

UNIVERSITY OF GHANA

**SOCIAL MARKETING: THE USE OF SOCIAL COGNITIVE THEORY TO
INFLUENCE BREAST CANCER SCREENING IN GHANA**

BY

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**THIS THESIS SUBMITTED TO THE UNIVERSITY OF GHANA,
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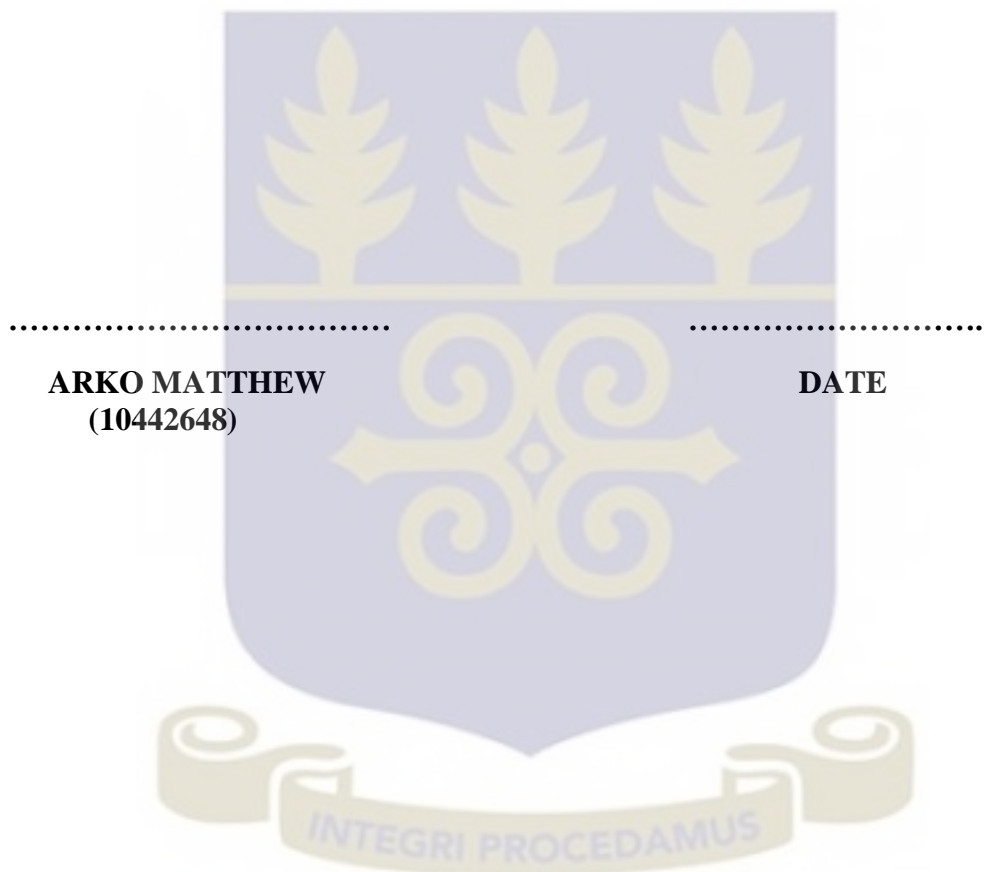
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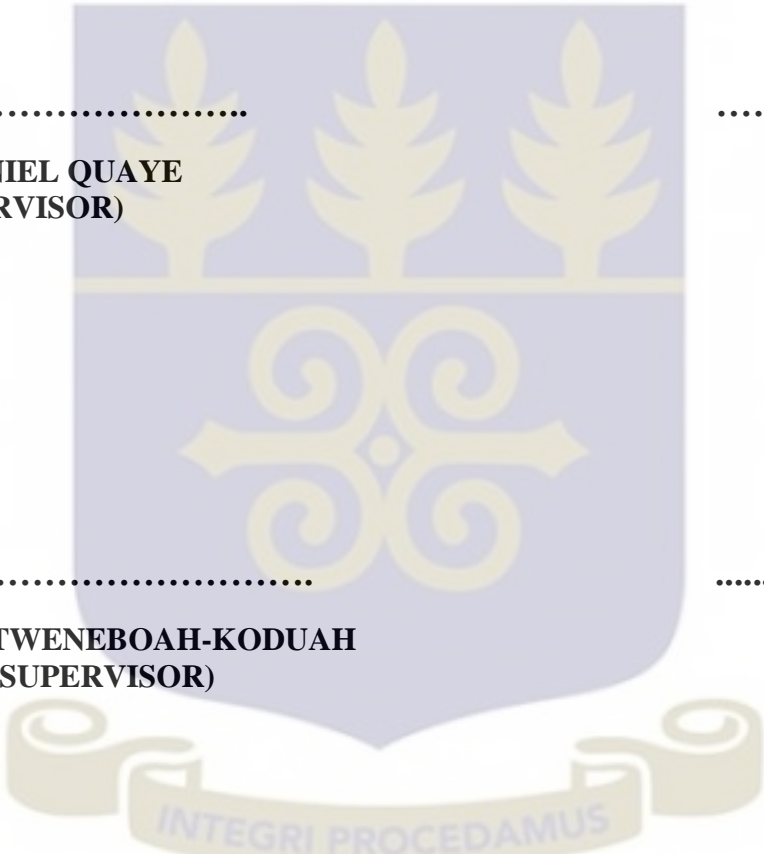
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DEDICATION

This work is dedicated to my wife, Sophia Arko, and my children, Dasia, Belicia and Giosia for their sacrifice, prayer support and absolute care.

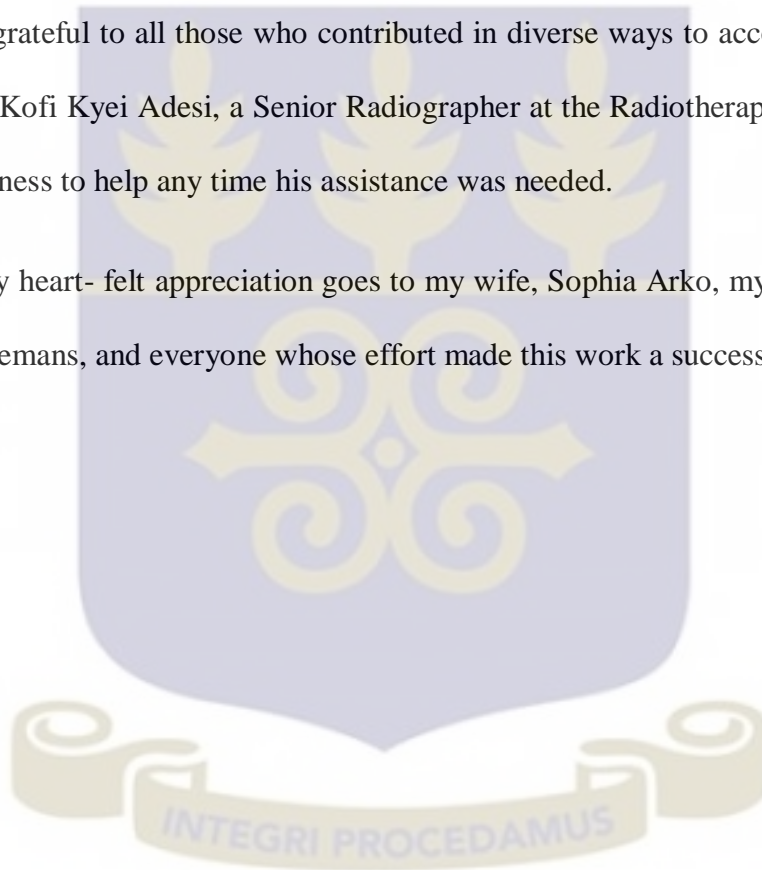


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ABSTRACT

Breast cancer is the most common type of cancer among women in both high-resource and low-resource countries. According to the Breast Cancer Research Foundation, breast cancer accounts for 12% of all female cancers with the majority (60%) of breast cancer deaths occurring in less-developed countries. Despite the increasing rate of breast cancer deaths, there are a lots of women who do not examine their breast on regular basis and a lot more who do not seek medical assistance as early as possible. Currently, there is no national data available on breast cancer screening and the factors that influence screening behaviour among Ghanaian women. Although some literature about barriers to breast screening exist in Ghana, the factors which prevent women from screening their breast is under researched. There is therefore the need to investigate the factors which are likely to influence breast cancer screening among Ghanaian women so as to tackle this public health burden with effective preventive strategies.

The goal of this study was to adapt the social cognitive framework to examine the factors that are likely to influence breast cancer screening in Ghana.

A quantitative research was conducted among women at the Madina market, a Sub Metro within Accra Metropolitan area. Using non- probability sampling, a total of 300 respondents, made up of women from 18 years and above were contacted. A closed ended self-administered questionnaires were used to collect information on demographics, personal, immediate and wider environmental influences, and finally breast cancer screening behaviour. Finally, Pearson's correlation test was used to analyse the data collected.

This study has contributed to new knowledge of breast cancer epidemiology in Ghanaian women. Immediate environmental factors, wider external environmental

factors and personal characteristics were identified as having significant relationship with breast screening behaviour. This study revealed that the factors which influenced breast cancer screening among Ghanaian women included immediate environmental factors, wider external factors as well as personal characteristics. Further investigations are recommended, probably to replicate similar research in other countries in Africa and India which may share common characteristics with Ghana. Again, future research should focus on qualitative research since this study adopted quantitative approach.



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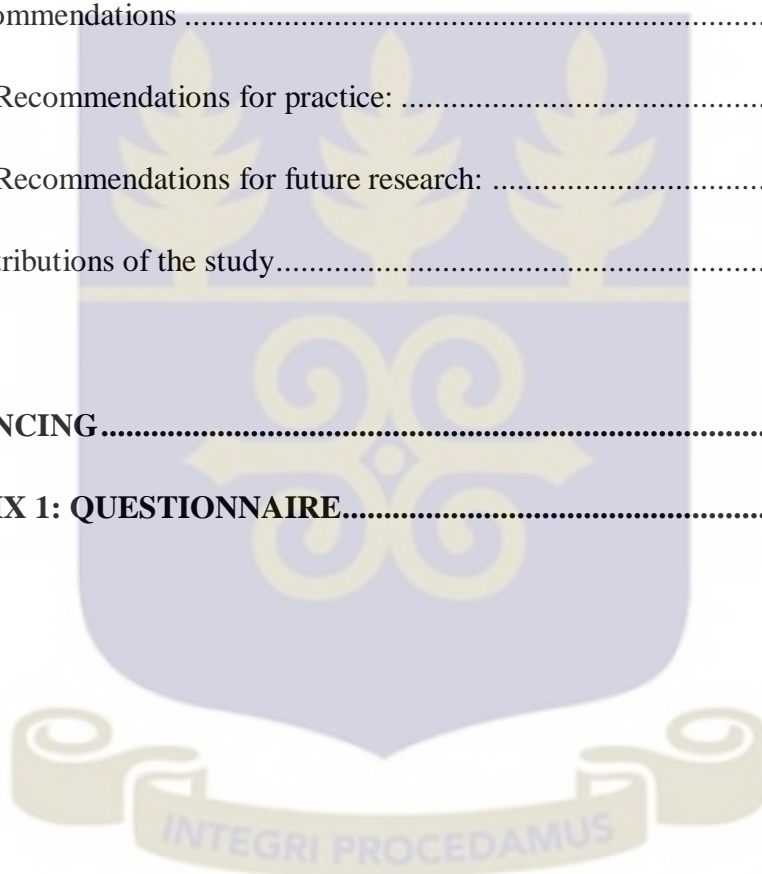
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CHAPTER ONE

1.0 Introduction

This chapter introduces the reader to the background of the study which includes the general overview of issues concerning breast cancer and screening behaviour, research gap, the research problem, objectives of the study, research hypotheses, significance of the study, the scope, and finally, chapter disposition of the study which ends the chapter by outlining how the various chapters of the entire research work were organised.

1.1 Research Background

Breast cancer among women has become one of the global issues today (Breast Cancer Research Foundation, 2014). Indeed it is one of the most common cancers among women worldwide (America Cancer Society, 2015). It has been established in recent times that cancer in general has been killing more people than malaria, tuberculosis (TB) and HIV/AIDS all put together (Center for Disease Control and Prevention, 2014). Again it has been established that, with close to 14 million people who are diagnosed with cancer, about 8 million die from the condition worldwide every year (Center for Disease Control and Prevention, 2014). Also, it has been observed that out of over 55% of new cancer cases that are reported, more than 60% of cancer deaths occur in less-developed countries of the world, with breast cancer becoming the second most diagnosed form of cancer globally (Ferlay, Shin, Bray, Forman, Mathers & Parkins, 2010). Again, it has been established that, the most frequently diagnosed cancer among women in 140 out of 184 countries worldwide is breast cancer (Breast Cancer Research Foundation, 2014). Bray and Møller (2005) state that the worldwide incidence of cancer could increase to as many as 17 million new cases per year by 2020 of which it is estimated that about 1.5 million will occur in Africa.

According to the Breast Cancer Research Foundation (2014), nearly 1.7 million women worldwide were diagnosed with breast cancer in 2012 with incidence rates varying across the world. It further shows that, breast cancer has been identified as the most common cancer in women worldwide and this represents about 12% of all cancer cases among women (Breast Cancer Research Foundation, 2014). For example, in the United Kingdom, research reveals that the most common cancer is breast cancer and that it is growing at an alarming rate (UK Cancer Research, 2014). In the UK, about 49,900 women were diagnosed with breast cancer in 2011, that is, more than 130 women everyday (UK cancer research, 2014). However, this estimation is quite different in the US where breast cancer is second to skin cancer and further estimates that 231,840 new breast cancer cases will be diagnosed in women and about 40,920 will die from it (American Cancer Society, 2015).

In Africa, the burden of cancer is increasing tremendously partly as a result of certain factors such as the population growth and aging (Jemal, Bray, Forman, O'Brien, Ferlay, Center & Parkin, 2012). Other factors are the rising prevalent risk factors, economic transition, physical inactivity and reproductive behaviour of Africans (Jemal et al., 2012). Although the incidence of breast cancer has been reported to be lower in sub-Saharan Africa as compared with western nations, the survival rate in Africa is poor when compared with those in the developed world (Fregene & Newman, 2005; Agarwal et al., 2009). The study shows that, the seriousness attached to cancer in general in Africa is not encouraging partly as a result of limited resources and other health problems such as TB, HIV/AIDS, malaria and others (Jemal et al., 2012). A study on breast cancer in Sub – Saharan Africa, concluded that, there is the likelihood for breast cancer to grow substantially in Africa (Fregene & Newman, 2005), and more so, as a result of adopting western lifestyle and dietary pattern.

In Ghana, it is estimated that 2,062 new breast cancer cases are reported annually, out of which about 1,137 deaths are recorded annually, representing 16.5% of all women cancer deaths (Mena, Wiafe & Sauvaget, 2014). Furthermore, the extant literature establishes that about 60% of the cases of breast cancer in Ghana are detected at late stages where nothing could be done about it (Mena, Wiafe & Sauvaget, 2014; Opoku, Benwell & Yamey, 2012). This is to say that, breast cancer can be rendered to almost complete cure if it is reported at its initial stages (Okobia, Bunker, Okonofua, & Osime, 2006).

