) for providing poor quality services to their clients. The punishment covered the third quarter of this year and affected all the four companies used in the study (African manager).

Employees

There were 460 valid responses. Out of these, 12 (2%) did ***not agree*** that telecom companies were committed to improving this aspect of social dimension. Also, 67 (15%) and 98 (21%) ***least agreed*** and ***slightly highly agreed*** that telecom companies were committed respectively to improving the dealings with their employees. Also, 141 representing 31%, which was the highest percentage, ***somewhat highly agreed*** that telecom companies were committed to improving employee experience. Then, 102 (22%) and 40 (9%) ***highly agreed*** and ***very***

highly agreed that telecom companies were committed to improving their employee experiences (see Table 7).

It is apparent that this is one area that telecommunication network operators seem to focus. What is popularly called 'space to space' is a means of providing job for unemployed youths. They also have the MTN 'hitmaker,' which is a means of unearthing talents and sponsoring these talented people in their music career. You see umbrellas mounted at virtually everywhere that you are likely to find people. Hence, it is not so surprising that the respondents think that the telecom companies are somewhat committed to improving this aspect.

Community

There were a total of 474 valid responses. Out of this, 20 (4%), 77 (17%), and 91 (19%) respectively indicated that they did ***not agree, they least agreed***, and they ***slightly highly agreed*** that telecom companies were concerned about improving the communities in which they operate. Also, 92 (19%) ***somewhat highly agreed*** that the telecom companies were concerned about improving communities in Ghana where they operate. Then, 123 (26%) and 71 (15%) ***highly agreed*** and ***very highly agreed*** that the telecom companies were concerned respectively about improving the communities in Ghana within which they operate (see Table 7). The highest percentage (26%) was the one recorded for those who were in ***high agreement*** that the telecom companies were concerned about community improvement, while the least (4%) was for those who did ***not agree*** that the telecom companies were concerned.

These results indicate that all four questions were almost equally treated by the telecom companies and some level of seriousness was attached to it.

Digital divide

In responding to their perception regarding CSR activities aimed at creating balance in services rendered to all sorts of customers, that is, services which take into consideration both the rich and poor, educated and uneducated, urban dwellers as well as rural folks, and the prominent as well as the marginalised, 18 (4%), 78 (16%) and 110 (23%) did ***not agree, least agreed***, and ***slightly highly agreed*** respectively that the telecom companies were committed to this course. Out of the 476 valid responses, however, 131 (28%) customers ***somewhat highly agreed*** that the telecom companies were committed, 85 (18%), and 54 (11%) ***highly agreed*** and ***very highly agreed*** respectively that the telecom companies were committed to creating a balance in the services rendered. The highest of these frequencies were those who ***somewhat highly agreed*** that the companies were committed (28%), and the lowest being those who ***did not agree*** at all that the companies were committed (4%) (See table 7). The most important area that the respondents perceived to have been handled well was the fact that the telecom companies, in most cases, communicated in languages best understood by their customers. The mean response for this question was 3.40.

The overall mean customer perception with regard to the social dimension issues of CSR activities undertaken by telecom companies was calculated to be 2.6093 (SD = 1.0896) (see Table 8). This suggested that customers apparently believed that telecom companies were somewhat highly committed or concerned about social issues affecting customers in Ghana. The respective means of the various components of the social dimension, namely customers, employees, community, and digital divide were also calculated to be 2.3287 (SD = 1.3033), 2.6984 (SD = 1.2411), 2.8321 (SD = 1.4301), and 2.6127 (SD = 1.2964). From these figures, it appeared that telecom companies in Ghana were 'least' concerned about improving customer services or experiences. These results are in line with the findings of Jucan and Jucan (2010) who reported that Danish companies were not enthusiastic about improving the quality of their services. That dimension scored 40% and was the ninth out of the ten dimensions used in the survey. The companies, however, appeared to be somewhat highly concerned about issues concerning their employees, the community and the digital divide.

Table 8: Mean perceive commitment of telecom companies with regard to social issues

Component	**Mean (μ)**	**SD**
Customers	2.3287	1.3033
Employees	2.6984	1.2411
Community	2.8321	1.4301
Digital divide	2.6127	1.2964
Overall mean	**2.6093**	**1.0896**

Scale for interpreting commitment level: 0.00-0.44 = no agreement 0.45-1.44 = least in agreement 1.45-2.44 = slightly high in agreement 2.45-3.44 =

somewhat high in agreement 3.45-4.44 = high in agreement 4.45-5.00 = very high in agreement.

The results in Table 8 can be related to the social projects that the telecom companies undertake. The responses seem to be a fair reflection of the focus of their CSR projects. For example, according to news reports from vibeghana (retrieved in 2013) within 5 years of the establishment of the MTN Ghana Foundation, this telecom giant spent some GHS 10,000,000 on building classroom blocks, refurbishment of hospital wards, building of teachers' bungalows and donating medical equipment to hospitals as well as supporting patients to undergo heart and reconstructive surgeries.

A similar news report on Vodafone by Ghanaweb (retrived in 2013) indicated that close to GH¢30,000 have been contributed to a number of educational funds of traditional councils across Ghana. They included Asogli State, Ga Traditional Council, Essikado Traditional Council, New Juaben Traditional Area, Otumfuo Educational Fund, Dakpema Educational Fund, and Bolga Traditional Council. A number of their projects centres on the community such as provision of over 400 phone booths in selected schools and communities, and on culture. For example, they partnered the Royal Ashanti Kingdom with a sum GH¢60,000 to celebrate 10 years of Otumfuo Osei Tutu II's reign. The company also supported the Akwantukese festival of the Chiefs and people of New Juaben in the Eastern Region with the sum of GH¢2,500. Thus, several of the CSR activities centres on the community and on education, but not so much on individual customers of the telecom companies. These findings are no different from those of Jin (2013) and Uddin et al (2008).

Economic dimensions of CSR

Ethical dimensions

There were 468 valid responses out of which 41 (11%), 121 (26%), 153 (33%), 86 (18%), 46 (10%) and 10 (2%) respectively indicated that they ***did not agree***, they ***least agreed***, they ***slightly highly agreed***, ***somewhat highly agreed***, ***highly agreed***, and ***very highly agreed*** that those four telecom companies in the study were unethical (see Table 9). The highest percentage fell to '***least agree'*** category (33%), and only 2% ***very highly agreed*** that the telecom companies were unethical.

Table 9: Income distribution frequencies and percentages.

		Customers' perception											
		No agreement		Least		Slightly high		Somewhat high		High		Very high	
Component	N	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Ethical	468	49	11	121	26	153	33	86	18	46	10	10	2
Taxation	464	65	14	163	35	105	23	86	19	31	6	14	3
Distribution of Income	462	11	2	60	13	110	24	168	38	91	20	22	5

Scale for interpreting customer perception: 0.00-0.44 = no agreement 0.45-1.44 = least in agreement 1.45-2.44 = slightly high in agreement 2.45-3.44 = somewhat high in agreement 3.45-4.44 = high in agreement 4.45-5.00 = very high in agreement

Taxation

Out of 464 valid responses, 65 (14%) ***did not agree*** and 163 (35%) of respondents ***least agreed*** that telecom companies in Ghana were responsible when it came to honouring their tax obligations. Also, 105 (23%) ***slightly highly agreed*** that these companies were responsible in terms of tax obligations, while 86 (19%) were of the opinion that they ***somewhat highly agreed*** that the four telecom companies were responsible in honouring their tax obligations. Only 6% (31) of respondents ***highly agreed*** that the companies were responsible, and finally, 3% (14) were of the opinion that they ***very highly agreed*** that the telecom companies were responsible (see Table 9)

The possible inferences that could be deduced from the figures were: (1) the telecom operators were responsible but the tax authorities do not commend them; (2) that the telecom operators were indeed irresponsible and that was why the tax authorities were not commend them; (3) that the respondents in this exercise did not have enough knowledge about whether the telecom companies indeed honoured their tax obligations and (4) the respondents did not have enough information as to whether or not the telecom companies were commended by the tax authorities.