Research has revealed that, breast screening is in three categories; self-breast exams, clinical exams and mammogram (Center for Disease Control and Prevention, 2014). However, the most expensive among the methods is mammogram and this is an X-ray of the breast (Oluwatosin, 2012). According to Oluwatosin (2012), mammograms are the best ways to detect breast cancer early before it is big enough to feel or cause symptoms. When breast cancer is detected at the early stage, its management and outcome is certain (American Cancer Society, 2015). It has been reported that when people also become aware and educated on screening tests, they demonstrate high level commitment, confidence and knowledge and eventually tend to put them into practice more than those who have not received any information (Oluwatosin, 2012).

A study by Opoku, Benwell & Yamey (2012) on breast cancer screening practices in Ghana reported a low turnout. Similar to the study in Ghana, several studies have also reported low knowledge of breast cancer and its screening methods in many nations across the world (Mhamdi et al., 2012). It has been discovered that the average age when women diagnose for breast cancer in Ghana is 46.29 years with a range of 18 to 80 years as compared to an average age of over 65 years in Europe and America (Anim, 1993; NCRNM, 2007). Research further shows that, mammograms are usually

used in the developed countries for breast screening and this is contrary to most developing countries where mammograms are found in very few hospitals and not easily accessible to most women (Sambanje & Mafuvadze, 2012). In Ghana, most specialized breast cancer detection centers are located in large cities such as Accra and Kumasi (Ministry of Health, 2001). As a result, most Ghanaian women report late due to the high transportation costs for those living outside the big cities to the centres, coupled with high costs of hospital admission, surgery, radiologic examinations and laboratory (Clegg-Lamprey, Dakubo & Attobra, 2009). The delays in presentation coupled with subsequent prognosis, laziness, lack of time, forgetfulness, fear and lack of confidence among other reasons are given as failure on the part of women to engage in breast examination (Mason & White, 2008; Nafissi, Saghafinia, Motamedi & Akbari 2012; Ghazali, Othman & Cheong, 2013). Contrary to the case of Ghana and Africa in general, research establishes a high degree of knowledge about the methods of breast screening in the developed countries (Anderson, Braun & Lim, 2003).

It has been reported that, breast cancer awareness and screening are low especially in less-developed and developing countries and this has culminated to the high death rates as compared with the industrialized world (Sambanje & Mafuvadze, 2012). This gives a vivid picture that breast cancer menace is not well understood especially in Ghana and as a result there is the need for more education on the grievous repercussions on the society and individuals. Breast cancer still pose a huge threat to people worldwide, especially underdeveloped and developing countries and it is believed that aggressive and consistent education will help to drastically reduce this social canker (WHO, 2011).

It has been observed that many social and health problems have behavioural causes and as a result social marketing offers a unique opportunity to promote behaviours that result in health and well-being improvement of individuals (Mc Dermott et al., 2005).

Social marketing has been defined as the process which applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behavior that benefit society as well as individuals (Kotler & Lee, 2008). Social marketing presents a framework that can be used to define a social marketing campaign (Thompson, 2013). It has been applied successfully to promote or decrease other health related issues like HIV/AIDS (Tweneboah-Koduah, & Owusu-Frimpong, 2013), physical activity (Coreil, Bryant & Henderson, 2005), smoking, diabetes and other issues that have individual and societal benefit (UK Center for Disease Control, 2005). The researcher strongly believes that social marketing has the ability to influence behaviour change.

Again it has been observed that, health interventions and programs are most successful when they are grounded in the appropriate health behaviour change theories (Anderson, 1998). As a result of this, the study settles on social cognitive theory as a framework to identify and explain the factors which are likely to influence breast cancer screening in Ghana. This theory has been adapted for this work because, it has been proven successful in influencing many health related issues (Bandura, 1997) and therefore it is believed that by adapting this theory as a model, the purpose and the objectives of this study would be achieved.

1.2 Research Gaps

A careful observation and analysis of the available literature on breast cancer screening and its influencing factors reveal several and wonderful contributions to the subject both in Ghana and other parts of the world. In Ghana, literature has mainly looked at issues related to the knowledge, attitudes, beliefs, behaviours and breast cancer screening practice in Ghana (Opoku, Benwell, & Yarney, 2012), cost effects and cost effectiveness of breast cancer control in Ghana (Zelle et al., 2012), women's cultural

perceptions and attitudes towards breast cancer (Asobayire & Barley, 2014), factors related to incomplete treatment of breast cancer (Obrist et al., 2014). Despite these valuable contributions made toward breast cancer screening in Ghana, the screening rate is still low in Ghana (Mena, Wiafe & Sauvaget, 2014).

Other literature reveal that most of the studies beyond Ghana concentrated on areas such as the risk of breast cancer following fertility treatment (Reigstad, Larsen & Myklebust, 2015), the need for greater women awareness of warning signs and effective screening methods (Montazeri & Vahdaninia, 2008), knowledge, attitude and practice of women towards breast cancer (Harirchi et al., 2012; Uwuseba, 2010; Sunil et al., 2014), rational for targeting the Ras/MAPK pathway in triple-negative breast cancer (Giltane & Balko, 2014), and breast cancer preventive behaviors (Khazae-Pool, Montazeri & Majlessi, 2014). Other research also focused on breast cancer cause, beliefs and survivors (Gonzalez, Lim & Wang-Letzkus, 2014), breast cancer survivorship and global statistics (Siegal, Ma, Zou & Jemal, 2014), breast cancer screening among women (Munyaradzi, January & Maradzika, 2014; Eguvbe, Akpede & Arua., 2014).

All these literature give wonderful and meaningful insights and contributions to the subject of study. However, there seems to be inadequate information in relation to why most women in Ghana do not screen their breast at all and the irregularities associated with it. The issues discussed suggest that the factors which influence breast screening in Ghana is under researched. None of these work assessed in detail, the environmental and personal factors which facilitate or hinder breast screening exercise in Ghana. Again the social cognitive theory has not been applied to understand these factors in Ghana and this presents gaps related to issue and context which need to be addressed.

1.3 Research Problem

Much of the research on breast cancer screening reveal an invaluable contributions to improve breast cancer screening among women. However, it in revealed that the level of breast cancer screening is limited in many parts of the world (Harirchi et al., 2012; Montazeri et al., 2008). In Ghana, a lot of work has been done in the area of breast cancer screening, however, literature examined show that most women have poor knowledge in breast cancer screening (Ohene-Yeboah & Adjei, 2012). Also, they identify that the practice of breast self-examination was low (Opoku et al., 2012; Somdatta & Bandalyne, 2008). Research further reveals that, early warning signs and effective screening methods were very low and inadequate among women and as a result it has increased the death rate in Ghana (Mena, Wiafe & Sauvaget, 2014). A study on knowledge, beliefs, attitudes, behaviours and breast cancer screening practice in Ghana reported a very poor knowledge of breast cancer and screening methods (Opoku, Benwell & Yarney, 2012).

What is even more serious in Ghana is that, many interventions designed to encourage early detection of breast cancer among women have not yielded much result in reducing breast cancer rate (Opoku et al., 2012). Most women have been seen as not reporting obvious abnormalities early for the necessary treatment (Mena, Wiafe & Sauvaget, 2014). Research reveals that in the developed nations, a lot of breast cancer cases are identified by the patients themselves (Harvey, Miller, Baines & Corey, 1997). However the difference is that they report any changes as early as possible for treatment (Harvey, Miller, Baines & Corey, 1997). What then accounts for late presentation of breast cancer cases in developing countries and for that matter, Ghana? Literature reveal that there are some non-governmental organisations and well-meaning groups which also organise breast programmes to encourage women in Ghana to

increase breast screening and thereby reduce the death rate (Clegg-Lampsey & Hodasi, 2007). In spite of these efforts made to increase breast cancer screening in Ghana, the situation is not any better (Opoku et al., 2012). In Ghana, most women who are diagnosed with breast cancer are within the ages of 40 and 49 (Ohene-Yeboah & Adjei, 2012). However, there is lack of modern health facilities with only few centres in the country (Dzakah, 2010). Ohene-Yeboah & Adjei (2012), also linked the lack of awareness of early signs and screening behavior to the low levels of formal education in Ghana. Other challenges identified in Ghana are the traditional and religious beliefs which influence behavior (Avong, 2000). Cultural beliefs have been reported to influence successful introduction of public health education programmes, while at the same time certain chronic diseases are attributed to supernatural forces in Ghana (Adongo et al., 1997). As a result, Sossou (2011), advocated for women's full participation in cultural and socio-political procedures to breakdown some of these barriers.

A careful observation from literature reviewed shows that, the current research on factors that account for low breast cancer screening in Ghana do not fully explain the issue in detail. There are both internal and external factors which are likely to influence the screening behaviour of these women in Ghana and this has not been addressed adequately. Again, none of these studies really focused on social marketing principles to understand the issue in context. As a result, the study will adapt the social cognitive theory to analyse and test the factors which are likely to influence breast cancer screening in Ghana.

1.4 Research Purpose

The purpose of this research is to test the factors which are likely to influence breast cancer screening behaviour in Ghana.

1.5 Research Objectives

To achieve this purpose the study outlines the following related objectives:

1. To examine the relationship between immediate environmental factors and breast cancer screening behaviour in Ghana.
2. To examine the relationship between the wider external environmental factors and breast cancer screening behaviour in Ghana.
3. To examine the significant relationship between personal characteristics and breast cancer screening behavior in Ghana.

1.6 Research Hypotheses

To achieve the formulated objectives of this research, hypotheses have been designed to serve as a guide to the literature review, information gathering and other aspects of the research activities. In view of that, the researcher has developed the following hypotheses for testing:

- H1: There is a positive relationship between immediate environmental factors and breast cancer screening behaviour.
- H2: There is a positive relationship between wider external environmental factors and breast cancer screening behaviour.
- H3: There is a significant positive relationship between personal characteristics and breast cancer screening behaviour.

1.7 Significance of the Study

The significance of the study can be seen from four perspectives: practice, current research and policy and future research.

From the perspective of significance to practice, the study will provide a useful guideline to especially women in Ghana to increase breast cancer screening. In addition, where to go and what to do if they discover abnormalities in their breast.

In terms of research significance, the study will strengthen the current research on the application of social marketing to health issues especially in the area of breast cancer screening in Ghana. It will therefore respond to the paucity of literature on social marketing and breast cancer screening behaviour amongst women.

Concerning significance to policy, the study will provide strong guidelines to advocacy groups and government Agencies to understand issues relating to breast screening in Ghana in order to enable them formulate effective policies to sensitize women on breast cancer screening. Again, it will provide meaningful guidelines for social marketers trying to design interventions to influence a particular societal or health related problem.

Finally as a descriptive research, the study will also pave way for further research. Consequently, insights gained into the problem may serve as a useful purpose for providing the basis for further research in cognate areas of breast cancer screening.

1.8 Research scope

The scope of this research covers these broad areas as follow:

First of all, the general issues regarding breast cancer and screening behaviour. This work focuses on breast cancer screening as a major problem all over the world especially in the developing and the underdeveloped nations. The low rate of breast cancer screening which has resulted in the increased death rate of the phenomenon in Africa especially, Ghana.

Again, this research also focuses on identifying the factors which are likely to determine or influence breast cancer screening in Ghana. This has been discussed using women at the Madina market, Accra Ghana, to assess their general screening behaviour and the likely factors which influence their behaviour.

Also, this research covers the application of social marketing techniques and principles to influence individual behaviour change. It gives a wider elaboration on the contribution of social marketing to influence different health and societal issues by specifically adapting the social cognitive theory as a model to influence breast cancer screening in Ghana.

Finally as it has been established already, this study focuses on only women from 18years and above since they are more vulnerable and prone to the disease. The scope will only encapsulate breast cancer screening in Ghana and will not cover the treatment of breast cancer.

1.9 Chapter Outline

This thesis is organised into six (6) chapters, the details of which are outlined below:

Chapter One: Introduction

This is the introduction of the research and comprises the research background, research problem, and research purpose, objectives of the study, research questions, research significance, the scope and finally, the chapter organisation of research.

Chapter Two: Literature Review

Chapter two presents a review of relevant literature on social marketing and how it can be helpful to increase breast cancer screening. It also involves using the social cognitive

theory to know how environmental and personal characteristics influence breast cancer screening in Ghana.

Chapter Three: The Context of the Study

The third chapter involves the context of the study which covers brief overview of Ghana and the study area, Madina market, general issues about breast cancer and screening behaviours in Ghana, and finally breast cancer screening statistics at the radiotherapy unit of the Korle-bu Teaching hospital.

Chapter Four: Research Methodology

Chapter four deals with the methodology, research strategy, study population, sampling techniques, data collection instrument and method, data processing and analysis, and ethical considerations.

Chapter Five: Data Presentation and Analysis

Chapter five entails data presentation, discussion and analysis of findings. The data is tabulated and presented in forms that can be easily interpreted whilst testing the factors which are likely to influence breast cancer screening in Ghana.

Chapter Six: Conclusion

This comprises the summary, conclusions, recommendations and implications to research, practice and policy and the future research directions. The references and appendices follow this chapter.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.0 Introduction

It is vital to conduct a study of this nature and its purpose in both theoretical and empirical literature. There is also the need to provide the conceptual framework for the study. Again, a review of theoretical and empirical literature will help position the study and provide a strong background for any empirical contribution this work would have to offer for future research.

Literature review according to Saunders, Lewis & Thornhill (2009), provides the basis on which research is built and its main purpose is to help the researcher develop a good understanding and in-depth knowledge into relevant previous research and trends that have emerged. Again literature clearly shows the need for the researcher to exhibit complete awareness of current state of knowledge in the area of study, how the research fits in terms of wider perspective and the limitations that accompany it (Gill & Johnson, 2002).

On the basis of that, this thesis seeks to identify and understand the factors which are likely to influence behaviour change in the area of breast cancer screening. This chapter therefore reviews literature on the nature of social marketing and the role it plays in influencing behaviour change. Again, it further looks at the various theories judiciously used by social marketers to explain how behaviour change occurs. Finally, the researcher adapts and explains the social cognitive theory as the conceptual framework for this study.

2.1 The Concept of Social Marketing

The term social marketing could be traced back to the 1950's when an American academic, Wiebe (1951), started people thinking when he analysed contemporaneous

social advertising campaigns and asserted that, indeed the ones that looked like the commercial marketing are the best. He concluded that it is possible to ‘sell brotherhood like you sell soap’. As a buildup on that ideology, people started thinking differently and seriously that strategies applied by profit making organisations to influence their target customers might also be used by the non-profit making organisations as well. The term social marketing as a discipline is rooted in commercial marketing and has been applied successfully to the resolution of health and social challenging issues. However, social marketing became known as a discipline in the 1970’s when Kotler & Zaltman (1971) used the term ‘social marketing’ for the first time in their journal of marketing article “social marketing; an approach to planned social change”. Today, the components of social marketing have been added to major domestic and international behaviour change programmes (Debus, 1987; Ramah, 1992; Smith, 1989). In many developing and developed worlds, social marketing concept is expanding greatly and that many social and health issues have been improved through social marketing thinking (Manoff, 1985). Many reformed groups and government have consciously applied social marketing to influence many social issues such as improved nutrition, family planning, alcohol prevention, antismoking, speeding, drug abuse and myriad of issues (Centre for Disease Control, 2005). As a result, it has been identified that social marketing is very effective in influencing voluntary lifestyle of individuals (CDC, 2005; Department of Health, 2004).