Distribution of Income

With regard to the distribution of income, out of 462 valid responses, 11 (2%) and 60 (13%) ***did not agree*** and ***least agreed*** respectively that telecom companies distributed income fairly and evenly. However, 110 representing 24%

of respondents were in ***slightly high agreement*** that the telecom companies distributed income evenly and fairly. Then, 168 (38%), 91 (20%) and 22 (5%) ***somewhat highly agreed***, ***highly agreed*** and ***very highly agreed*** that the companies distributed income fairly and evenly (see table 9).

Table 10 gives the means of responses of the economic dimensions. The mean value calculated to assess how ethical telecom companies were was 1.8953 (SD = 1.1894). That for taxation was found to be 1.6995 (SD = 1.2173). These figures apparently suggested that telecom companies were least unethical and least irresponsible when it came to honouring tax obligations. The mean calculated for the distribution of income (2.5846; SD = 1.1005) was the highest. Apparently, the telecom companies distributed their income averagely fairly and evenly. On the whole, it appeared that telecom operators in Ghana are concerned about economic farewell of their customers and the community (μ = 2.0723; SD = 0.9061). Similarly, Jucan and Jucan (2010) also reported that companies were very much interested in charitable donations.

Table 10: Means of Economic Dimensions

Component	Mean (μ)	SD (σ)
Ethical	1.8953	1.1894
Taxation	1.6995	1.2173
Distribution of income	2.5846	1.1005
Overall	**2.0723**	**0.9061**

Scale for interpreting customer perception: 0.00-0.44 = no agreement 0.45-1.44 = least in agreement 1.45-2.44 = slightly high in agreement 2.45-3.44 = somewhat high in agreement 3.45-4.44 = high in agreement 4.45-5.00 = very high in agreement

The relationship between CSR and brand equity on the telecommunication industry in Ghana

Hypotheses testing

The third objective was to determine the relationship between CSR and brand equity. This was done by correlation analysis. The correlation analysis helped to determine whether or not there was an association between CSR and brand equity, the strength of the association, and the direction of the association (either positive or negative). A positive correlation coefficient of any of the three (3) aspects of CSR (environmental, social, and economic) indicated that carrying out more CSR activities or improving on many of the already instituted CSR activities could result in one's brand being valued by customers (brand equity).The reverse was true if the r value was negative. Once a positive or negative correlation was established, a test of significance of the coefficient of correlation was performed to determine whether the r value occurred only by chance. Also, the strength of correlation was ascertained by looking at the absolute value of r.

Table 11 presents correlation coefficients showing the relationship among variables of the study.

Table 11: Correlation matrix between brand equity and related variables of CSR

	Y	Env.	Soc.	Eco.	Overall CSR
Y	1				
Env.	0.416**	1			
Soc.	0.653**	0.585**	1		
Eco	0.498**	0.462**	0.394**	1	
Overall CSR	0.655**	0.833**	0.846**	0.750**	1

**** p<0.01**

Where Env= environmental dimensions

Soc = social dimensions

Eco = economic dimensions

There was a positive and significant relationship between brand equity and each of the following: environmental dimensions (r = 0.416), social dimensions (r = 0.653) and economic dimensions (r = 0.498). The overall relationship between CSR and brand equity was also found to be substantially positive and significant (r = 0.655), at an alpha level of 0.01. Specifically, the relationship between environmental dimension and brand equity was moderately positive, that of social dimension and brand equity was substantially positive whiles economic dimension and brand equity was also moderately positive. (Based on Davis' convention for describing magnitude of correlation coefficient; indicated as appendix I, p.152) The positive significant relationships mean that if telecommunication companies in Ghana want their brand to be well known and accepted by the masses then efforts at improving CSR activities with regard to these dimensions should be intensified. The results presented in Table 11 also confirm all four (4) relevant hypotheses namely:

- Environmental dimensions have a positive association with brand equity.
- Social dimensions have a positive association with brand equity.
- Economic dimensions have a positive association with brand equity.
- CSR has a positive association with brand equity.

These hypotheses were confirmed because brand equity had positive correlations with all the above mentioned dimensions. The correlations were quite substantial and statistically significant at an alpha level of 0.01 (see Table 11). The result of the study, confirm the results of the studies that showed that overall CSR has positive associations with brand equity (Kaur & Agrawal, 2011; Lai, Chiu, Yang & Pai, 2010; Niazi, Haider, Islam & Rehman, 2012; Pakseresht, 2010; Torres, Bijmolt, Tribó & Verhoef, 2012). Also, the result of the first hypothesis buttresses the findings of Ailawadi et al (2011) which concluded that undertaking environmentally related CSR projects have positive association with brand equity. The second hypothesis when tested produced results that were similar to that of

Jucan and Jucan (2010). Finally, economic dimensions also had a positive association with brand equity just as was reported by Hendersen (2001).

Collinearity diagnostic test

In order to achieve the fourth objective it was necessary to undertake multicollinearity test. This was to ensure that significant relationships among the independent variables did not bias the regression prediction.

From the correlation matrix in Table 11 and the R-squared and t-value significance in Table 12, showed that there was no significant collinearity between social dimensions and economic dimensions (that is correlations among the two independent variables [Social dimensions and Economic dimensions] are less than 0.8, R-squared is less than 0.75 and all t-values of the beta are significant) that may bias the prediction, hence the two (2) predictors were used for the prediction. Environmental dimensions recorded a t-value of 1.668 (p = 0.096) in the first step, and a t-value of -0.754 (p = 0.451) in the second entry hence did not qualify to be included in the predictions.

Table 12: Collinearity diagnostic test

Independent variable	R^2	t –values of beta	Sig
Constant	-	3.286	0.001*
Social dimensions	0.418	14.750	0.000*
Economic dimensions	0.487	7.946	0.000*

N = *p< 0.05 Source: field survey data

Best predictor(s) of brand equity among the CSR dimensions

The fourth objective of this study was to determine the best predictor(s) of brand equity. A stepwise multiple regression analysis was performed to determine the best predictors of brand equity. The probability of F to enter and to leave in both steps of entry in the stepwise multiple regression was 0.050 and 0.100 respectively. The size of the coefficient for each independent variable (beta unstandardised values) gave the size of the effect that variable had on the dependent variable, and the sign on the coefficient (positive or negative) gave the direction of the effect. The coefficient showed how much the dependent variable was expected to increase when the independent variable increased by one, *holding all the other independent variables constant*. If the coefficients of all the independent variables were zero (0) that is, if $\beta_1 = \beta_2 = \beta_n = 0$, then the null hypothesis (h_0: CSR has no association with brand equity) was accepted. Otherwise, the null hypothesis was rejected.

Also, four of the assumptions of linear regression were tested, namely: normality (by observing histogram and P-P plots); linearity (by observing scatter plots of standardized predictor values and standardized residual values); homoscedasticity (by observing studentised residual against standardized predictors); and independence of observations (by calculating Durbin Watson statistic where an approximate value of 2 shows independence). The Durbin Watson statistic was found to be 2.203 for this survey. These graphs are presented as appendices E, F, G, and H (pp.149-152).

Table 13 shows the stepwise multiple regression of brand equity on the related CSR variables. Social and economic issues of CSR emerged as the best predictors of brand equity in the Ghanaian telecommunication industry. These two variables contributed 48.7% explanation to brand equity (see Adj. R^2 change column in Table 12) in the study. Social dimension was the overall best predictor of brand equity, contributing 41.8% explanation in the variation within brand equity. Economic dimension contributed 6.9% explanation in the variation within brand equity

Table 13: Stepwise Multiple regression of Brand Equity and related CSR variables.

Predictor	Step of entry	Beta (standardised)	R^2	Adj. R^2	Adj. R^2 change	S.E.E	F Reg.	F. sig*
Social Dimensions	1	0.533	0.418	0.416	0.418	0.874	335.514	0.000
Economic Dimensions	2	0.287	0.487	0.485	0.069	0.821	221.601	0.000

N = 470**; *p<0.05** Source: field data 2013**.**

Dependent variable: Brand Equity

Regression equation (from unstandadised Beta)

Brand Equity = 0.568Soc + 0.361Eco + 0.373

Brand Equity = 0.373 if $\beta_1 = \beta_2 = 0$

Where Soc = social dimensions;

Eco = economic dimensions.

The regression equation reveals a positive correlation between brand equity and related variables of CSR. From the equation, it is deduced that for every unit increase in social dimension factors, it is expected that there would be a corresponding 0.568 increase in brand equity, holding all other variables constant. Also, for every unit increase in economic dimensions, it is expected that there would be an increase of 0.361 in brand equity dimensions, holding all other variables constant. In all, if the social dimensions and economic dimensions influenced brand equity equally, then it would be expected that there would be an increase of 0.373 in brand equity.

Best sub-predictors of brand equity

In relation to the fourth objective of the study. The researcher also sought to find out which of the sub-dimensions of CSR best predicted brand equity. For example, the researcher sought to find out which of the three (3) sub-dimensions of economic dimension namely ethical, taxation, and distribution of income, best predicted brand equity – as a composite variable. And also for social dimension which also best predicted brand equity. Since the environmental dimension did not qualify as one of the best predictors of brand equity, this was ignored. The researcher therefore had two best predictors (dimensions) for this analysis. The findings are presented below starting with the sub-dimensions of the social dimension.

Table 14 presents the correlation matrix between the four (4) sub-dimensions of the social dimension (customer, employees, community, and digital divide) and brand equity.

Table 14: Correlation matrix between brand equity and related variables of social dimension of CSR

	B. Equity	Customers	Employees	Community	Digital divide
B. Equity	1				
Customers	0.495**	1			
Employees	0.430**	0.537**	1		
Community	0.612**	0.530**	0.499**	1	
Digital divide	0.457**	0.572**	0.449**	0.490**	1

** p<0.01

There were substantially positive and significant correlations between brand equity and each of the following sub-dimensions of social dimension: customers (r = 0.495); employees (r = 0.430); community (r = 0.612); and digital divide (r = 0.457). All correlations were significant at an alpha level of 0.01. No multicollinearity test was performed for these variables because it had already been proven that the CSR dimensions were not related (see Table 12).

Table 15 gives a stepwise multiple regression of brand equity and the related variables of social dimensions of CSR. Community, customers, and digital divide were found to be the best predictors of brand equity. These three (3) variables accounted for 42.6% of the variations in brand equity (see Adj. R-square change in Table 15). The community emerged as the overall best predictor (sub-predictor), it alone accounting for 37.5% explanation to the variations in brand equity. Customers explained 4.0% while digital divide was the third best predictor (1.1% explanation). These results indicate that customers are primarily concerned about issues that either directly or indirectly affect their communities such as undertaking philanthropic activities, social education, and voluntary activities aimed at improving the quality of life in the community

Table 15: Stepwise multiple regression of brand equity and related variables of social dimensions of CSR.

Predictor	Step of entry	Beta (standardised)	R^2	Adj. R^2	Adj. R^2 change	S.E.E	F. Reg.	F. sig*
Community	1	.452	.375	.374	0.375	.90669	269.402	0.000
Customers	2	.179	.415	.413	0.040	.87790	159.148	0.000
Digital divide	3	.133	.426	.423	0.011	.87055	110.762	0.000

Again, the same analysis was done for the other best predictor (economic dimension). The researcher attempted to determine how its sub-dimensions influenced brand equity as a whole. Table 16 presents the correlation matrix between brand equity and the related variables within economic dimensions namely: ethics, taxation, and distribution of income.

Table 16: Correlation matrix between brand equity and related variables of economic dimensions of CSR.

	B. Equity	Ethical	TAX	Dist. Inc.
B. Equity	1			
Ethical	.347**	1		
Tax	.330**	.456**	1	
Dist. Inc.	.480**	.322**	.354**	1

**p<0.01

There were positive and significant correlations between brand equity and the following:

ethical (r = 0.347); taxation (r = 0.330); and distribution of income (r = 0.480). All correlations were positive and significant at an alpha level of 0.01.

Table 17 gives a stepwise regression of brand equity and the related variables of the economic dimension.

Table 17: Stepwise regression of brand equity and related variables of economic dimensions of CSR.

Predictor	Step of Entry	Standard beta	R^2	Adj. R^2	S.E.E	R^2 change	F	F. Sig.
Ethical	1	0.490	0.240	0.238	0.9970	.240	139.996	0.000
Tax	2	0.526	0.277	0.274	0.9733	.037	84.892	0.000
Dist. Inc.	3	0.534	0.285	0.280	0.9693	.008	58.643	0.000

The table shows that all three (3) variables of economic dimensions best predicted brand equity. Altogether, they accounted for 28.5% of the variations in brand equity (see R^2 change in table 17). Ethical issues emerged as the overall best predictor. It alone accounted for 24.0% of the variation in brand equity, followed by taxation (3.7%) then distribution of income (0.8%). Any attempt by telecom companies to improve or maintain their brand with regard to economic issues should focus extensively on ethics. These may include but not limited to making full disclosures of terms and conditions of service and offering services to customers only after their full consent has been sought. Taxation did not emerge as the overall best predictor apparently because taxes do not directly affect the well-being of the average Ghanaian. Due to misappropriation of funds by government officials, perhaps the respondents (and Ghanaians in general for that matter) did not think it so important.

Best predictors of brand equity dimensions

The final objective of the study was to determine how the best predictors also influenced the dimensions of brand equity. Though that was the major objective, the researcher further looked at the effect of their sub-dimensions on brand equity as well. The dimensions of brand equity namely are: brand awareness, brand association, brand loyalty, and perceived quality.

Best predictors of brand awareness

Table 18 shows the correlation matrix between brand equity and the best predictor variables of CSR namely social dimensions and economic dimensions.

There were positive and significant correlations between brand equity and each of these: social dimensions (S.D) where r = 0.492, and economic dimensions (E.D), r = 0.496. All correlations were substantial and significant at an alpha level of 0.01.

Table 18: Correlation matrix between brand awareness and related variables of CSR

	Overall B.E	**Overall S.D**	**Overall E.D**
Overall B.E	1		
Overall S.D	0.492**	1	
Overall E.D	0.496**	.394**	1

**** Correlation is significant at the 0.01 level (2-tailed).**

A stepwise multiple regression analysis revealed that economic dimensions variable accounted for 24.6% (see R^2 change in Table 19) of the variations in brand awareness. It emerged a better predictor of brand awareness. This was rather unexpected as social dimensions had emerged as the overall best predictor of brand equity. The social dimension variable offered 10.2% (see R^2 change in Table 19) of explanation of the variations in brand awareness in brand equity.

Table 19: A stepwise multiple regression of brand awareness and related variables of CSR

Predictor	Step of Entry	Standard beta	R^2	Adj. R^2	S.E.E	R^2 change	F	F. Sig.
Eco	1	0.355	0.246	0.244	1.0986	0.246	148.732	0.000
Soc	2	0.349	0.348	0.345	1.0226	0.102	121.536	0.000

Among the economic dimensions of CSR, distribution of income emerged as the overall best predictor (see Table 20). It alone accounted for over 18% of the variations in brand awareness, with the remaining two accounting for a little over 7%. This contrasted the results of the overall effect of economic dimensions on brand equity. Distribution of income was the least good predictor of the overall brand equity amongst the economic dimensions. However, as the results in Table 20 indicate a fair and even distribution of income seemed to promote brand awareness. The findings of this study, partly confirm the findings of Iqbal (2012) which indicated that brand awareness is built through the use of promotional tools. The economic dimension in this study was measured by some promotional tools and it also proved to be a better predictor of brand awareness.