2.2 Defining Social Marketing

Social marketing is not a theory in itself, rather it takes its root from many other disciplines such as psychology, sociology, and anthropology and communication theory to understand and influence people’s behavior (Kotler & Zaltman, 1971). It uses the principles and structures of commercial marketing to influence behavioural change

(Kotler & Zaltman, 1971). As a growing discipline many scholars have come up with their own definitions based on their experiences. However the very first and formal definition of social marketing was that given by Kotler & Zaltman (1971). They define social marketing as ‘the design, implementation and control of programmes calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research.’

This first definition was criticised severely by Rangun & Karim, (1991) and argued that it lacked clarity. Again an argument was put forward by Hirschman, (1991) that people could not differentiate between social marketing and societal marketing. Again this definition projects a level of limitation to the objective of influencing the acceptability of social ideas. As a result of the lack of clarity with the original definition, Andersen (1995), shared his own idea and described social marketing as, “the application of commercial marketing technologies to the analysis, planning, execution and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of society.” This definition however projects social marketing as having a strong grounding in marketing and incorporate the marketing mix elements of product, price and promotion. Again it emphasizes on voluntary behaviour change and at the same time, the purpose of achieving socially desirable goals that benefit individuals and the entire society (Niblett, 2005; Kotler & Lee, 2008). Some other recent definitions of social marketing from a few veterans have been captured as follows:

“Social marketing is the application of commercial marketing principles and tools where the primary goal is the public good (Donovan, 2011)”.

“Social marketing critically examines commercial marketing so as to learn from its success and curb its excesses (Hastings, 2011)”.

“Social marketing is the activity and processes for understanding, creating, communicating and delivering a unique and innovative offering to overcome a societal problem (Deshpande & Rundle-Thiele, 2011)”.

“Social marketing is the use of marketing principles and techniques to promote the adoption of behaviour that improve the health or well-being of the target audience or of society as a whole (Weinreich, 2010)”.

“Social Marketing is the systematic application of interactive marketing principles and techniques that harness audience participation to deliver value and achieve specific behavioural goals for a social good (Bernhardt, 2011)”.

It is established that there is no single universally accepted definition of social marketing, and as a result all these definitions contribute significantly to the development of social marketing (Donovan, 2011). However, research postulates that, social marketing has moved on from the early definitions that emphasize on the application of commercial marketing principles to social issues to reflect other concepts and techniques that are not related to marketing (French & Blair-Stevens, 2010). For the purpose of this study which seeks to test the factors which are likely to influence breast cancer screening in Ghana, the researcher followed French & Blair-Stevens (2010) who define social marketing as “the systematic application of marketing alongside other concepts and techniques to achieve specific behavioural goals for social good”.

2.3 Social Marketing Focuses on Behaviour Change

It has been observed that the bottom line of social marketing is to pursue a programme that ultimately leads to behaviour change (Niblett, 2005). The extant literature reveals that communication campaign is not the ultimate goal of social marketing campaign as

seen by people who do not understand the discipline. However, communication becomes instrumental in influencing behaviour change (Niblett, 2005). The sole emphasis on behaviour change makes the field of social marketing unique and distinct from other disciplines (Andreasen, 1993). Kotler & Lee (2008) suggest that social marketing campaigns normally influence the target audience to pursue one or more of the behaviours below:

- To accept a new behaviour such as going for HIV test.
- To reject a potentially undesirable behaviour such as starting smoking.
- To modify a current behaviour such as not eating heavy foods late.
- To abandon an old undesirable behaviour, example sex without condom.

It has been observed that social marketing can also be used to encourage one time behaviour, for instance encouraging people to test for tuberculosis, or to remind the target audience of a behaviour which needs to be repeated, for instance visiting the dentist (Kotler & Lee, 2008). It goes further to establish that even though behaviour change is the ultimate aim, the emphasis of social marketing is basically to reward a good behaviour rather than punishing the bad ones through legitimate or any other means. However, research establishes that if unexpected things happen that motivate negative behavior, certain behavioural controls could be adopted to influence a change (French & Blair Stevens, 2010). In order to materialize that, it becomes the responsibility of the social marketers to provide an enabling environment to facilitate the desired behaviour change. Behavior change as a focus also calls for social marketers to fully understand and appreciate the characteristics and attitude of the target group which they seek to influence (Morris & Clarkson, 2009). The purpose of

knowing the characteristics of the audience is for the social marketer to know at a glance the strategies to implement to result in behaviour change.

2.4 Effectiveness of Social Marketing to Behaviour Change

The Centre for Disease Control and Prevention (2012) encourages the use of social marketing principles in public health interventions to increase campaign effectiveness. Other literature reveal that social marketing impacts voluntary health-related behavior by applying marketing together with other principles to change attitude, increase knowledge and motivate individual or societal change to improve personal as well as societal benefit (Andresen, 1995; Glassman & Braun, 2010). By this, social marketers must design and offer programme benefits or reduce barriers that discourage behaviour change (Glanz, Rimer & Viswanath, 2008).

Literature has established that social marketing provides an effective framework for behaviour change campaigns and a powerful tool for organizations that are trying to change health behaviour (Stead et al., 2007). The extant literature examined health campaigns that adopted social marketing as the core strategy and found it to be a very effective tool in influencing policy as well as professional practices. They went further to define social marketing intervention, as those campaigns which adopt social marketing principles in their development and implementation (Stead et al., 2007).

2.5 Interventions Addressed Using Social Marketing

Research has identified that the application of social marketing for a range of interventions seems to be rising all over the world (Boyle & Proctor, 2009; Domegan, 2008; O'Shaughnessy, 1996) and that the growing benefits and the widening spectrum of the discipline has also become evident in academic research (Kotler & Zaltman, 1971; Leonard, Spotswood, & Tapp, 2012; McDermot, Stead, & Hastings, 2005) and

policy and practice contexts (Lee & Miller, 2012; Samad, Nwankwo, & Gbadamosi, 2010).

At the early stages of the conceptualization of social marketing, its successful application was in the area of family planning programme and other programmes aimed at controlling diseases Manoff (1985). The technique of social marketing and its thinking has spread worldwide and in several countries has become the centre of health improvement. In Canada, social marketing has been advocated to be included in the national health programmes (Mintz, 2005) and this is not different in America, where the idea of social marketing has been endorsed to be part of the new America 2020 health strategy (AASM, 2012). Again in the UK, the development of social marketing strategies as the core for national campaigns between 2004-2009 are evident (French & Mayo, 2006), and then in France social marketing is the major principle in the French Epode program (AASM, 2012), which is similar to that of the Netherlands, JOGG programme and finally the new WHO Europe health 2020 programme (AASM, 2012). For example, social marketing is consistently been advocated for as a core health strategy in the US to influence voluntary lifestyle behaviour including smoking, drinking, drug use and diet (Centre for Disease Control, 2005). Again, both US Department of Agriculture (USDA), US Department of Health and Human Services (USDHHS) and other organisations have used social marketing to promote the prevention of obesity, physical activity, decrease fat consumption, breast feeding and other health behaviours that are preventive (Coreil, Bryant & Henderson, 2000). Taking other examples, the white paper that contributes to public health awareness and behaviour change in the UK has endorsed the use of social marketing (Department of Health, 2004) and this has been used successfully to improve health and reduce health inequalities (NCC and DH, 2005).

In other geographical locations, the concept of social marketing has been used successfully to improve access to portable water (Mong, Kaiser, Ibrahim, Rasoatiana Razifimbololona & Quick, 2001), eradicate leprosy (Williams, 1999), increase tuberculosis medicine adherence (Marks & Greathead, 1994), promote immunizations and universal iodization legislature (Donovan & Henley, 2003; Jooste, Marks & van Erkom Schurink, 1995) and HIV/AIDS and condom use (Tweneboah-Kodua, 2014; Harvey, 1999). This leads to the discussions of the interventions mix use by social marketers.

2.6 Social marketing intervention mix

When the concept of social marketing was developed as a discipline in the 1970s, researchers like Kotler & Zaltman (1971) discovered that there are some similarities in that, the same marketing principles that were used in commercial marketing could be used to sell ideas, behaviours and attitude. This idea explains the rationale behind different definitions given by different writers that show the adoption and adaptation of commercial marketing principles and techniques for social good (Dann, 2010). The social marketing intervention mix is a framework that can be used to define social marketing campaign and according to Thompson (2013), these core tools of marketing are manipulated carefully to produce the most effective mix. Social marketers seek to effectively combine the intervention mix variables to offer something valuable to the target audience and this is the one that comes closest to satisfying consumer needs (Cannon, 1992; Kotler, Armstrong, Saunders & Wong, 1999). The marketing mix which is popularly known as the 4Ps of marketing- product, price, place and promotion- have been adopted to fit social marketing practices and are used somewhat differently from commercial marketing.

When used in social marketing campaigns, **product** refers to the behaviour social marketers want the target audience to adopt or avoid (Kotler & Zaltman, 1971), and may range from physical product (condoms), services (medical exams), practices (breast feeding or examination) and even more intangible (environmental protection). **Price** refers to the financial or any other sacrifice the target audience must give up in order to benefit from the behaviour being promoted. Kotler & Zaltman (1971) suggest that price in social marketing could be monetary or in most cases intangibles such as: time, effort, embarrassment and others. In setting price for social campaigns, research suggest that the costs should not outweigh the perceived benefits of engaging in that behaviour (Rungan, Karim & Sandberg, 1996).

The **place** element refers to the various channels which deliver the products or programmes, or easily make the product accessible (Kotler & Zaltman, 1971). For a tangible product, it refers to the distribution systems which are not different from that of commercial marketing, such as the retail outlet, warehouse, salesforce and others. For an intangible products, it refers to the exact places where the service are delivered such as the doctor's office, mass media vehicles and others. In both situations, the distribution variable covers timing, cost, coverage, transportation, location and accessibility (Cowell, 1994; Woodruffe, 1995). The final element of the intervention mix is **promotion**. This consists of the integrated use of advertising, media advocacy, public relations, personal selling, entertainment vehicles, social media and other technologies such as the media to communicate the impulse of the campaign. In all of this, research becomes crucial in determining the most efficient and effective way to blend these variables to achieve social goal (Cowell, 1994).

Social marketing has its own variables that are used in campaigns to support the traditional marketing mix making it 8P's instead of the traditional 4P's, according to Kotler & Lee (2008) and these are:

Publics: these refer to the internal and external groups involved in the campaign. This is because social marketers have different audience their message targets. These are called the stakeholders in social marketing campaigns.

Partnership: these are organizations within the community that have similar goals and can team up with the social marketer to bring the needed change. Because behaviour change is so complex and one organisation cannot solve complex social issues alone, forming alliances with others become the best way to achieve the set goals.

Policy: sometimes social campaigns need policy change to support and sustain behaviour change for a long time. This is achieved by moving upstream to alter the environmental changes which in turn will motivate individuals to change their behaviour.

Purse strings: this includes donations, funds, governmental grants and others that come in to help social marketers to start off. This is because social marketers are not profit makers and therefore will need to depend on the funds from these sources for their campaigns.

2.7 Upstream and Downstream Social Marketing

Since the mid-90s, scholars have suggested that social marketing scope should be broadened beyond individuals, or group of target audience, and attempt to influence those in the position to shape the determinant of human behaviour (Goldberg, 1995; Andreasen, 2006). As a result of this, literature categorize behaviour change

interventions on a continuum from downstream to upstream social marketing intervention approaches (McKinlay, 1975, 1993; Verplanken & Wood, 2006). The extant literature explain that downstream approach focuses on exhorting behaviour change through information campaign.

Downstream approach focuses on trying to influence behaviour change among people who already exhibit a significant risk factors. The interventions at the downstream level attempt to influence the decisions of individuals who are at risk (Verplanken & Wood, 2006). Again, Ruiters, Abraham & Kok (2001), have put forward that it is necessary to target and inform individuals about potential health risks in order to facilitate health behaviour change. Changing behaviour at the downstream demands the provision of the necessary information to the target audience for decision making. However research shows that since downstream focuses on the micro level factors, it is paramount to tackle the motivation, skills and knowledge of individuals (Fisher, Fisher, Amico, & Harman, 2006; Fisher, Fisher, Bryan & Misovich, 2002).

The second approach, upstream marketing on the other hand attempts to bring about desired individual behaviour change, often without the conscious cooperation of individuals (Wilkinson & Marmot, 2006). There is a widespread believe that engaging in upstream marketing is as important as downstream interventions (Verplanken & Wood, 2006). The literature further asserts that upstream social marketing interventions focus on influencing the environment in which that particular behaviour is demonstrated (Verplanken & Wood, 2006). The upstream interventions focus on social norms and environmental supports which facilitate desired behaviour change. These factors are also known as the macro factors and comprise of social structural influences on health and health systems, government policies and the social, physical, economic

and environmental factors that are beyond the control of individuals (Oliver, 2005; Andreasen 2006; Goldberg, 1995).

Upstream intervention proposes that influencing these factors can help address societal problems and that the upstream represents target audience with different interventions (Hoek & Jones, 2011). There is a strong evidence that upstream social marketing has been instrumental in influencing smoking, bans on tobacco and marketing of smoke free legislation (Pollay, 2004). Undoubtedly, upstream interventions provide social marketers with possibilities to influence behaviour of those that shape the environment in which much of the behavioural challenges faced by societies operate (Gordon, 2013). This leads to behaviour change theories applied in social marketing.

2.8 Behaviour Change Theories

According to literature, theory application to the design and implementation of complex behaviour change is necessary and effective (Glanz & Rimer, 1995; Medical Research Council, 2008). Although is observed that not all interventions make use of theories in influencing behaviour change (Albarracin et al., 2005; Davies, Walker, & Grimshaw, 2010; Hardeman, Johnston, Johnston, Bonetti, Wareham, & Kinmonth, 2002; Molloy, 2010), research reveals that there is an evidence for the increasing trends of applying theories to many interventions (Noar, Palmgreen, Chabot, Dobransky, & Zimmerman, 2009). It is evident from literature that when it comes to larger intervention effects, the use of theories by social marketers to inform the development of behaviour change intervention is paramount to the success of that intervention (Albada, Ausems, Bensing, & van Dulsem, 2009; Ammerman, Lindquist, Lohr, & Hersey, 2002; Fisher & Fisher, 2000; Glanz & Bishop, 2010; Swann et al., 2003; Taylor, Conner, & Lawton, 2012; Webb, Joseph, Yardley, & Michie, 2010).