Table 20: A stepwise multiple regression of brand awareness and related variables of economic dimensions of CSR.

Predictor	Step of entry	Standard Beta	R square	Adj. R square	S.E.E	R^2 Change	F	Sig. F
Dist. Inc.	1	0.308	0.182	0.180	1.13565	0.182	98.335	0.000
Ethical	2	0.228	0.251	0.248	1.08767	0.069	74.026	0.000
Taxation	3	0.135	0.265	0.260	1.07893	0.014	52.877	0.000

Best predictor of brand association

A correlation analysis performed between brand association and the related variables of CSR gave the results in Table 21. From the table, brand association had significant positive and substantial correlations with: social dimensions (Soc), where r was found to be 0.525, and economic dimensions (Eco), where r was calculated to be 0.466. All the correlations were positive and significant at an alpha level of 0.01, making it very substantial.

Table 21: Correlation matrix between brand association and related variables of CSR.

	B.A	Soc	Eco
B.A	1		
Soc	.525**	1	
Eco	.466**	.394**	1

****. Correlation is significant at the 0.01 level (2-tailed).**

From the two dimensions of CSR, social dimension emerged as a better predictor of brand association (see R^2 change in Table 22). This means customers would prefer that telecom companies carry out CSR activities that pertained to social issues. Clearly, social issues were important to customers as they alone contributed 27.6% explanation to the variations in brand awareness. Economic dimension issues contributed 7.3% explanation. It follows then that brand awareness and brand association of brand equity are predicted differently by different aspects of CSR.

Table 22: Stepwise regression of brand association and variables of CSR

Predictor	Step of entry	Standard Beta	R^2	Adj. R^2	S.E.E	R^2 Change	F	Sig. F
Soc	1	0.400	0.276	0.274	1.09059	0.276	171.116	.000
Eco	2	0.298	0.349	0.346	1.03514	0.073	120.168	.000

Table 23: Stepwise regression of brand association and related variables of social dimension of CSR.

Predictor	Step of Entry	Standard Beta	R^2	Adj. R^2	S.E.E	R^2 Change	F	Sig. F
Community	1	0.404	.259	.257	1.1065	0.259	149.916	0.000
Employee	2	0.202	.289	.285	1.0854	0.030	86.858	0.000

Among the social dimensions, community and employee issues emerged as the only predictors of brand association. Out of the two, however, community emerged as a better predictor. It alone contributed 25.9% explanation to the variations in brand association (see R^2 change in Table 23). Employee issues accounted for the remaining 3.0%. Iqbal (2012) states that brand association is sustained through loyalty. This assertion is confirmed by the study since the best predictor of brand association is social dimension.

Best predictor of brand loyalty

A correlation matrix between brand loyalty and related variables of CSR revealed that there were significant, positive and substantial correlations between these variables. Brand loyalty had the biggest and strongest correlation with social dimensions (Soc), where r was found to be 0.468. The coefficient of correlation between brand loyalty and economic dimensions (Eco) was found to be 0.432. Both correlations were significant at an alpha level of 0.01.

Table 24: Correlation matrix between brand loyalty and variables of CSR.

	Brand Loyalty	Soc	Eco
Brand Loyalty	1		
Soc	.486**	1	
Eco	.432**	.394**	1

****. Correlation is significant at the 0.01 level (2-tailed).**

A stepwise multiple regression revealed that social dimension emerged as the a better predictor of brand loyalty. The R^2 change value for social dimensions was 23.6%, and that of economic dimension being 6.0%. These findings are shown in Table 25

Table 25: Stepwise regression of Brand Loyalty and two of the related variables of CSR

Predictor	Step of entry	Standard Beta	R^2	Adj. R^2	S.E.E	R^2 Change	F	Sig. F
Soc	1	0.369	.236	.235	1.204	.236	137.63	.000
Eco	1	0.271	.296	.293	1.157	.060	93.251	.000

Further computations (refer to table 26) revealed that among the social dimensions, the best predictors were community, customer, and digital divide. Community emerged as the overall best predictor of brand loyalty. This implies that for a customer to value a particular telecom brand, the telecom operator should improve the community within which it operates. The community sub-dimension alone contributed 19.2% of the explanation of the variations within brand loyalty. The other two (2) sub-dimensions together contributed 4.4% explanation.

Table 26: Stepwise regression of brand loyalty and related variables of social dimensions

Predictor	Step of entry	Std Beta	R^2	Adj. R^2	S.E.E	R^2 Change	F	Sig. F
Comm.	1	.286	.192	.190	1.23972	.192	100.905	.000
Customer	2	.150	.224	.221	1.21607	.032	61.279	.000
Digital divide	3	.142	.236	.231	1.20789	.012	43.663	.000

These findings are consistence with the findings of Ailawadi et al (2011) which shows that social dimensions resulted in both attitudinal and behavioral loyalty.

Perceived Quality

As has been done for all other three (3) components of brand equity, a correlation analysis was performed between perceived quality and related variables of CSR. Table 27 presents this correlation matrix. From the table, there were positive, significant and substantial correlations between perceived quality and the two dimensions of CSR namely social dimension and economic dimension. The correlation coefficient between perceived quality and social dimension was found to be 0.655, and that for economic dimension was 0.311. Both correlations were significant at an alpha level of 0.01. It was noted that the strength of correlation between perceived quality of brand equity and social dimensions of CSR was over twice as much as that of economic dimensions.

A stepwise multiple regression was performed to determine the best among the two predictors. From Table 26, it is noted that social dimensions emerged as the sole predictor of the perceived quality of a brand. It contributed over 42% explanation of the variation within the perceived quality of the brand of telecommunication Company.

Table 27: Correlation matrix between perceived quality and related variables of CSR

	Perceived Quality	Eco	Soc
Perceived Quality	1		
Eco	0.311**	1	
Soc	0.655**	0.394**	1

****. Correlation is significant at the 0.01 level (2-tailed).**

The results from Table 28 show that social dimensions was the best predictor of the three (3) components of brand equity. This is in consonance with the already established finding that social dimensions were the overall best predictor of brand equity. Also, out of the four (4) sub-dimensions of social dimension, three (3) of them (community, customer, and digital divide) best predicted the perceived quality of the brands of telecom companies. Community dimension emerged as the overall best predictor of the perceived quality of the brands of telecom companies.

Table 28: Stepwise regression of perceived quality and related variables of CSR

Predictor	Step of entry	Standard Beta	R2	Adj. R2	S.E.E	R2 Change	F	Sig. F
Soc	1	.422	.421	1.1355	.422	320.290	.000	

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

The study sought to determine the relationship between CSR and brand equity in the telecommunication industry. To be able to do this effectively, five specific objectives were formulated for the study. In order to achieve these objectives both secondary and empirical data were used. Secondary data was used in answering the first objective whilst empirical data was collected for the remaining three objectives. Four hypotheses based on extant literature were also proposed in order to be able to accurately answer the third objective.

As a descriptive survey study, the researcher employed quantitative methods and techniques in analyzing the data that was collected. The researcher collected substantial amounts of data from enough members of the defined target population so that inductive logic could be used to understand the relationship being sought.

A survey instrument was developed for the study; this was the only data collection instrument used in the study. This was done because the main goal was to collect facts and estimate from a large representative sample so that decisions could be made about the phenomenon that was being considered.

Summary of key findings

The general objective of the study was to determine the relationship between CSR and brand equity. The findings of the study based on its objectives are explained next.

The first objective of the study was to identify the areas of concentration by the selected telecommunication firms with regard to their CSR activities. The findings were that the telecommunication companies undertook various CSR projects that could be assigned to the dimensions used in the study. However, these CSR projects were mainly within the social and economic dimension.

The second major objective of the study was to determine the perception of customers regarding these CSR activities undertaken by the telecommunication companies. The study identified three dimension that is, environmental, social and economic dimensions. These three dimensions each also had sub-dimensions. The environmental dimension was explained using natural resources, health and diseases and the physical environmental. Responses pertaining to the natural resources had a mean of 1.7659 which fell with the category slightly in agreement. Based on this, it can be concluded that customers perceived these companies were only slightly committed to maintaining the natural resources of the country. The next sub-dimension used for environmental dimension was health and disease. The mean of which was also 2.4752. This also fell within the group defined as somewhat high in agreement. Here, customers perceived that the telecommunication companies showed a slightly higher commitment to undertaking CSR activities pertaining to health and diseases. The last issue in the environmental dimension was physical environment which had a mean of 2.3338, meaning that customers, again, perceived that the companies CSR commitments regarding the physical environment was only slightly high. The aggregate effect of customers' perception regarding the environmental dimension had a mean of 2.1905. This indicated that customers generally slightly agreed that the four companies were interested in environmental issues.

The next major CSR dimension was social dimensions. These were explained using four variables. These were customers, employees, community and digital divide. The mean score of the individual variables were: customers-2.3287; employees-2.6984; community- 2.8321and digital divide-2.6127. These were interpreted as follows: for customer, slightly high in agreement; and for employees, community, and digital divide somewhat high in agreement. The overall mean for this dimension was 2.6093 meaning that customers somewhat high in agreement. These findings proved that customers perceived that the telecommunication companies seemed to be more interested in social issues than environmental issues.

The third dimension used was economic which also had three sub-dimensions. These were: ethical, taxation and income distribution dimensions. The ethical dimension had a mean of 1.8953 which was interpreted as slightly high in agreement showing that were committed to being ethical. Taxation scored 1.6995 also indicating that they were interested in honouring their tax obligations. Then, finally, distribution of income scored 2.5846 this showed that customers slightly agreed that the telecommunication companies distributed their incomes for the benefit of all in various communities. The overall mean for economic dimension was 2.0723 indicating a slightly high in agreement. This suggests that customers perceived that the selected companies did undertake some economic CSR activities.

The third major objective for the study was determining the overall relationship between CSR and brand equity. To be able to this well, four hypotheses were formulated; these were: H_1: Environmental dimensions have positive associations with brand equity; H_2: Social dimensions have positive associations with brand equity; H_3: Economic dimensions have positive associations with brand equity and H_4: CSR has positive association with brand equity. The results revealed that there was a positive and significant relationship between brand equity and all of the CSR dimensions. The correlation co-efficients for the dimensions were: environmental dimensions ($r = 0.416$); social dimensions ($r = 0.653$); and economic dimensions ($r = 0.498$). The overall relationship between CSR and brand equity was also found to be substantially significant and positive ($r = 0.655$). These figures were all computed at an alpha level of 0.01. Based on the correlation co-efficients all the four hypotheses for the study were accepted.

The fourth research objective was to determine the best predictor(s) of brand equity. Social and economic dimensions proved to be the best predictors of brand equity in the Ghanaian telecommunication industry. These two variables contributed 48.7% explanation to brand equity. Social dimension was the overall best predictor of brand equity contributing 41.8% explanation in the variation within brand equity. While on the other hand, economic dimension contributed 6.9% explanation in the variation. Within these best predictors (social and economic dimensions), the best sub-dimension predictors were also determined.

There was substantially positive and significant correlation between brand equity and each of the following sub-dimensions of social dimension: customers (r = 0.495), employees (r = 0.430), community (r = 0.612) and digital divide (r = 0.457). All correlations were significant at an alpha level of 0.01 as expected. It was, however, found out that the community, customers, and digital divide sub-dimensions were the best predictors of brand equity. These three (3) variables among them accounted for 42.6% of the variations in brand equity. The community emerged as the overall best predictor (sub-predictor), it alone accounting for 37.5% explanation to the variations in brand equity. Customers explained 4.0% while digital divide was the third best predictor (1.1% explanation). Concerning the economic dimensions, there was positive and significant correlation between brand equity and each of the sub-dimensions. They were as follows: Ethical (r = 0.347), Taxation (r = 0.330), and Distribution of Income (r = 0.480). All correlations were positive and significant at an alpha level of 0.01 as expected. The analysis showed that all three (3) variables of economic dimensions were best predictors of brand equity. Altogether, they accounted for 28.5% of the variations in brand equity. Ethical issues emerged as the overall best predictor. It alone accounted for 24.0% of the variation in brand equity, followed by taxation (3.7%) and distribution of income (0.8%).

The final objective was to determine the best predictors of each of the dimensions of brand equity. The individual dimensions used in the study were: brand awareness, brand association, brand loyalty and perceived loyalty. The CSR dimensions used for this were the two (social and economic) since they proved to be the best predictors of brand equity. The correlation co-effeicients for the best

CSR dimensions and brand awareness were: social dimensions where r = 0.492 and economic dimensions r = 0.496. These were substantial and significant at an alpha level of 0.01. A stepwise multiple regression analysis revealed that economic dimensions variable accounted for 24.6% of the variations in brand awareness of brand equity. It emerged as the better predictor of brand awareness. Amongst the economic dimensions of CSR, distribution of income emerged as the overall best predictor. It alone accounted for over 18% of the variations in brand awareness, with remaining two accounting for a little over 7%. The next brand equity dimension was brand association. It had significant positive and substantial correlations with: social dimensions, where r was found to be 0.525, and economic dimensions, where r was calculated to be 0.466. All the correlations were positive, significant at an alpha level of 0.01, and substantial. However, the better predictor of brand association was social dimension.

Amongst the social dimensions, community and employee issues emerged as the only predictors of brand association. Out of the two however, the community sub-dimension emerged as the better predictor. It alone contributed 25.9% explanation to the variations in brand association. Brand loyalty also had significant, positive and substantial correlations with the CSR dimensions (social and economic). A stepwise multiple regression revealed that social dimension emerged as the better predictor of brand loyalty. Further computations revealed that amongst the social dimensions, the best predictors were community, customer, and digital divide. Community emerged as the overall best predictor of Brand Loyalty. The last brand equity dimension was perceived quality. The correlation coefficient between perceived quality and social dimension was found to be 0.655, and that for economic dimension was 0.311. Both correlations were significant at an alpha level of 0.01. It was noted that the strength of correlation between perceived quality of brand equity and social dimensions of CSR was over twice as much as that of economic dimensions. A stepwise multiple regression was performed as a determinant of the better among the two predictors. It is noted that social dimensions emerged as the sole predictor of the perceived quality. It contributed over 42% explanation of the variation within the perceived quality of the brand of telecommunications companies. Out of the four (4) sub-dimensions of social dimension, three (3) of these namely community, customer, and digital divide, best predicted the perceived quality. However, eventually, community emerged as the overall best predictor of the perceived quality.

Conclusion

From the findings it can be concluded that the selected firms undertook CSR activities in all the dimensions used in the study. All the CSR activities identified could easily be grouped under the three dimensions.

Second, the study revealed that even though customers agreed that the telecommunications companies undertook some CSR projects in all the three dimensions used in the study, the companies mainly focused on the social dimensions. Hence, customers generally perceived that the firms were mostly interested in the social dimensions

Third, the study confirmed previous studies that suggested that CSR had positive association with brand equity. This is because all three dimensions (environment, social, and economic) of CSR had positive and significant relationships with brand equity. The results showed that customers responded favourably to CSR projects that they were familiar with.

Fourth, the study established that even though all three CSR dimensions predicted brand equity, the best predictors of brand equity were, actually, economic and social dimensions. From these two predictors: a) the best sub-dimension predictors from the economic dimension were ethical, tax and income distribution respectively. Ethical issues emerged as the overall best predictor; and b) the best sub-dimension predictor from the social dimension proved to be community, customers, and digital divide. The community emerged as the overall best predictor.