In designing interventions to yield positive behaviour change, research depicts that social marketers should understand behaviour change theories and develop special abilities on how to use them ((Glanz, Lewis, & Rimers, 1990). Theories and models social marketers apply are many and there is little formal consensus as to the type of theory to use for specific social problem and the situations that are appropriate (Lefebvre, 2000). In furtherance of this, the following have been identified as some of the major theories used by social marketers to influence behaviour change:

2.8.1 Health Belief Model:

This is one of the most frequently used theories among public health practitioners and has been adopted by social marketers to influence behaviour change (Strecher & Rosenstock, 1997). The theory was originally designed to explain the rationale behind people neglecting programmes aimed at preventing or detecting diseases and attempts to explain the conditions that are necessary for behaviour change to occur (Strecher & Rosenstock, 1997). The extant literature also reveals a variety of demographic, social, psychological and structural variables that may impact on individual's perceptions and health related behaviors. Reviewing this model across numerous health and screening behaviours such as using seat belt, physical activity and others found substantial contribution it has made (Janz & Becker, 1984). The core components of the health belief model include the following:

- Perceived susceptibility: this is where the individual sees himself as susceptible or vulnerable to a particular health situation.
- Perceived severity: the feelings about the severity of the consequences of a specific problem.

- Perceived benefits: the belief that engaging in the preventive behaviour offers advantage over the current behaviour and these benefits might reduce the threats or susceptibility and severity.
- Perceived barriers: the belief about the potential negative aspect of taking specific action.
- Cues to action: this refers to the bodily or environmental actions that stimulate action.
- Self-efficacy: the self-belief to take action.

2.8.2 The theory of reasoned action

This theory was developed by Ajzen (1991), and organises itself around the constructs of behavioral and normative beliefs, attitudes and intentions and behaviour. According to the theory, the most significant determinant of behaviour is the intention to perform that behaviour and behavioural intention is in turn influenced by three important factors:

- Attitude toward the behaviour: this can be measured in terms of a belief about both the outcome and attributes associated with the behaviour and its relative importance.
- Subjective norms associated with the behaviour: this measures the personal assessment of a person's feelings as to the extent of how other relevant people in his life would think of the action as being reflected upon, that is whether they would look favourably or unfavourably on the expected action.

- Perceived behavioural control: this is simply the perception of individuals in relation to the strength of external factors that make it easier or challenging to carry out the behaviour.

2.8.3 Trans-theoretical model or stage of change theory

According to the basic idea of this theory, individuals do not make and carry through decisions, especially complex behavioural ones, in a simple binary fashion (Prochaska & DiClemente, 1983). They suggest that individuals move through stages on their way of adopting a new behaviour or changing their old behaviour. The model has undergone considerable field testing since 1983, including smoking cessation, condom use, quitting cocaine and others (Prochaska & Velicer, 1997). It suggests five stages of behaviour change as follows:

- Pre-contemplation: this is the first stage where the individual may be aware of the new behaviour but not interested in it, at least at this point in the person's life.
- Contemplation: at this stage the person begins to consciously evaluate the personal relevance of the new behaviour.
- Preparation: the stage where the individual decides to act and tries to put in place the necessary measures needed to carry out the new behaviour.
- Action: the individual performs the behaviour once and determines whether it was worthwhile or not.
- Confirmation or maintenance: the final stage where the individual is committed to the behaviour and has no desire or intention to regress.

2.8.4 Diffusion of Innovation

This is another most powerful theory used to influence the behaviour of large groups of people (Kotler & Roberto, 1989). The extant literature shows the application of this theory to social marketing programmes. The theory states that for a particular innovation, individuals may fall into one of the segments which is represented in certain proportions, based on when the person accepts the new behaviour (Rogers, 1983). These segments differ with respect to communication patterns, demographics and other variables. The five adopter segments include the following:

- Innovator (2.5%): they constitute the least percentage and have the need for novelty and to be different.
- Early Adopter (13.5%): they recognize the importance of adoption from contact with innovators.
- Early Majority (34%): this group have the need to imitate or match up with others with a certain amount of deliberateness.
- Late Majority (34%): this category of people have the need to join the bandwagon when they see that the early majority has legitimated the change.
- Laggard (16%): in every innovation, this group of people are the last to try a new product. They are more reluctant and will always try only after other groups have tried and probably the product is at the saturated stage of its life.

The other aspect of this theory involves the determinant of speed of diffusion and the extent of the innovation (Oldenburg, Hardcastle & Kok, 1997). An individual's decision to accept or reject an innovation is determined by factors such as:

- Relative advantage: whether the new behaviour is better, easier, and simpler than what they currently do.
- Compatibility: the extent to which the new behaviour is consistent with the audience's lifestyle, cultural/ethnic beliefs, practices and self-image.
- Trial ability: it measures whether the new behaviour can be tried before making a final commitment.
- Communicability: it determines how a behaviour could be understood clearly and easily.
- Risk: this measures whether the behaviour could be adopted with minimal risk and uncertainty.

This theory uses opinion leaders and peer-to-peer influence in most cases to disseminate information about new ideas or behaviour change to the target audience (Rogers, 1983).

2.8.5 Exchange theory

Marketing attempts to influence individual voluntary behaviour by offering benefits or incentive in an environment that welcomes voluntary exchange (Rothschild, 1999). The exchange theory encourages individuals to act in ways that give them the greatest benefits for the least cost (Bagozzi, 1978). This theory is grounded in psychology and economics and reveals that, in order for individuals to increase their readiness to change, social marketers should offer them with something beneficial in an exchange (Houston, & Gassenheimer, 1987). Exchange involves the transfer of tangible or intangible things between two or more social actors (Bagozzi, 1979). The theory further postulates that individuals are likely to adopt a new behaviour if they become aware

that the perceived benefits of the new behaviour far outweighs the perceived costs associated with it (Maibach, 1993). Kotler (2000) also reveals that for an exchange to occur, five important prerequisites are needed to be fulfilled.

- There should be at least two parties.
- Each party should have something that might be of value to the other party.
- Each party is capable of communication and delivery.
- Each party is free to accept or reject the offer.
- Each party believes it is appropriate or desirable to deal with the other party.

2.8.6 Social cognitive theory

The social cognitive theory provides a comprehensive view of explaining human behaviour (Baranowski, Perry & Parcel, 1997). This theory of behaviour change postulates that human behaviour is reciprocally determined by internal personal factors and environmental factors (Bandura, 1986, 1997; Maibach & Cotton, 1995). It recognizes the two-way relationship that exist between personal and environmental factors. That is the environment shape people's behaviour, and the people in turn shape their environment through their behaviour and expectations (Maibach & Cotton, 1995). The theory views the environment as not just one that reinforces or punishes behaviours but also one that provides the platform where people can watch others perform the same behaviour and learn from the consequences of those behaviours (Bandura, 1986; MacFadyen, Hastings, MacKintosh & Lowry, 1998).

According to Bandura (2011), there are two classes of broadly grouping the environmental factors. There are those factors that are close to the individual and have direct influence on their behaviour change and this is termed the micro or immediate

environment. They include the influence of the family, friends, neighbours and peer network (MacFadyen et al., 1998). These factors are likened to subjective norms in the theory of reasoned action (Janzen & Haire 1991).

However the second group of factors are those that are more indirect to behaviour change and are wider and external and may influence other factors as well (Bandura, 1991; McFadyen et al., 1998). These factors have been identified to be physical or structural issues, social and cultural, political and legal and economic factors (Baker, 2002; Jobber, 2003; Kotler & Armstrong, 2004; Wilson & Gilligan, 2005).

The final level of behavioural influence is that of personal characteristics. The personal factors comprise of the attitudes, beliefs, knowledge, needs, skills and self-efficacy (Bandura, 1986). Research indicates that in most cases, putting blames on individuals for not changing their behaviour when structural changes to motivate individuals have not been made does not make sense (Hastings, MacFadyen & Anderson, 2000). Therefore research expresses the need to focus attention on the upstream factors of behavior change (Andreasen, 2006).

Wilkinson and Marmot (2003) argued that individuals should not be left with the whole responsibility of their behaviour. Hollingworth et al, (2006) also calculate that focusing on the environmental influence will help to reduce certain social problems. Smith (1998) argued that individual behaviour change can only be made easier if social marketers resort to considering the environmental influence first, when all possible structural changes have been adopted. Stokols (1996) advocates that both individual and environmental factors complement each other and therefore, there must be an interplay between the environment and the individual. In an attempt to change

behaviour, social marketers must have an accurate analysis of the complex environment in which the campaign appears.

Kotler (2000) admonishes that the purpose of this environmental analysis is to understand and monitor the environmental factors and be able to predict the impact on the behaviour change. The extant literature reveals that, any environmental analysis must consider the current as well as the future trends and development that may have adverse effect on behaviour. It goes on to establish that these factors may passively or actively inhibit desirable social change.

2.9 Key Elements of Behaviour Change Models.

It is worthwhile to understand the variables that are essential to behaviour change models. Below provides a summary of the list of the variables common to these models when attempting to evoke a behaviour change, adapted from Witte (1997).

Threat: The theories project a danger or a harmful event of which people may or may not be aware. Raising awareness that the threat exists and focusing on severity and susceptibility of audience is paramount.

Fear: Emotional arousal caused by perceiving a significant and personally relevant threat. Fear can powerfully influence behaviour and, if it is channelled in the appropriate way, can motivate people to seek information, but it can also cause people to deny they are at-risk.

Response Efficacy: It is the perception that a recommended response will prevent the threat from happening. Provision of evidence of examples that the recommended response will avert the threat.

Self-Efficacy: An individual's perception of or confidence in their ability to perform a recommended response. The individuals' confidence can be raised to respond positively and help to ensure they can avert the threat.

Barriers: Something that would prevent an individual from carrying out a recommended response. These barriers exist in the form of physical, cultural or any other however, an attempt should be made to remove or reduce those barriers.

Benefits: These are the Positive consequences of performing a recommended response. Communicating the benefits of performing the recommended response is vital.

Subjective Norms: What an individual thinks other people think they should do. Understand with whom individuals are likely to comply.

Attitudes: An individual's evaluation or beliefs about a recommended response. Measure existing attitudes before attempting to change them.

Intentions: An individual's plans to carry out the recommended response. Determine if intentions are genuine or proxies for actual behaviour.

Cues to Action: External or internal factors that help individuals make decisions about a response. Effective communication should be provided to trigger individuals to make decisions.

Reactance: When an individual reacts against a recommended response. Make sure individuals do not feel they have been manipulated or are unable to avert the threat.

2.10 Health Issues and their influences

Some health related issues and the factors which influenced them are discussed here below:

2.10.1 HIV/AIDS

An extensive review of the literature on theories and AIDS campaigns, Freimuth (1992) concludes that, knowledge is not a sufficient condition for behaviour change. The literature reveals a close relationship between changes in knowledge and change in behavior (Yoder, 1997). The same literature reveals that in the new era of HIV/AIDS prevention and care, cultural issues should be regarded a crucial factor. Based on this, Michael-Johnson & Bowen (1992) define culture as a “set of beliefs, values and individual goals that pattern behaviour”. Cultural factors are central in organizing concept in developing programs for HIV education and assessing their outcomes. In an attempt to explain culture, Bird (1996) includes media as part of culture which carries huge influence on how people respond to messages. However both personal factors and environmental factors were seen as catalyst for HIV/AIDS campaigns.

2.10.2 Physical Activity

A campaign on the factors which influence physical activity places emphasis on the social and physical environment and reveal a lot of internal and external influences (Giles-Corti & Donovan, 2002; Carnegie et al., 2002). The literature revealed that personal characteristics as well as the environment play major influence in physical activity. Exercise habits by individuals were influenced by social status and environmental context (McCormack et al., 2004; McNeil et al., 2006; Perula et al., 1998). Social class of the individual and the socio-economic characteristics of the geographic area were identified as influential factors (Giles-Corti & Donovan, 2002; Pascual et al., 2005). The extant literature stated that, the physical environment such as the existence of physical accessibility to centers, gyms, swimming pools, safety and attractiveness of neighborhoods and local areas are all influences of physical activity. Finally, people’s negative attitude, perceptions and opinion toward exercise coupled

with their lack of knowledge determine the extent to which people engage in physical activity (Varo-Cenarruzabeitia et al., 2003; Rutten et al., 2001).

Another study revealed physical activity as multidimensional and complex (Dishman, Sallis & Orenstein, 1985). Factors that influence physical activity have been categorized as facilitators or barriers and impediment for individual participation (Sallis & Owen, 1997). According to literature (Sallis, Prochaska & Taylor, 2000; Buckworth & Dishman, 2002), these factors are broadly grouped as follows: demographic and biological factors, psychological, cognitive and emotional factors, behavioural attributes and skill, social and cultural factors, physical environment factors and, physical activity characteristics. Demographic and biological factors are age, ethnicity, gender, income, socioeconomic status, marital status, ethnicity and body mass index (Sjöström et al., 2006; Santos et al., 2008).

The psychological, cognitive, and emotional factors were attitudes, barriers to exercise, control over exercise, enjoyment over exercise, expected benefits, health locus of control, intention to exercise, knowledge of health and exercise, lack of time, mood disturbance, normative beliefs, perceived health or fitness, personality variables, body image, psychological health, self-efficacy, self-motivation, stage of change, stress, and value of exercise outcomes (Sallis & Owen, 1999; Muntner et al., 2005). Behavioural attributes and skills were the activity history during childhood/youth, activity history during adulthood, alcohol, contemporary exercise programme, dietary habits, past exercise program, process of change, school sports, and skilled for coping with barriers.

Social and cultural factors were classified to be class size, exercise models, group cohesion, past family influences, physical influence, social isolation, and social support from friend/family. Physical environmental factors were the actual access to facilities, perceived access to facilities, adequate lighting, climate/season, and cost of

programmes, disruptions in routine, enjoyable scenery, heavy traffic, home equipment, high crime rates in the region, hilly terrain, neighbourhood safety, presence of sidewalks, satisfaction with facilities and urban location (Santos et al., 2008; Sallis & Owen, 1999).

Finally physical activity characteristics such as activity intensity, type and perceived effort, these influenced physical activity among adults. It was concluded that the factors which influenced physical activity are numerous and that immediate and wider environmental factors together with personal factors combined to determine physical activity (Caspersen, Nixon & Durant, 1998; Trost et al., 2002).

2.10.3 Social Cognitive Theory and Obesity

Research into obesity adapting the social cognitive framework concluded that there are multiple factors such as genetic, environmental, cultural and socio-economic status influence how people respond to corporal weight (Fernandez-Alvira et al., 2013; Puhl & Heuer, 2009; Rey-Lopez et al., 2008; Haug et al., 2009; Van der Horst et al., 2007; Franzini et al., 2009). Research focused on child and adolescent obesity reveals individual factors such as gender, socio-economic position, physical activity and sleep duration acting as influence to behaviour change (Rey-Lopez et al., 2008; Haug et al., 2009; Singh et al., 2010). Evidence suggested that environmental and family factors influenced adopted habits especially in children (Van der Horst et al., 2007; Bolivar et al., 2010; Nelson et al., 2006; Feng et al., 2010). Finally, the neighbourhood environment creates opportunities and barriers for obesogenic behaviours and facility availability (Bodor et al., 2008; Tappe et al., 2013). The three major constructs of the theory were fully analysed and was concluded that all the factors contributed significantly to behaviour change (Franzini et al., 2009; Bolivar et al., 2010).