Finally, the study identified both the best dimension and also the best sub-dimension predictors of CSR that best influenced the dimensions of brand equity (band awareness, brand association, brand loyalty and perceived quality). The findings were quite interesting as economic dimension proved to be the best predictor of brand awareness, with income distribution emerging as the overall best sub-dimension predictor. This was interesting because, among the two CSR dimensions that best predicted brand equity, social dimension better predicted brand equity. Concerning brand association, social dimension was the best predictor, with community being the best sub-dimension predictor. Then brand loyalty was best predicted by social dimension with community sub-dimension being the overall best predictor. Finally, perceived quality was predicted by social dimension with community being the best sub-dimension.

Recommendations

The following recommendations were made based on the findings from the study: Customers generally perceive that the CSR activities are not very high. Apart from implementing CSR projects, the companies should vigoursly advertise their activities. They should bring these activities to the attention of customers so that customers would appreciate the efforts they are making in the communities where they operate. These companies can use electronic media (especially television and radio) so that they can have a wider coverage. For example, since customers could not really answer questions regarding the tax obligations of the companies, it would be in their interest to educate the general public on how responsible they have been regarding their taxes.

Due to the relationship between CSR and brand equity, these companies should seriously undertake CSR projects as a strategic tool not just as some social obligation. Telecommunication companies in general should use CSR as a strategic tool in order to build their brands. They should capitalise on the positive perceptions that customers have about CSR and embark on relevant CSR projects.

Since resources may be scarce even for big firms, these should be concentrated on the social and economic dimensions since that would contribute to brand equity. Companies should be prudent in directing their resources so that they can get the best out of these resources. Simply undertaking CSR projects as have been revealed in this study may not necessarily result in building CSR. They would therefore want to develop CSR projects that are economically and socially oriented.

Companies may work on building the individual components of brand equity if that is their aim by embarking on CSR projects that best predict those dimension(s) that they may be interested in. For example if companies are interested in brand loyalty, they may have to invest more in CSR projects that are within the social dimensions.

Suggestions for future research

This study cannot bring closure to the constructs CSR and brand equity. Researchers may take advantage of the limitations of this research to further explore the relationship between these constructs. Some of these issues that may interest marketing researchers are:

Industry: the study was limited to the telecommunications industry in Ghana. This was because that industry is very vibrant. The industry has oligopolistic features, making it very interesting. Besides, they are almost always in the news for one thing or the other. Very few industries have received so much attention like this. Researchers, however, can replicate this study in other industries to determine the reliability or generalisability of the findings.

Model and dimensions: the researcher limited the study to Aaker's brand equity model and the three CSR dimensions. There are other brand equity models that can be used to test the relationship. Regarding CSR, there are also a number of dimensions that can be used to operationalise it. Other researchers can try out these dimensions to again assess the veracity of the findings.

Area of study: the study was conducted at the University of Cape Coast. Ghana is reasonably large and has other universities. Researchers can undertake a similar study in the other places in Ghana. Doing this can further validate the findings of this study.

Respondents: the study used customers as respondents. It may be appropriate for another study to also look at effect of CSR on brand equity from the perspective of employees and managers.

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APPENDICES

Appendix A: Questionnaire

The Relationship between Corporate Social Responsibility (CSR) and Brand Equity in the Telecommunication Industry in Ghana

This questionnaire has been designed to solicit information for a research work being undertaken to determine the relationship between Corporate Social Responsibility (CSR) and Brand Equity in the telecommunication industry. This questionnaire will take about 20 minutes of your time. Your opinions are important to the study and they will strictly remain confidential.
Thank you for your help.

INSTRUCTION: Please tick [√] where applicable and provide answers where appropriate.

SECTION A: PERSONAL DATA

1. Gender: Male ( ) Female ( )

2. Age: ( )

3. Preferred network operator: MTN ( ) TIGO ( ) Vodafone ( ) Airtel ( )
4. Number of years subscribed to that network: ( )

5. Have you ever switched from one network operator to another? Yes ( ) No ( )

6. If Yes above, what was your reason(s)?

7. If No, do you intend to switch networks?

CORPORATE SOCIAL RESPONSIBILITY IN THE TELECOM INDUSTRY

SECTION B: ENVIRONMENTAL DIMENSIONS

For each of the following statements, please check the response that best expresses the extent to which you either agree or disagree with that statement. **The ratings range from 0 to 5; where 0= no agreement, 1= least in agreement, 5= highest in agreement.**

SECTION B.1: Natural Resources

Statements	**0**	**1**	**2**	**3**	**4**	**5**
B1. The activities of your telecom operator negatively affect the natural environment (water bodies, forest & wildlife and the climate).						
B2. Your telecom operator regularly sponsors activities aimed at improving the natural environment (water bodies, forest & wildlife and the climate).						
B3. Your telecom operator has instituted programs aimed at ensuring that the natural environment is protected.						
B4. Your telecom operator publicly shows their interest in caring for the natural environment.						

SECTION B.2: Health and diseases

Statements	**0**	**1**	**2**	**3**	**4**	**5**
B5. Your telecom operator has been accused of emitting harmful electro-magnetic waves.						
B6. Your telecom operator is involved in the campaign against any of the prevalent diseases in the communities where they operate.						
B7. Your telecom operator sponsors health programs (e.g. health walks, health related TV & radio programs).						
B8.Your telecom operator has adopted a health care centre (or facility) in any of the communities where they operate.						

SECTION B.3: Physical Environment

Statements	0	1	2	3	4	5
B9. The activities of your network operator contribute to filth in the environment.						
B10.The various sales outlets used by your network operator contribute to congestion in towns and cities.						
B11. Your network operator's presence (e.g. offices, billboards, posters and pylons) beautifies towns and cities.						
B12. Your telecom operator properly buries all underground cables.						

SECTION C: SOCIAL DIMENSIONS

For each of the following statements, please check the response that best expresses the extent to which you agree with that statement. **The ratings range from 0 to 5; where 0= no agreement, 1= least in agreement, 5= highest in agreement.**

SECTION C.1: Customers

Statements	0	1	2	3	4	5
C1. Your telecom operator undertakes responsible marketing that result in the provision of satisfactory services.						
C2. Your telecom operator ensures responsible technology that filters access to unwanted services.						
C3. Your telecom operator provides customer update by giving advice on security issues from their official website.						
C4. Your telecom operator undertakes satisfaction surveys to assess customers' perception of the quality of their service.						

SECTION C.2: Employees

Statements	0	1	2	3	4	5
C5. It feels good to be an employee your telecom operator.						
C6. There is the general perception that your telecom operator takes care of all its employees.						
C7. Your telecom operator is credited with creating employment for the marginalized in the						

society.						
C8.Your telecom operator provides equal opportunities to all those who qualify to work with them.						

SECTION C.3: Community

Statements	**0**	**1**	**2**	**3**	**4**	**5**
C9.Your telecom network operator undertakes philanthropic activities in various communities in your country.						
C10.Your telecom network undertakes voluntary activities that are aimed at improving the quality of life in the community.						
C11. Your telecom network sponsors programs that are related to improving the general welling-being of the society.						
C12.Your telecom operator regularly undertakes social education on issues that are relevant to the society.						

SECTION C.4: Digital divide

Statements	**0**	**1**	**2**	**3**	**4**	**5**
C15.Your telecom operator provides/services in flexible prices to meet the needs of customers in remote areas.						
C16. Your telecom operator communicates to customers in languages that are best understood by them.						
C17. Your telecom operator ensures that the quality of service to both urban and rural areas is the same.						
C18. Your telecom operator ensures equal access to product/service and promotions for groups with special needs (illiterates, less educated and people with disabilities).						