2.10.4 Social cognitive theory and adolescent eating behaviour

Another campaign analysed was using the social cognitive theory as a framework to explain the multiple socio-environmental and personal factors that interact to influence individual eating behaviour patterns (Glanz & Rimer, 1995; Baranowski et al., 2000).

The results proved positive and the influences were identified as follows:

At the individual level of influence, Story et al, (2002) identified that, individual preferences and perceptions of food have strong influence on food selection (Birch, 1999; Baranowski et al., 2000; Birch & Fisher, 1998; French et al., 1999; Horacek & Betts, 1998). Again, the perceived self-efficacy for healthful eating was seen to have greater influence (French et al., 1999; Gracey et al., 1996). A person's knowledge was discovered to be helpful in adopting healthful eating behaviour (Contento, Manning & Shannon, 1992). The general lifestyle in relation to perceived time constraints and convenience strongly impacted on adolescent food choices (French et al., 1999; Neumark-Sztainer et al., 1999). Again it is noticed that taste has greater influence followed by cost when it comes to food selection (Glanz et al., 1998). The reason being that most adults are price sensitive (Glanz et al., 1998; French et al., 1999).

At the micro level, the family was seen as the first and the most influential factor followed by the peers, Story et al, (2002). This is so because the family is the provider of food and also influences food attitudes, preferences and values. Adolescence are marked with the influence of peers and conformity of groups (Steinburg, 1996). Peers are seen as exerting major influences on adolescent behavior (Neumark-Sztainer et al., 1999; French et al., 1999). The extant literature mark that, peer influence may be direct or indirect.

Story et al, (2002) in their work concluded that, factors within the larger society can invariably affect adolescent eating behaviour. These factors included the media,

cultural norms, social norm and production and distribution food systems and their availability. The focus of their work did not reflect much on the macro factors. However media influence was taken into account and was seen as posing a strong influence on food choices (Roberts et al., 1999).

2.10.5 Social cognitive theory and smoking

A work done by Cunningham (2011) on social cognitive theory and smoking assessed the factors that might influence people's smoking behaviour and identified ten (10) strong factors that are interconnected as follow: 1. Peer Pressure 2. Social Rewards 3. Risk-taking Behaviour 4. Parental Influence 5. Misinformation 6. Genetic Predisposition 7. Advertising 8. Self-medication 9. Media Influence 10. Stress Relief. It was concluded that both personal and immediate influences were very vital in determining the smoking habit of people.

2.11 Media influence on behaviour change

A work done by Kotler & Lee (2008) observed that, mass media promises the ability to disseminate well defined behavioural focused messages to large audiences repeatedly over a time, on an incidental manner, and at a low cost per head. The literature reveals that multiple method of disseminating information might be used in the cases of health campaigns. According to Hornik & Yanovitzky (2003), media influence can be direct or indirect to the individual in the pathway to behaviour change. They further state the media may influence individuals directly by invoking cognitive and emotional responses. This can result in reduction or removal of obstacles leading to change which can help people to adopt healthy or recognize unhealthy social practices and to associate valued emotions with change achievement (Kotler & Lee, 2008). However Fishbein & Azjen (2010) argue that media changes strengthen intentions to effect changes that have the potential to result in new behaviour.

It has also been identified that behaviour change can be achieved through indirect media influence (Farquhar, 1978). Mass media messages can set an agenda for and increase the frequency, depth or both, of inflaming an interpersonal discussion about a particular health issue within the context of an individual social network. Again, media messages reach large audience and therefore changes within an individual's social network might influence the person's decision without them directly exposed to the message (Fortmann et al., 1986). Finally, media discussions about a particular health issue may lead to changes in public policy which inevitably may lead to removal of barriers of individual behaviour change (Durkin, Biener & Wakefi, 2009; Farrelly et al., 2009).

Furthermore, research on media influence on tobacco usage found media messages contributing significantly to reductions in tobacco usage (National Cancer Institute, 2008). It was concluded that media activities and messages contribute greatly to behaviour change (Wakefi, 2008; Sly, Arheart & Dietz et al., 2005; Niederdeppe, Farrelly, Hersey, & Davis, 2008).

2.12 Personal factors and behaviour change

This section examines the role of knowledge, skills and self-efficacy in behaviour change.

2.12.1 The Role of Knowledge in behaviour change

Bandura (1994) reveals that when it comes to health education campaigns, reliance on persuasive communications is the best and most effective way to encourage people. In such health messages, emphasizing on fear appeals that show the ravage of disease are used to motivate people and recommended preventive practices are provided as guides for action. Knowledge is prerequisite in an attempt to influencing people about the potential dangers associated with health issues (Niederdeppe et al., 2008). Sound

information on health issues must be provided to guide people on how to regulate their behaviour and firm belief about themselves. In the most effective manner, health communications should instil in people the belief that they have the capability to change their health habits and should instruct them on how to do it. As a result, research states that knowledge on health issues empower people to adopt a particular health behaviour (Bandura, 1994, 1997).

2.12.2 The Role of Individual Skills and Modelling in Behaviour Change

Bandura (1994) stipulates that, convincing people to change their risky behaviour is not enough. People may have a high level of knowledge about a particular health issue yet, they may choose to continue such risky health practices. It is also been observed that people need guidance on how to translate their concerns into efficacious actions (Bandura, 1997). According to Bandura (1997), the ability to learn by social modelling provides highly effective method for increasing human knowledge and skills. Modelling has a special dynamic power of simultaneously transmitting knowledge and valuable skills to large numbers of people. Modelling influences should be designed to build self-assurance and convey strategies for how to resolve risky practices. It is true that the influence of modelling on beliefs about one's capabilities depends on comparisons with others. Bandura (1986) pushes strongly that to increase the impact of modelling, the characteristics of models such as the age, sex, status, the type of problem and the situation in which they apply the skills should be made to appear similar to the people's own circumstances.

It is observed that knowledge and heightened awareness of health risks are important preconditions for self-directed change (Bandura, 1997). However the truth is that, information alone does not necessarily exert much influence on health impairing habits (Farrelly et al., 2009). To achieve a self-directed change, it requires that people need to

be given reasons to alter risky behaviour and also the behavioural means and be given resources and social supports to do so (Bandura, 1994). Effective self-regulation of behaviour is not achieved by an act of will, however, it requires certain skills in self-motivation and self-guidance (Bandura, 1986). Strong belief in one's efficacy to exercise personal control is crucial to determine success in applying self-regulative skills (Farrelly et al., 2009).

2.12.3 The Role of Self- Efficacy in Behaviour Change

According to Bandura (1997), perceived self-efficacy is concerned with people's belief that they can exert control over their own motivation, thought process, emotional states and patterns of behaviour. Literature on self-efficacy reveals that, people's belief about their capabilities affect what they choose to do, how much effort they mobilize, how long they will persevere in the face of difficulties and whether they engage in self-encouraging thought patterns (DiIori, Dudley, Watkins & Maibach, 2000; Grembowski et al., 1993). It is observed that when people lack a sense of self-efficacy, they do not manage situations effectively even though they know what to do and possess the required skills (Floyd et al., 1993). Numerous studies conducted to link perceived self-efficacy to health promoting and impairing behaviour such as smoking, exercise, weight control, HIV prevention and diabetes show that, perceived self-efficacy can affect every aspect of personal change (DiIorio, Faherty, & Manteuffel, 1992; Floyd et al., 1993; Gecht, Connell, Sinacore, Prohaska, 1996; Grembowski et al., 1993; King, Marcus, Pinto, Emmons, & Abrams, 1996; Strecher, DeVellis, Becker, & Rosenstock, 1986; DiIorio et al., 2000).

2.13 The Conceptual Framework

2.13.1 Introduction

Following the background of theoretical and empirical foundations underpinning this study on social marketing: the use of social cognitive theory to influence breast cancer screening, the researcher adapts the social cognitive theory as conceptual framework, which focuses on factors or antecedents that are likely to result in behaviour change as identified by Bandura (1986).

A framework according to the researcher can be referred to as a model, which is simply a diagrammatical representation of ideas, constructs, or concepts put together. As Ostrom (2005) posited, the use of frameworks in research allows the identification of the elements and the specification of the relationships amongst these elements that the researcher needs to consider for prescriptive analysis. Some of the well-known theories used by social marketers to influence behaviour change have already been highlighted above. However, for the purpose of this work, the researcher believes that by adapting the social cognitive theory as a framework, it will satisfy the objectives and the purpose of this work.

Therefore, the conceptual framework for this study identified key environmental and personal factors that may be considered in an attempt to influence people to change their behaviour in relation to breast cancer screening in Ghana using the situation at Madina market, Accra, as the context of study. The conceptual framework adapted for this work is presented diagrammatically in **figure 2.1**

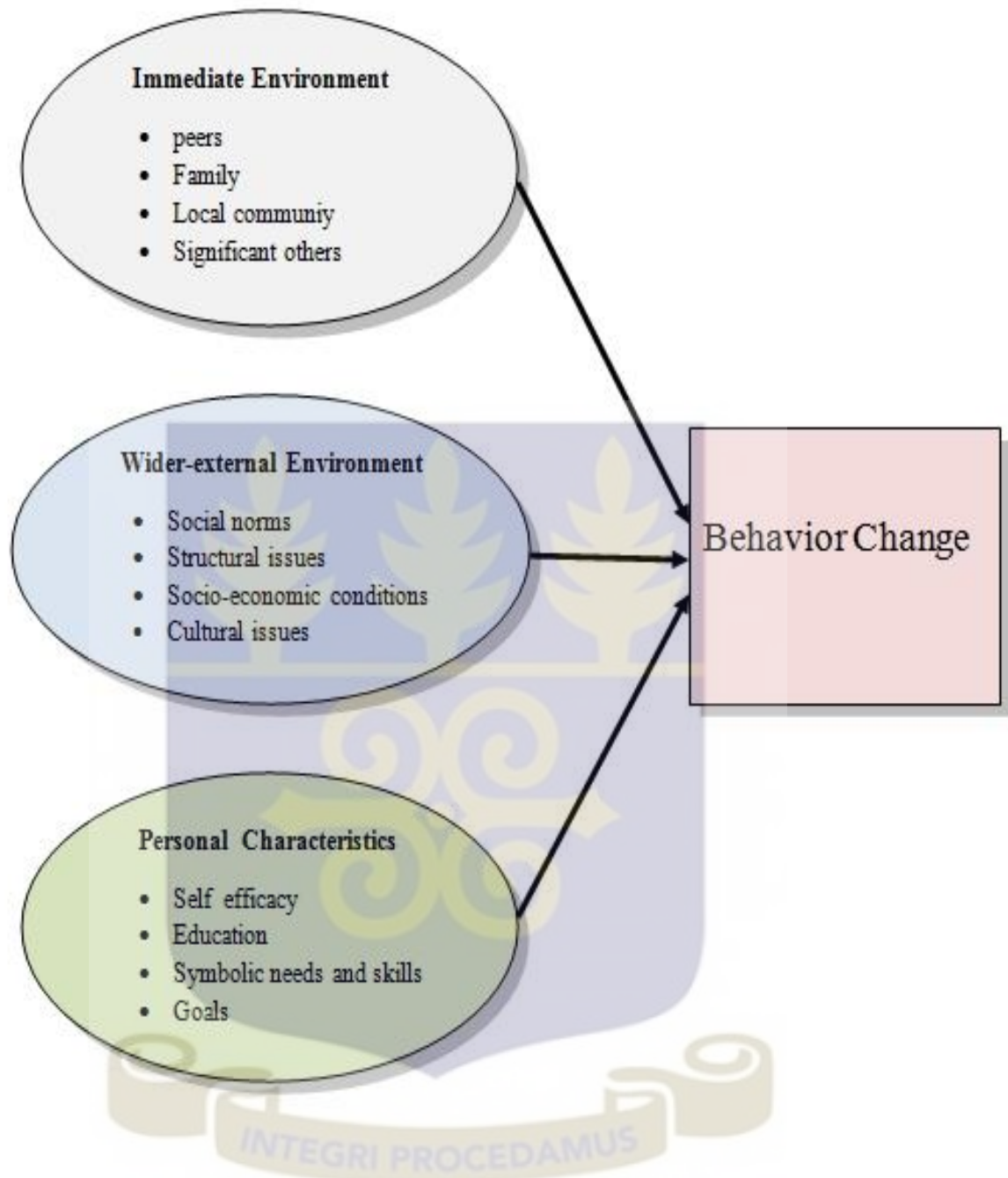


Figure 2.1: Source: Conceptual Framework Adapted From (Bundura, 1986; MacFadyen et al., 1998)

2.13.2 Components of the Conceptual Framework

The major components of the conceptual framework for this study include: Immediate Environment, Wider-External Environment, Personal Characteristics as well as

Behaviour Change. As shown in the diagram above, the three constructs combine to influence individual behaviour change. These constructs have been elaborated below:

2.13.2.1 Immediate Environmental Influence

These factors according to the social cognitive framework are those that are relatively direct and very close to the individual (Bandura, 1997). The variables within the immediate environment are made up of the influences of friends, family, local community and significant others. The immediate environment helps to shape the behaviour of individuals in the society and pose a great challenge for individuals. In terms of individual's preferences, needs and how decisions are made is basically as a result of greater influence exerted by the immediate environmental influence. However, most of these factors within the immediate environment can be controlled by the individual but the extent is dependent on the psychology of the person. From the construct, there is a direct relationship between immediate environment and behaviour change. The framework suggests that in order to encourage people to engage in breast screening, the immediate environment plays a critical role in determining the extent to which people will endorse the idea. This has also been examined from the literature and as a result, the researcher posits that:

H1: there is a positive relationship between the immediate environment and breast cancer screening behaviour.

2.13.2.2 Wider Environmental Influence

The social cognitive theory also explains the factors that are wider from the individual and these factors exert more indirect influence on behaviour change (Bandura, 1986). They are powerful factors that the individual has no control over (Bandura, 1991; MacFadyen et al., 1998). From the construct, these influences have been identified to be physical or structural issues, social and cultural, political and legal and economic

factors (Baker, 2002; Jobber, 2003; Kotler & Armstrong, 2004; Wilson & Gilligan, 2005). Until there are changes in the wider context factors, behaviour change at the individual level will be extremely difficult if not impossible (Bandura, 1997). This explains the reason why many social marketers move upstream to influence behaviour change. In most cases, internal motivation is influenced by the cultural beliefs, family norms and economic situations prevailing. In the light of this, the researcher postulates that:

H2: there is a positive relationship between wider external forces and breast cancer screening behaviour.

2.13.2.3 Personal Characteristics

The internal factors are those within the individuals that serve to influence their behaviour (Bandura, 1986). According to Bandura (1991), the internal variables within the individual are the level of education or knowledge, self-efficacy, skills, goals and aspirations and symbolic needs of that individual. As aforementioned, these variables do not stand alone to influence the individuals to change their behaviour. Maibach & Cotton (1995) emphasizes that it would be unethical to engage in victim blaming by putting an unfair degree of responsibility for their own predicament on people who are already suffering and disempowered. The environment then becomes crucial in determining how the individual can facilitate behaviour change (Grembowski et al., 1993). Simply telling people to screen their breast without the requisite knowledge, skills and structures or facilities to visit will invariably result in negative reaction. The personal variables have been applied successfully in other health related issues and the results have been phenomenal (Gecht, Connell, Sinacore, Prohaska, 1996; Grembowski et al., 1993; King, Marcus, Pinto, Emmons, & Abrams, 1996). Hence, the researcher deems it expedient to incorporate these variables to test its impact on breast cancer

screening in Ghana for any meaningful contribution to existing literature. This study therefore put the hypothesis that:

H3: there is a significant positive relationship between personal factors and breast cancer screening behaviour.

2.13.2.4 Behaviour change

Behaviour change has been examined differently by scholars, however, behaviour change itself is a process which involves several steps beginning with understanding the existing knowledge, attitude and behaviour as well as the nature of competition (MacFadyen et al., 1998). From the construct, Bandura (1986) postulates that, behaviour change is reciprocally determined by three strong factors. Thus for a behaviour change to occur, the framework suggests the interplay of personal characteristics, immediate influences and finally the wider social influences. These factors are both internal and external within the individual's environment that determine behaviour change.

In summary, the researcher believes that, there are forces that influence behaviour change and by adapting the social cognitive theory as a framework, it will help to understand these factors which are likely to influence breast cancer screening in Ghana.

CHAPTER THREE

CONTEXTUAL STUDY OF THE RESEARCH

3.0 Introduction

Every research is conducted within a particular context and a discussion of adequate knowledge about such a setting is very necessary in order to facilitate the reader's understanding of the context within which the research is situated. Therefore in accordance with the aim and purpose of the study, this chapter provides a brief background of Ghana and narrows it to Madina, a suburb of Accra Metropolitan Area. It also discusses general issues related with breast cancer and breast screening exercise in Ghana. Finally, the discussions will be focused on the Oncology units in Ghana, followed by breast cancer statistics at the Korle-Bu Radiotherapy Centre to show the current state of breast cancer screening in Ghana.

3.1 A brief background of Ghana

Ghana is a country situated on the West Coast of Africa with a population estimate of 27,059,987 as of July 11, 2015 (World Population Review, 2015), sandwiched in-between Ivory Coast to the west and Togo, the east. It is bordered by Burkina-Faso to the north and the Gulf of Guinea to the south. Geographically, Ghana is the closest country to the centre of planet earth than any other country. Out of the estimated population, around 50.9% represents the male population and 49.1% represents the female population (World Population Review, 2015).

This research focuses on Madina Market which is situated at the La-Nkwantanang Madina Municipal Assembly, located at the northern part of Greater Accra Region, a few distance away from the University of Ghana. According to the Ghana Statistical Service (2010), the total population is around 111,926, representing 2.8% of the region's total population. The females constitute 51.5% and males, 48.5%. Trading is

the main activity in the Municipality with the Madina market as the main one. The items traded include both perishable and non-perishable goods.

3.2 Breast cancer situation in Ghana

It is reported that one of the health problems confronting the world and for that matter Ghana is the menace of breast cancer (Opoku, Benwell & Yamey, 2012). It is estimated that in Ghana, 2,062 new breast cancer cases are reported annually out of which about 1,137 deaths are recorded annually, representing 16.5% of all women cancer deaths (Mena, Wiafe & Sauvaget, 2014). Furthermore, the extant literature establishes that about 60% of the cases of breast cancer in Ghana are detected at late stages where nothing could be done about it (Opoku, Benwell & Yamey, 2012).

Again, breast cancer knowledge and screening in Ghana have been reported very low (Mena, Wiafe & Sauvaget, 2014). Even though in Ghana, regional and area breast cancer statistics are not known, the recorded estimate gives a fair idea of what is prevailing in Ghana. The researcher would want to use the women at the Madina market to assess the situation since most of them may have challenges to screen their breast.

3.3 Breast cancer terminologies defined

According to the American Cancer Society (2014), cancer is a disease in which cells in the body grow out of control. Breast cancer is a malignant cancer tumor that starts in the cells of the breast and is mostly found in women although men can get it, too. In other words, when cancer starts in the breast, it is known as breast cancer. Breast cancer shows most commonly as a painless breast lump and a smaller proportion with no lump symptoms. To become breast aware means getting to know the state of the breast at different times of the month. Breast screening refers to tests and exams used to find a disease like cancer in people who do not have any symptoms. It is reported that the

earlier breast cancer is found, the better the chances that treatment will work. The ultimate goal of this exercise is to find cancer before they start to cause symptoms.

3.4 Signs and symptoms of breast cancer

Finding new lumps or mass is the commonest symptom of breast cancer. If a lump is painless, hard and has an uneven edges, then it is likely to be a cancer. However, some cancers have been identified as soft, tender, rounded and painful. As a result, the best thing for a person to do is to report anything new or unusual as early as possible. Other symptoms include the following:

- Swelling of all parts of the breast
- Skin irritation or dimpling
- Breast pain
- Nipple pain or the nipple turning inward
- Redness, scaliness, or thickening of the nipple or breast skin
- A nipple discharge other than breast milk

Source: American Cancer Society (2014).

3.5 Risk factors for breast cancer

According to the American Cancer Society (2014), the exact cause of breast cancer is not known, however, there are certain risk factors that are associated with the disease. They define a risk factor as something that affects the chance of getting a disease such as cancer. The following factors have been identified:

Gender: breast cancer is much common in women than men and being a woman is the greatest risk for breast cancer.

Age: every woman is at risk for breast cancer and her risk increases with age. The society reports that approximately 77% of women with breast cancer are age 50 or

older at the time of diagnosis. However in Ghana the ages are in between 40-49 (Clegg-Lamprey & Hodasi, 2007).

Family history: a woman's risk of getting breast cancer doubles if she has a close blood relation with the disease.

Personal history of breast cancer: a woman who has been diagnosed with breast cancer in one breast has a greater chance of getting cancer in the other breast.

Delays in giving birth: never giving birth or giving birth after age 30 increases the risk of developing breast cancer.

Race: white women are more susceptible to breast cancer than the African-American women, though the latter are more likely to die of the disease.

Alcohol usage: especially those women who take in alcohol two or more drinks daily (Hamajima et al., 2002).

Obesity: an excessive weight gain after menopause also increases the risk for women (Flegal, Carroll, Ogden & Johnson, 2002).

Physical inactivity: although some studies have disproved that (Steindorf et al., 2003).

Long menstrual period: women who begin their menstrual period before age 12 and end it after the age of 55 also shows slight risk of breast cancer.

3.6 The types of breast cancer screening

According to the National Cancer Institute (2015), screening tests are used because it has been shown to be very potent in locating cancers early and as a result can reduce the chance of a person dying from these cancers. Three types of tests have been recommended by health care providers to screen for breast cancer (Center for Disease Control and Prevention, 2014).

3.6.1 Breast Self-Exams

This may be done by the individual where the person checks the breasts for lumps, changes in size or shape of the breast, or any other changes in the breasts or underarm. It is important to know how the breasts usually look and feel. This has been identified as the type with the lowest financial cost, however, it demands time and effort to do it at certain regular times in a year. The center reports that doing breast self-exams has not been shown as a way to decrease the chance of dying from breast cancer.

3.6.2 Clinical breast exams

This is where the person visits a facility for breast examination by professional medical assistant, who uses his or her hands to feel for lumps or other changes. The doctor will carefully feel the breasts and under the arms for lumps or anything else that seems unusual. This type comes with some level of financial burden.

3.6.3 Mammogram

Mammography is the most common screening test for breast cancer. A mammogram is an x-ray of the breast. This test may find tumors that are too small to feel. Mammogram has been recommended as the main and the most efficient test by the American Cancer Society to detect breast cancer early. The Center establishes that even with mammogram, they are less likely to find breast tumor in women younger than 50 years than in older women. The reason identified was because younger women have denser breast tissue that appears white on a mammogram and this can be harder to find when there is dense breast tissue.

3.7 Breast screening challenges faced by Ghanaian women

According to World Health Organisation (2011), many countries still have turbulent challenges with respect to unfavourable policy and, economic and regulatory environments. Clegg-Lamptey, Dakubo & Attobra (2009), reported that there are a lot

of challenges Ghanaian women generally face when it comes to breast cancer awareness and screening.

First of all, most specialized breast cancer detection centers are located in large cities such as Accra and Kumasi (Ministry of Health, 2001). As a result of this, most Ghanaian women report late due to the high costs of transportation for those living outside the big cities to visit the centres coupled with high hospital admission, surgery, radiologic examinations and laboratory (Clegg-Lampsey, Dakubo & Attobra, 2009). Ghanaian women delay in reporting any changes they identify in their breast together with subsequent prognosis, laziness, lack of time, forgetfulness, fear and lack of confidence among other reasons are given as failure on the part of women to engage in breast examination (Nafissi et al., 2012; Ghazali et al., 2013).

Clegg-Lampsey et al, (2009), reported that there is lack of systematic national screening programmes involving the use of mammogram to screen the women and for further examination. This is reflected in the weak health care system and poor access to health facilities in Ghana (Ohene-Yeboah & Adjei, 2012). In Ghana, most women who are diagnosed with breast cancer are within the ages of 40 and 49 (Ohene-Yeboah & Adjei, 2012). However, there is lack of modern health facilities with only few centres in the country (Dzakah, 2010). Research confirms that the health sector faces resource constraints and that the number of doctors are woefully inadequate (NPC, 2011).

Again, considering the rate of poverty in Ghana, a lot of patients are unable to make a down payment demanded for screening, diagnosis and treatment (Opoku et al., 2012). Ohene-Yeboah & Adjei (2012), also linked the lack of awareness of early signs and screening behavior with the low levels of formal education in Ghana. Other challenges identified in Ghana are the traditional and religious beliefs which influence behavior (Avong, 2000). Cultural beliefs were reported to impede the successful introduction of

public health education programmes, and certain chronic diseases are attributed to supernatural forces (Adongo et al., 1997).

3.8 Radiotherapy Centres in Ghana

Currently, there are only five radiotherapy centres operating in Ghana (Anderson, Cazap & El Saghir, 2010). These centres have been listed below:

1. The Korle-Bu Teaching hospital, Accra.
2. Peace and Love hospital, Accra.
3. Peace and Love hospital, Kumasi.
4. The Komfo Anokye Teaching hospital, Kumasi.
5. Sweden Ghana Medical Centre, Tema.

It has also been reported that, Radiation Radiotherapists are scarce in Ghana and are mostly concentrated at Korle-Bu and Komfo Anokye Teaching hospitals (Anderson et al., 2010).

3.9 Government's Programmes and Institutions to fight breast cancer

The government of Ghana is committed to fighting against breast cancer through the following ways:

3.9.1 Ministry of Health

The Ministry of Health was formed in 1957 by the government of Ghana and is responsible for the health of Ghana. It involves in providing public health services, managing Ghana's health care industry, and building Ghana's hospitals and medical education system.

It was reported by Ghana News Agency in 2010 that, the government of Ghana has secured 13.5 million dollars loan to improve radiotherapy facilities at the Korle-Bu Teaching hospital and the Komfo Anokye Teaching Hospital to strengthen cancer screening and prevention.

The Ghana News Agency also reported in 2015 that a new national strategy for cancer control in Ghana that provides key strategies and interventions for the management and control of major cancers for the next five years was launched in Accra.

3.10 The activities of NGO's to fight breast cancer in Ghana

There are a number of organisations and activities that support breast cancer programmes by the government of Ghana. Some of these NGO's are identified below:

3.10.1 Breast Care International

Breast Care International is an NGO founded in October 2002. They are dedicated to the establishment of breast cancer awareness centres throughout Ghana. This would enable them to create breast cancer awareness among Ghanaian women, especially the rural women since they are the majority, and educate them of the existence of the disease, undertake screening exercises, diagnosis, treatment, rehabilitation as well as research into the various breast pathologies especially breast cancer in Ghana.

Many organisations donate to BCI and one of such groups is the Golden Star Ladies Club. The members of the Bogoso and Wassa branches of Golden star ladies club in the Western Region of Ghana donated GH14000 from their 2013 breast cancer awareness and fund raising activities to the Breast Care International to support breast cancer activities in rural areas.

3.10.2 Breast Cancer Foundation

A non-governmental organisation, the Judith-Ellen Awuah-Darko Foundation for breast cancer (JEAD), has been launched in Accra. It was founded in 2010 to promote breast cancer awareness, screening and treatment, with a particular focus on rural communities. The Foundation has currently screened over 6000 people who live in rural communities in the Eastern Region of Ghana and has counselled many women. It has also carried out 16 screening exercises in some rural communities in Ghana.

3.10.3 UT Bank in Ghana

As part of their corporate social responsibilities, UT Bank has shown its commitment to fighting breast cancer in Ghana. In 2011, the bank collaborated with the cancer society of Ghana, Citi FM and GIZ to launch the 'Pledge Pink' 2011 which includes breast examination and other health screening in Accra and other regions where UT has presence.

3.11 Radiotherapy centre at the Korle-Bu Teaching Hospital

This study was also linked to the Korle-bu teaching hospital in Ghana to show some statistics at the radiotherapy centre for better understanding.

The Korle-Bu Teaching hospital is located in the Ablekuma South Sub metro within Accra, the capital of Ghana. It was established on October 9, 1923 and currently assumes the third largest hospital in Africa and the leading national referral centre in Ghana. At the moment, the Hospital has 2,000 beds and 17 clinical and diagnostic Departments/Units. It has an average daily attendance of 1,500 patients and about 250 patients' admissions.

The National Centre of Radiotherapy and Nuclear Medicine became operational in 1997 through a collaborative effort between the Government of Ghana, acting through the Ministry of Health and the International Atomic Energy Agency (IAEA), and through the Ghana Atomic Energy Commission (GAEC). What gave rise to the project was the recognition of the fact that over 50% of all cancer patients require Radiotherapy at one stage or the other in the course of the disease. In addition 40% of all the cancer cures result directly from the use of Radiotherapy.