SECTION D: ECONOMIC DIMENSIONS

For each of the following statements, please check the response that best expresses the extent to which you agree with that statement. **The ratings range from 0 to 5; where 0= no agreement, 1= least in agreement, 5= highest in agreement.**

SECTION D.1: Ethical Dimension

Statements	0	1	2	3	4	5
D1. Your telecom operator has ever been accused of involvement in scandalous activities.						
D2. Your telecom operator always gives full disclosure of terms and conditions, which results in informed decisions by customers.						
D3. Your telecom operator imposes services on customers without their consent and knowledge.						
D4. Your telecom operator gives customers' telephone numbers to other institutions and individuals who burden customers with unsolicited text messages.						

SECTION D.2: Taxation

Statements	0	1	2	3	4	5
D5. Your telecom operator has ever been highly commended by tax authorities for tax compliance.						
D6. Your telecom operator has ever been accused of tax evasion.						
D7. Your telecom operator tries to avoid taxes by engaging in frivolous sponsorships.						
D8. There is the general perception that telecom operators are notorious for tax evasion.						

SECTION D.3: Distribution of income

Statements	0	1	2	3	4	5
D9. Your telecom operator undertakes promotions that generally benefit all customers.						
D10. Promotional offers undertaken by your telecom operators generally benefit very few customers.						
D11. So-called income distribution activities undertaken by your telecom operator are actually a means of taking money from customers.						

D12.Your telecom network operators undertake projects that financially benefit deprived members of society irrespective of whether they are their customers.						

CUSTOMERS' EVALUATION OF THE BRAND EQUITY OF TELECOM BRANDS REGARDING CSR.

SECTION E: BRAND EQUITY DIMENSIONS

For each of the following statements, please check the response that best expresses the extent to which you agree with that statement. **The ratings range from 0 to 5; where 0= no agreement, 1= least in agreement, 5= highest in agreement.**

SECTION E.1: Brand Awareness

Statements	0	1	2	3	4	5
E1. I am aware of all the brands that implement CSR policies.						
E2. I know the specific CSR activities that my network provider undertakes.						
E3. I can easily recall the symbol of my network provider because of its CSR activities						
E4. I can easily recall the colour of my network provider because of its CSR activities						
E5I have difficulty imagining brands that practice CSR.						

SECTION E.2: Brand Association

Statement	0	1	2	3	4	5
E6. CSR activities raise the profile of brands in consumers' minds						
E7. I can easily identify CSR activities with my current telecom network.						
E8. I am happy to be part of an organisation that undertakes CSR activities.						
E9.I am ready to pay premium prices to my network operator because of their CSR activities.						
E10.I am prepared to contribute to any CSR fund that is instituted by my network operator.						

SECTION E.3: Brand Loyalty

Statements	0	1	2	3	4	5
E11.It makes sense to subscribe to a network operator who practices CSR instead of other brands even if the quality of their services is the same.						
E12.CSR activities have increased the level of trust you have in your network operator.						
E13. I consider myself loyal to my telecom network because it practices CSR.						
E14. A pro CSR network operator would always be my first choice.						
E15.It will be disloyal on my part to subscribe to a second telecom operator who does not undertake CSR.						

SECTION E.4: Perceived Quality

Statements	0	1	2	3	4	5
E16.When it comes to effectiveness, I rate my network operator above all others						
E17. My network operator is the most credible of all the network operators						
E18. I consider my network operator as very attractive because of their CSR involvement						
E19. The CSR activities undertaken by my telecom operator adds to the quality of service they render						
E20.Generally, I rate my network operator above all others because of their CSR activities						

Appendix B:

Frequencies and percentages of number of years of subscription to network.

No. of years of subscription	Frequency	Percentage
1	22	4.7
2	31	6.7
3	40	8.6
4	43	9.3
5	54	11.6
6	30	6.5
7	41	8.8
8	71	15.3
9	37	8.0
10	57	12.3
11	6	1.3
12	10	2.2
13	13	2.8
14	5	1.1
15	2	0.4
19	2	0.4

Appendix C:

Frequencies and percentages of whether one has ever switched networks

Switched Network or Not	Frequency	Percentage
Yes	323	66.5
No	163	33.5

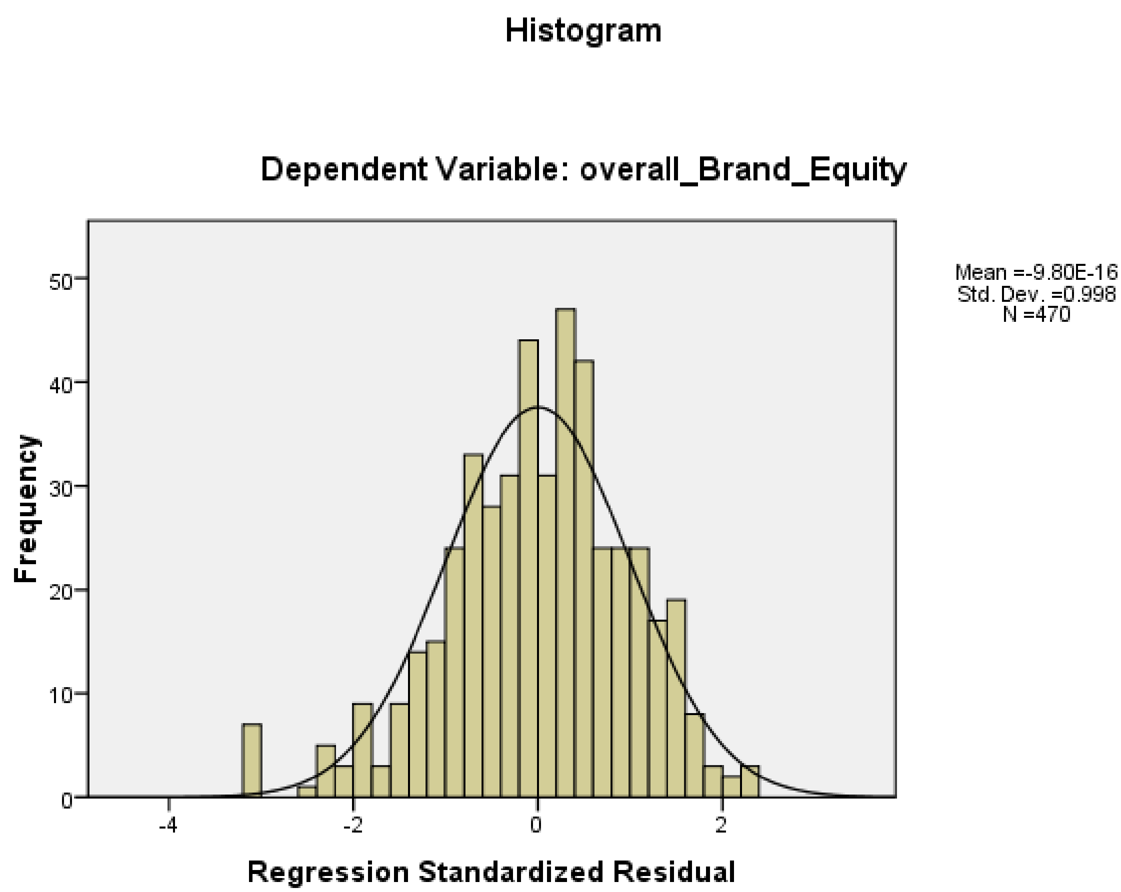
Appendix D:

Frequencies and percentages of "reasons why respondents switched networks".