3.12 Breast cancer statistics at the Radiotherapy Centre, Korle-bu for 2013 and 2014

Even though at the moment, there is no accurate consolidated national statistics on women who screen their breast regularly in Ghana, the researcher in a bid to understand the issue collected information about the number of women who attended breast clinic at the Radiotherapy Department, Korle-Bu teaching hospital, Accra. It compared month by month records regarding the number of patients who visited the clinic in 2013 and 2014 respectively. The data gathered at the radiotherapy department indicated a general decrease in patients who attended breast clinic from 784 to 673, from 2013 to 2014. This represents a decrease of 7.62% in the total number of women who attended the breast clinic for breast examination. The table 3.1 summarizes the figures collected at the centre:

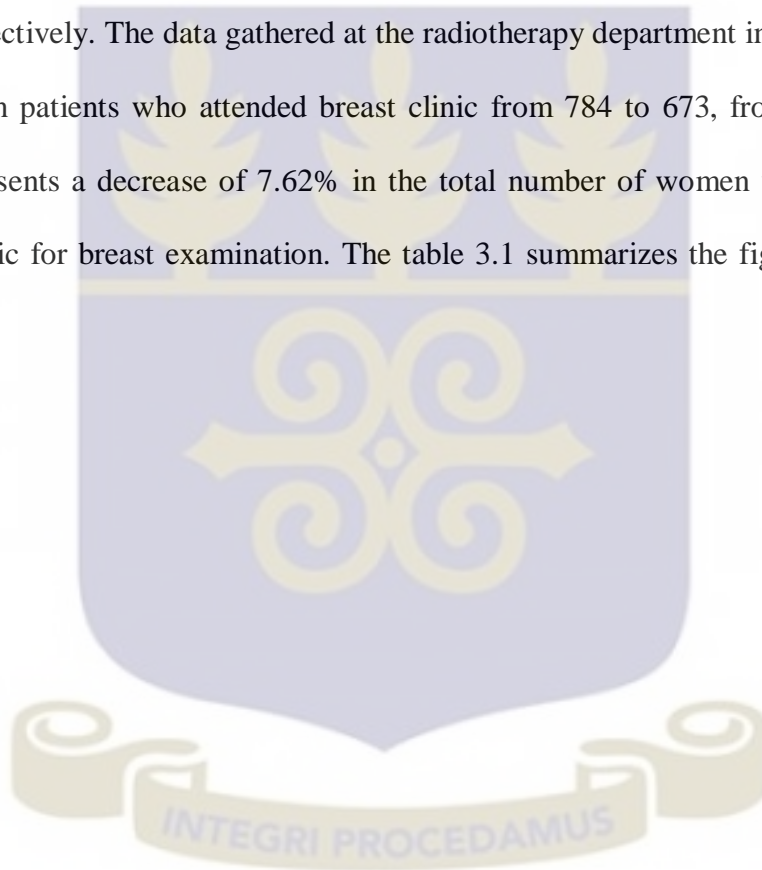


Table 3.1: the summary of breast clinic records for 2013 and 2014.

MONTH	YEAR		VARIANCE
	2013	2014	
January	56	36	-20
February	81	72	-9
March	63	66	+4
April	47	63	+16
May	63	59	-4
June	60	74	+14
July	59	70	+11
August	79	64	-15
September	70	67	-3
October	62	31	-31
November	95	56	-39
December	50	15	-35
TOTAL	784	673	-111

Source: Radiotherapy Centre, Korle-bu Teaching Hospital

The evidence from research has revealed that there is currently low breast cancer awareness and screening behaviour among Ghanaians which invariably has resulted in high death rate. The statistics gathered also proves a low turnout. The researcher believes social cognitive framework can help to understand the factors which are likely to influence breast cancer screening in Ghana, using the situation at the Madina market, Accra.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 Introduction

This chapter aims at discussing the main methodological dimensions employed in this thesis by first looking at the research paradigm and epistemological assumption, research approach, research design, data sources and research strategy. The issues related with data collection, population, sampling techniques, questionnaire design and administration and data analysis techniques. Finally, the quality criteria applied to this study as well as the ethical considerations of quality criteria applied to this study are then discussed.

4.1 Research Methodology Defined

Research methodology refers to the procedural framework within which the research is conducted (Saunders et al., 2009; Amaratunga et al., 2002). Again, methodology can be seen as a way of thinking about and reality of studying. Method, has been defined by Strauss & Corbin (1998) as “a set of procedures and techniques for gathering and analyzing data. A research methodology also serves as a set of rules for reasoning, by which the evaluation of facts can be used to draw inferences (Eldabi et al., 2002). Methodology can also be explained as the way in which the researcher investigates and seeks answers to pre-defined research problems (Taylor & Bogdan, 1984).

4.2 The underlying paradigm and epistemological assumption

It is suggested that in any research, individual values, philosophical assumptions, theoretical backing, and the research methods should all be related to each other and to the aims of the research (Buame, 1996). Therefore, it is essential to discuss the philosophy and paradigm underlying the research of this nature.

According to Wittgenstein (1961), a paradigm is a “world-view. The concept of “paradigm” has been defined as “a set of assumptions about the social world, and about what constitute proper techniques and topics for inquiry” (Punch, 1998). Paradigm has also been defined by Kuhn (1962) as the “entire constellation of beliefs, values, techniques, and theories shared by members of a scientific community”. According to Mangan et al, (2004), the concept of paradigm is pivotal to the research process in all areas of study and that it is a very general conception of the nature of scientific endeavour within which a given enquiry is undertaken (Ritzer, 1975).

The two schools of philosophy according to some scholars can be referred to as logical positivism or deductive theory testing and phenomenology also known as interpretive inquiry, inductive theory building or social constructionism (Romano, 1989; Bonoma, 1985; Easterby-Smith et al., 1991; Parkhe, 1999; Amaratunga et al., 2002; Mangan et al., 2004). The phenomenology (interpretive science) inquiries uses qualitative and naturalistic approaches to inductively and holistically understand social phenomenon from the researchers own perspective of context-specific settings whereas logical positivism uses quantitative and experimental methods to test hypothetical-deductive generalizations (Amaratunga et al., 2002).

According to Easterby-Smith et al, (1991), researchers who follow the positivist world view or approach to science inquiry also known as quantitative researchers’ belief that the world is external and objective where definite structures affect people in similar ways and vice versa. Positivism searches for causal explanations and fundamental laws, and generally reduces the whole phenomenon to simplest possible elements in order to facilitate analysis (Taylor & Bogdan 1984; Easterby-Smith et al., 1991; Remenyi et al., 1998; Silverman, 1998; Creswell, 2009).

Contrary to the positivists' are the phenomenologist (interpretive science) inquiry who rejects the positivists' beliefs on the ground that human behavior is significantly influenced by the setting in which it occurs, therefore, it is necessary to study this behavior in these settings (Marshall & Rossman, 1989). Phenomenologist therefore view the world to be socially constructed and subjective where researchers' see themselves as part of the phenomena being study, with the researcher interfering as little as "humanly" possible during the inquiry. In this circumstance, the researchers make use of their own experiences and create their "own" reality (Locke et al., 1993).

Based on these approaches, the researcher believes that an objective reality exists by adapting the social cognitive framework to know the factors that are likely to influence breast cancer screening in Ghana. The researcher also formulated hypotheses based on the constructs and tested them by using self-administered structured questionnaires, took sample from the population of the study and generalized the findings of the study to the whole.

The researcher also believes in a body of knowledge and that is the epistemological assumption. The term epistemology is about what constitutes acceptable knowledge in a field of study (Saunders et al., 2009). It comes from the Greek term episteme meaning knowledge and logos meaning theory. It is a theory of knowledge and has been a subject of philosophical debate from the time of Aristotle (Stough, 1969). The term epistemology refers to beliefs about the way in which knowledge is construed. It questions whether it is possible to identify and communicate the nature of knowledge as being "hard", "real" and capable of being transmitted in a tangible form (Eldabi et al., 2002). Epistemology concerns itself with posing and resolving the problem of how "valid" knowledge is possible (Macdonnel, 1986). It deals with the nature, origin, scope and limits of human knowledge (Buame, 1996). In setting out for knowledge,

epistemological positions on an issue looks at whether knowledge is something that can be acquired or something personally experienced (Burrell & Morgan, 1979).

According to Eldabi et al, (2002), they hold the view that knowledge is “hard”, objective and tangible and that the researcher should adopt the role of an observer. However, to view knowledge, as personal, subjective, and unique in nature, requires a researcher to become involved with their subjects. Research suggest that adhering to the former is to be positivist and to the latter is to be interpretivist (Weick, 1984). This implies that, epistemological assumptions dwells on what is the acceptable truth by specifying the criteria and process of assessing truth claims (Chua, 1986). Again, it assumes that knowledge can be acquired with knowable degrees of certainty using objectively-correct scientific methods (Long et al., 2000; Neuman, 2003) and concepts such as reliability, validity and statistical significance with the purpose of describing some part of reality (Hanson & Grimmer, 2007). Taking the opposite side, it is assumed that knowledge can be gained through individual understanding of a particular viewpoint in the form of participant observation (Morgan & Smircich, 1980).

The researcher believes that knowledge is hard, objective and tangible and as a result seeks to understand the social setting by identifying factors that are likely to influence breast cancer screening and relationships among the constructs in explaining the phenomenon.

4.3 Research Approach

This section of the methodology explores the differences of inductive and qualitative research as against deductive and quantitative research and provides explanations for why this particular study has pursued a largely deductive and quantitative approach. Scholars of research methodology have identified two main approaches to research

inquiries: qualitative (inductive) and quantitative (deductive) (Blaikie, 2005; McGivern, 2006) and researchers in social marketing have applied both methodologies (Dilorio et al., 2000; Tweneboah Koduah & Owusu Frimpong, 2013)

Qualitative research has been described by Bryman (1993) as an “approach that studies the social world, and seeks to describe and analyze the culture and behavior of humans and their groups, from the point of view of those being studied emphasizes getting close to the subject(s) of study and assuming the role of a participant to describe a social reality from the perspective of the subject rather than observer”. It is also concerned with rich and detailed description, understanding and insight rather than measurement (McGivern, 2006). As a result, qualitative research methods are associated with face-to-face contact with people in their research setting, together with verbal data and observations (Eldabi et al., 2002). Qualitative research also involves small sample size in the form of in-depth interviews which are recorded and later transcribed, field notes through observation, written documents and archives (McGivern, 2006). The extant literature shows that despite the strengths of this approach, the less structured and standardized approach can render the information acquired relatively low in reliability (McGivern, 2006). It may also be influenced by the researchers own personal feelings, opinions and biases (Eldabi et al., 2002).

On the other hand, quantitative research approach begins with abstract logical relationship among concepts and then moves towards concrete empirical evidence (Neuman, 2007). It has been defined as an extreme of empiricism according to which theories are not only justified by the extent to which they can be verified but also by an application of facts acquired (Amaratunga et al., 2002). Quantitative researches are also used to measure how people feel, think or act in a particular way, it seeks to quantify data and apply some statistical analysis, which is often formalized, well structured, and

data is usually obtained from large samples (Tull & Hawkings, 1993). Saunders et al, (2009), reveal that for a quantitative study, the vital skills needed for the researcher are the ability to develop hypotheses and test them with proper statistical techniques, and interpret the statistical information into descriptive information.

This study employed the quantitative approach as it seeks to engage in rigorous analysis of statistical data to achieve the stated objectives and hypotheses based on the conceptual model adapted from literature. The justification is that, results derived from quantitative research are assumed to be measurable and presentable in the form of numbers and statistics (Hultman, 2008). The aim is to make generalizations based on the processed results of the investigation. The quantitative method is formalized, structured, and approaches the research problem from a broad perspective (Hultman, 2008). Again, most researchers who used the social cognitive model to influence behaviour change have employed the quantitative approach (Dilorio et al., 2000; Haug et al., 2009 & Singh et al., 2010). Consequently, it explains why this study adopted a quantitative approach.

4.4 Research Design

Research design constitutes a framework or blueprint for collection, measurement, and analysis of data (Cooper & Schindler, 2001). Consequently, the choice of research design becomes very critical since it influences a large number of subsequent research activities (Churchill & Iacobucci, 2006). Research design has been classified in several ways by scholars (Miles & Huberman 1994; Saunders, Lewis & Thornhill, 2007), but a widely accepted method is to classify them according to the fundamental objective of the study as being exploratory, descriptive and/or, causal (Churchill & Iacobucci 2006; Hair et al., 2006). Exploratory study is the one that seeks new insights into a phenomenon; descriptive research provides an accurate description of a situation and

causal research seeks to establish the relationship between variables in a situation (Malhotra & Birks 2007).

In an effort to determine which type of research design to adopt for this research, the nature of the study and its specific objectives were carefully taken into consideration. Consideration of a number of influencing factors concluded that a descriptive research was the most suitable for the purpose of this study. The main factors that influenced the choice were that the research problem was highly structured in addition to the fact that there was enough existent evidence available to formulate empirically testable hypotheses.

4.5 Data Sources

Sources used for data collection can be categorized into two forms: primary and secondary (Yin, 1994). Primary sources of data are collected and accumulated specifically for the research problem at hand, whereas secondary sources contain data that have been gathered and assembled at a previous time for other purposes other than the current research problem (Hair et al., 2006; Tull & Hawkins, 1993; Yin, 1994). The advantage of secondary data is that it can usually be collected at a lower cost and more rapidly than primary data. On the other hand, since it was usually collected for a different purpose, its content might correlate poorly with the researchers' current needs (Hair et al., 2006; Yin, 1994).

This is one of the reasons why primary data sources were utilized for this study. Moreover, considering the relative complexity and depth of the information required by the current study, no presently available secondary sources were located that were sufficient. The primary data source was data collected through the design of a structured questionnaire which were administered directly to the women at Madina market, Accra.

4.6 Population of study

According to Bryman & Bell (2007), the study population is the world of units from which the sample size is drawn for the research. The target population for this research comprised of women from 18years and above at the Medina market, a Sub metro within Accra Metropolitan Area, Ghana. According to Ghana Statistical Service (2013), currently, Accra has an estimated population of about 3,888,512 inhabitants.

4.7 Sample size

For many research questions and purposes, it becomes impossible to either collect or analyse all the data available in a population due to time, money, and often, access restrictions. Saunders et al. (2007) emphasise that a census investigation does not necessarily provide more useful results than a well-planned sample survey. As long as the study sample is representative, generalisations about the underlying population can still be drawn (Churchill & Iacobucci 2006; Zikmund, 1994). Also, according to Hair et al, (2006) for a sample to be representative, it should not be less than 100 whereas other researchers also argue that it should be 200 (Coakes & Steed, 2005). Consequently, following the argument of Coakes & Steed (2005), and considering time limitation and financial resources allocated for the study, a sample of 300 respondents at the Madina market were selected for the study.

4.8 Sampling Technique

The sample was selected using non-probability purposive sampling technique. This technique does not rely on chance based selection but on researchers own judgement (Malhotra & Birks, 2007). A combination of the convenience and judgemental sampling techniques were employed. This is because there is no sample frame and samples have to be determined on the field with some degree of judgement needed

when collecting the data. Also, sampling technique used was based on the purpose of the study (Mahmound, Tweneboah Koduah & Danku, 2011).

4.9 Data Analysis Techniques

When the fieldwork was completed and the data had been collected, compiled, edited, coded, and computerized, the next stage involved statistical analysis. At this stage, the choice of the most suitable statistical techniques was based on the type of measurement scales used in the research instrument and the nature of the questions asked (Hair et al., 2006). This thesis involved a number of different statistical methods. However, the main statistical packages utilized for this thesis were the Statistical Package for Social Sciences SPSS version 20.0.

4.10 Descriptive Statistics

Descriptive statistics can be used to transform raw data into a form that makes it easier to understand and interpret, and it can also be used to assess missing data, outliers, and normality (Hair et al., 2006). Various descriptive statistical methods were utilized throughout the analysis of the data and the results presentation of this thesis. In the beginning of the results presentation chapter (Chapter 5), measures for frequency distribution and central tendency (mean) were used, as well as measures for dispersion (standard deviation). The expectation was that this type of statistics would help explain the descriptive findings in the thesis.

Descriptive statistics was employed in the study. Pearson's correlation was conducted to establish relationships for further analysis with a significant level of 0.05.