Reasons for Switching Networks	Frequency	Percentage
Poor services	160	56.3
High call rates	53	18.7
To experience other networks	17	6.0
Network Unavailable	20	7.0
Others	34	12.0

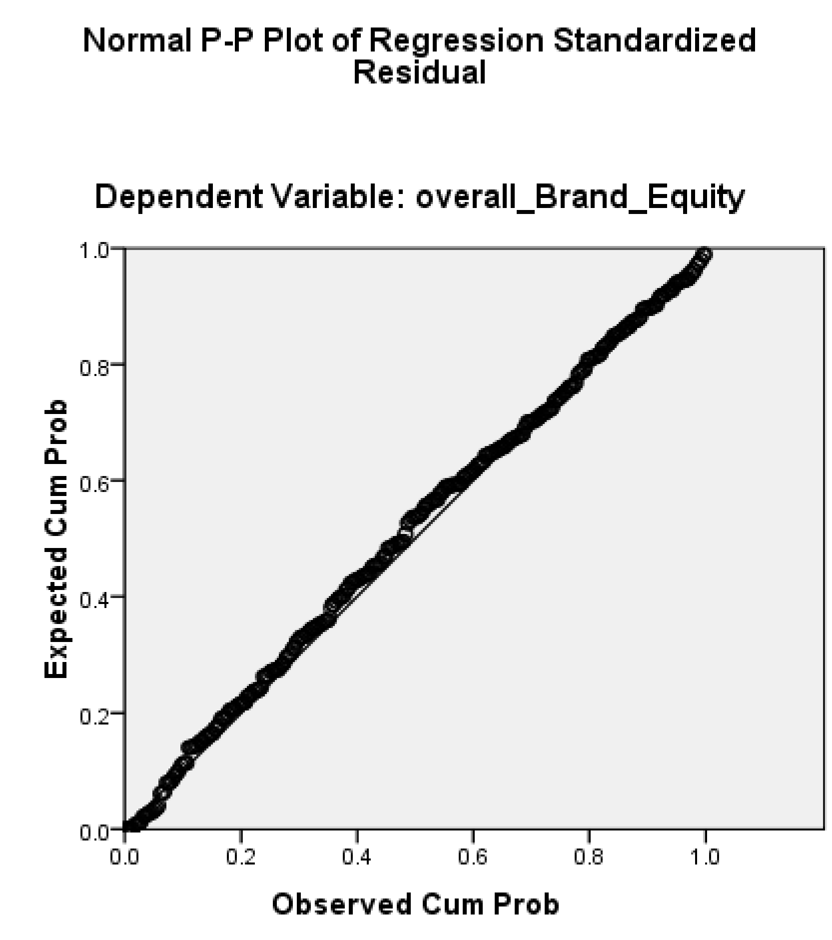
Appendix E:

Test of Normality



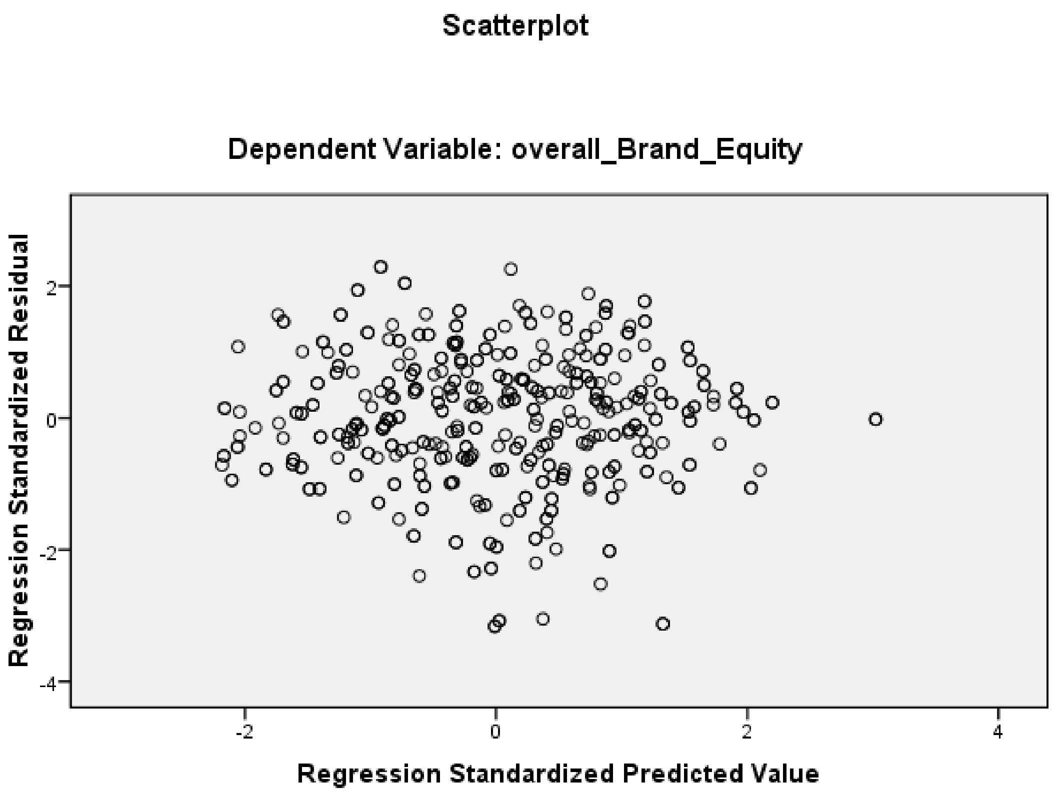
Appendix F:

Test of Normality



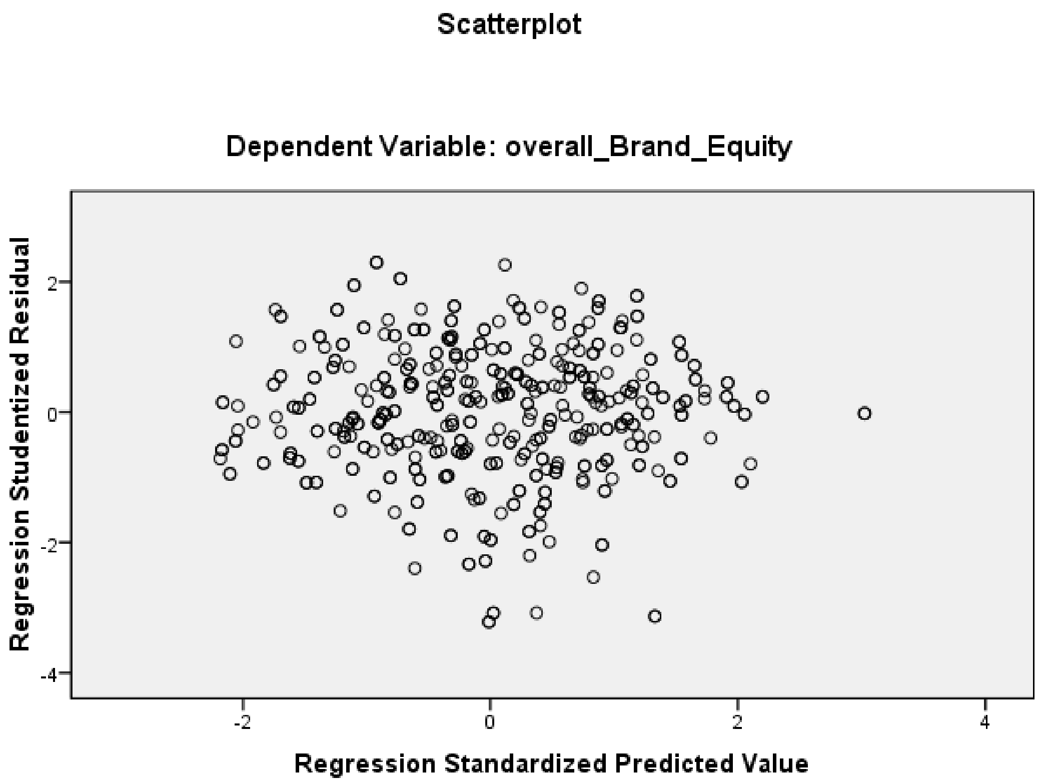
Appendix G:

Test of Linearity



Appendix H:

Test of Homoscedasticity



Appendix I:

Davies' convention

Scale	Interpretation
1	Perfect
0.7 – 0.99	Very high
0.5 – 0.69	Substantial
0.3 – 0.49	Moderate
0.10 – 0.29	Low
0.01 – 0.09	Negative

Source: Davis (1971)