4.11 Ethical Considerations

In research, one very important consideration a researcher must not overlook is the issue of ethical considerations such as openness to respondents and appropriate treatment of confidential information in research (Miles & Huberman 1994; Malhotra &

Birks 2007). Verbal consent was obtained from each participant who volunteered to participate in the study. The study objectives and protocol were explained to every respondent and they were given the opportunity to ask questions and seek clarification on the information given. Also respondents were assured of the fact that the study is only for academics purposes and not for any other purpose that will conflict with their interest.

4.12 Quality Criteria

When conducting research, it is of utmost importance to judge its quality. Clearly, a study never gets better than the actual measures employed when conducting it (De Vaus, 2002). When establishing the quality standards, Yin (1994) explains that the quality of research can be assessed in terms of different measures of validity and reliability. This final section of the chapter discusses the different measures for validity and reliability in this thesis, and explains the measures that have been taken to avoid research quality deterioration.

4.12.1 Validity

Validity has been defined by Peter (1979) as “the degree to which instruments truly measure the constructs that they are intended to measure.” Based on this definition, it becomes clear that validity in a measure is vital for the credibility of a study’s results (Blumberg et al., 2005; Cooper & Schindler, 2003). For this study, two types of validity were particularly important; these were content validity and criterion validity (Hair et al., 2006). The first type, content validity, refers to how well a construct’s measurable components actually represent that construct. This is often assessed by letting a panel of experts judge the dimensionality of a certain construct, which shows that it focuses primarily on judgment (Cooper & Schindler, 2003; Hair et al., 2006). In this thesis, the issue of content validity was dealt with during the questionnaire pretesting phases,

when the draft version of the questionnaire was screened and pretested by experts and potential respondents.

4.12.2 Reliability

Construct reliability is assessed when a researcher evaluates whether the utilized measures are free from random error and are therefore capable of generating results that are consistent (Zikmund, 1994). It differs from validity in that it looks at the agreement between two efforts of measuring the same trait through maximally similar methods as opposed to measuring the same trait through maximally different methods. Although reliability is an underlying condition for a measure to be valid, it does not give sufficient prove for validity (Churchill & Iacobucci, 2006). The reliability concept can be further broken down into two dimensions: repeatability and internal consistency (Zikmund, 1994). As the name implies, repeatability refers to how stable a utilized measure is if it was to be administered to the same respondent at two separate points in time. The internal consistency measure looks at how stable a certain measure is across its various items and can be measured through, for example, split-half or equivalent-form method (Carmines & Zeller 1979; Peter, 1979).

4.13 Data Collection Methods

The study employs the survey method of quantitative primary data collection because it cannot control the independent variables, and also, observation is too time consuming and expensive (Saunders et al., 2007). According to Babbie (2004), this is probably the best method available to social scientists for gathering primary data from a population too large to be observed directly; accordingly, the survey strategy is also the most common research strategy when it comes to collecting explanatory research (Hair et al., 2006; Kent, 2007; Zikmund, 1994). Considering the sizeable population anticipated for this study in addition to the inability of an observational method to collect the

information required in a timely and cost-effective fashion, the only data collection method deemed appropriate for the study at hand was the survey.

Having selected the survey method, the next decision involved choosing the actual means of obtaining information from the informants. The options available were personal interviews, telephone interviews, or self-administered questionnaires (Malhotra & Birks, 2007). The study adopts the personally administered questionnaires as telephone interviews are not conducive for the purposes of this study while personal interviews are expensive (Tull & Hawkins, 1993). Comparing with the other methods, questionnaires are usually much cheaper to administer (Hair et al., 2006). In addition, there is a sense of anonymity and much less time constraint associated with self-administered questionnaires than for other primary data collection methods (Saunders et al., 2007). The standardised nature of written questionnaires also facilitates comparisons of different respondents' answers in subsequent data analysis (Churchill & Iacobucci, 2006).

4.14 Questionnaire design

The researcher designed a structured questionnaire, which comprised of closed-ended questions to gather data from the field to empirically test the conceptual model proposed in chapter two. Questions regarding finding answers to each research objective and hypothesis concerning the various constructs identified in the study's framework were developed. Later, the constructs were translated into measurable terms, as it was impossible to measure the constructs at the conceptual level. This operationalization involved developing a scale that would capture the meaning of each of the predetermined conceptual constructs (Corbett & Le Roy, 2006). Having established the operationalisation of the constructs in the conceptual model through multiple indicators, the next decision concerned how to measure each of these

indicators. Hence, the researcher developed a set of questions based on the various constructs and adopted a five-point Likert scale where possible answers ranged from Strongly Disagree (1) to Strongly Agree (5), for all the three constructs under social cognitive framework and that of behavioural change with respondents required to indicate their level of agreement or disagreement with respect to the statements provided on each of the indicators on the questionnaire in measuring the constructs. Moreover, the first section of the questionnaire aimed to capture the survey respondents' demographics. The entire questionnaire for this particular study was created with the guidance of four decision points as explained below:

4.14.1 Question wording

Seeing that the present study employed a self-administered questionnaire, the choice of words and phrases for each question became vitally important due to the fact that the questions would be interpreted solely on the basis of printed instructions and definitions. Knowing that a poorly phrased question can cause a respondent to refuse to answer, or answer erroneously (Churchill & Iacobucci 2006), extra attention was paid to phrase the questions clearly and concisely with a minimum of ambiguous or confusing terms. In addition, according to scholarly recommendations (Saunders et al., 2007; Malhotra & Birks, 2007), generalizations, implicit alternatives, assumptions, double-barreled questions, and leading or biased wordings were also avoided.

4.14.2 Question sequencing

The sequence in which the questions are posed is as important as the words and phrases used in the question construction (Churchill & Iacobucci, 2006). Questions presented in an improper sequence might influence the nature of respondents' answers and even cause grave inaccuracies in the overall survey findings (Churchill & Iacobucci 2006). Some of the guidelines in this area advise that the questions should be placed in a

logical sequence from the respondent's perspective. The opening questions should be uncontroversial and easy to answer, and these should be followed by the more difficult questions (Saunders et al., 2007). Again, Hair et al, (2006) suggested that the "flowerpot" approach should be adopted when applicable (i.e. starting with broader questions and eventually narrowing down from general to specific), and classificatory questions should be posed at the end along with demographic information (Saunders et al., 2007). These guidelines were incorporated and followed to the farthest extent possible throughout the questionnaire construction phase of this thesis.

4.14.3 Physical Questionnaire Design

Similar to the wording and sequencing of the questions on a survey questionnaire, the overall physical design of the questionnaire also plays a role in how the questionnaire is received by the respondents, which consequently influence response rate (Frohlich, 2002). Therefore, it is important that the questionnaire's physical format allows for clear communication (Hair et al., 2006). The importance of the questionnaire's physical features was not underestimated in this study, and careful attention was paid to issues such as size, shape, and quality of the paper, as well as print quality, choice of color, and layout. For directions on how to physically construct a successful questionnaire, relevant literature was consulted.

4.14.4 Pretesting of Questionnaire

Having designed the questionnaire it is recommended that the finalised version of the questionnaire be pretested to ascertain the suitability, applicability and clarity of the questions before proceeding with the main data collection (Hair et al., 2006). It further states that, the final version of the questionnaire is pretested to make sure that there are no problems regarding the clarity of the questions, instructions, determinant of

appropriate levels of independent variables, reliability and that face validity is satisfactorily (Hair et al., 2006). The face validity can be ensured by inviting experts in the field who can also review the questionnaire (Nunnally & Bernstein, 1994; Zikmund, 1994). This study invited experts who agreed that the scale logically appears to reflect what has been set out to measure, for which face validity was achieved. The clarity of the questions and instructions were tested by interviewing a pilot group of respondents having similar characteristics to those who were used for the main study, and asking for their opinion about the clarity and relevance of each of the questions in addition to the overall instructions (Kent, 2007). The two stages led to some modifications in the questionnaire in terms of phrasing and design, which further increased the overall quality for the main data collection phase (Dodds, Monroe & Grewal, 1991; Nunnally & Bernstein 1994; Saunders et al., 2007).

In view of this, the questionnaire was initially pilot-tested with 10 women and the results of the pilot-test proved to be satisfactory. The researcher also sought the assistance of experts who agreed that the questionnaire logically reflects what it has been set out to measure. Nonetheless, some minor wording mistakes were found and corrected in the questionnaire's version, which were finally distributed in the field research.

4.15 Fieldwork Data Collection

Data collection constitutes one of the major phases of the research process. The structured questionnaires were purposively distributed among the sampled respondents. Purposive as used by the researcher refers to selecting respondents for participation in the study mainly because they are representatives of the population of interest and meet the specified needs of the study (Dillon, Madden & Firtle, 1993).

Many activities preceded the actual data collection in selecting the respondents for the study. The first step was to seek for their consent. Respondents who gave their approval were then sought to participate in the research. Furthermore, the researcher explained the purpose of the research to the respondents and assured them of confidentiality of information provided and the use of the information not for any other purpose other than the intended study. This was done to maintain confidentiality of individual responses and reporting aggregate survey results whilst considering the ethical issues requiring the researcher to encourage participation without any undue pressure (Salant & Dillman, 1994).

Based on this, the researcher collected data from respondents who were willing to participate in the survey on the field. The entire data collection lasted for three weeks (from the third week in April to the first week in May 2015). Initially, data collection was meant to last for two weeks but due to the time spent for respondents to finish their personal dealings before gaining access to them, hence, the need for the extension. In all, the researcher contacted 320 women, out of which 300 women responded positively to fill the questionnaires. Some of the women contacted had low education and were helped. The response time for the questionnaire was about 10-15 minutes. The researcher obtained a valid returned sample size of 285 out of the total of 300 administered, representing 95% of the sample size. The fifteen (15), representing 5% of the total questionnaires administered were not returned.

CHAPTER FIVE

DATA ANALYSIS AND INTERPRETATION

5.0 Introduction

This section analyses and discusses quantitative information collected from respondents for the purpose of the study. A total of 300 questionnaires were distributed to respondents of which 285 were returned. Thus, the study recorded 95% response rate. The chapter employs percentage frequency, descriptive mean, and correlation analysis in addressing the specific research questions and objectives of the study. The analysis and interpretation of the empirical data for the study are presented as follows.

5.1 Background/Demographic Information

This section of the chapter investigates into the biographical features of the respondents sampled for the study. The major focus is on the age, marital status, educational attainment, occupation, and their monthly income. Again, information on respondents' religion, whether they screen their breast, the type of breast cancer screening exercise they do and the number of times they do breast examinations in a year were collected. Below is the presentation of background information on the respondents.

Tables 5.1 and 5.2 present information on the demographic characteristics of the respondents in this study. In terms of age majority of the respondents were between the ages of 35-44 years (36.8%). The next dominant age group was between 45-54 years also representing 28.1% of respondents. The rest were 25-34 years, 14.7%; 18-24 years, 10.5%; 55-64 years, 6.3% and 65 years and above 3.5%. Majority of the respondents were married representing 49%, followed by the single 42%, and divorced and widows representing 6.3% and 2.5% respectively. It was recorded that the highest education attainment was A-Level/SHS making up to 43% of the total score, followed by JHS 21%, primary 16.8%, tertiary 15.1% and finally those with no education 2.8%.

Regarding occupation of respondents, 43.2% were self-employed, 21.1% unemployed, 15.7% employed, 14.7 were students and 5.3% represented the retired. Majority had incomes between GH¢101-GH¢ 500 representing 43.8%; 28.1% were earning monthly incomes between GH¢ 501-GH¢ 1000, those earning less than GH¢ 100 were 16.8% and over GH¢ 1000 were 11.2%. The sampled respondents were found to come from the various common religious groups in Ghana. Majority 51.9% of the respondents were Muslims. This was followed by Christian respondents; 45% and the least of the respondents was Atheist; representing 2.8%.

The respondents were also asked whether they screen their breast or not. It was found that 165 of them representing 57.9% were not screening their breast at all, however, 120 representing 42.1% responded yes. In an attempt to inquire the number of times respondents do have breast examination within a year, it was observed that, out of the 120 respondents who said yes, most of the respondents, 56 (46.7%) do have the examination once in a year, 25 (20.8%) of the respondents reported to have the examination twice in a year, 24 (20%) of the respondents had none in the course of the year and finally, 15 (12.5%) represented those that practice breast examination three or more times in a year.

Table 5.1: Sample distribution

Variables	Frequency	Percent
Age		
18 - 24	30	10.5
25 - 34	42	14.7
35 - 44	105	36.8
45 - 54	80	28.1
55 - 65	18	6.3
65 and above	10	3.5
Marital Status		
Married	140	49.1
Single	120	42.1
Divorced	18	6.3
Widowed	7	2.5
Educational Attainment		
No Education	8	2.8
Primary Education	48	16.8
JHS	62	21.8
A-Level/SHS	124	43.5
Tertiary	43	15.1
Occupation		
Unemployed	60	21.1
Self-employed	123	43.2
Employed	45	15.7
Retired	15	5.3
Student	42	14.7
Monthly Income		
Less than GHC 100	48	16.8
GHC 101 - GHC 500	125	43.8
GHC 501 - GHC 1000	80	28.1
Over GHC 1000	32	11.2

Source: Field study 2015

Table 5.2: Sample distribution

Variables	Frequency	Percent
Religion		
Christian	129	45.3
Muslim	148	51.9
Atheist	8	2.8
Whether you screen Or not		
Yes	120	42.1
No	165	57.9
Type of Screening		
Self-breast exams	65	54.2
Clinical breast exams	50	41.7
Mammogram	5	4.1
Number of Exams in a Year		
Once	56	46.7
Twice	25	20.8
Three or more	15	12.5
None	24	20

Source: Field study 2015

5.2 Behaviour Change Influencing Factors

This section evaluates behaviour change influencing factors from respondents' point of view. Behavioural change as outlined in this section is assessed on the bases of immediate environmental factors, external environmental factors, and personal influencing factors. Individual statements captured under these dimensions were presented to respondents for evaluation base on the factors that influence their behaviour towards breast cancer screening. Respondents were required to use a 5 point Likert scale to measure each statement on a performance indicator value where 1 represents Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5- Strongly Agree. It

must be noted that all negative statements were reverse coded during the analysis stage to take positive direction to ensure uniformity in approval ratings. For instance, the statement “I think breast cancer screening is difficult and demands time” is reverted to mean “I think breast cancer screening is easy and less time consuming”, hence, 1→5, 2→4, 3→3, 4→2, 5→1 on the measuring scale. An aggregated mean rating for each statement as well as overall mean for each indicator was calculated for the purpose of comparison. Standard deviations were also calculated to throw light on the variations in the responses given by respondent as well as indicating reliability of claims by the study.

5.2.1 Immediate environmental factors

In the assessment of immediate environmental factors as a component of behavioural change indicator, the study recorded an overall mean rating of 2.96 as aggregated from respondents’ score ratings, representing a moderate approval to the statement. Specifically, the statement that respondents mostly affirmed to was that they have been influenced by the advice of health workers on breast screening and this attained a respective mean and standard deviation of 3.56 (high) and 1.29. This was followed by the statement that they were influenced by the activities of breast cancer organisation with a mean and standard deviation of 3.34 and 1.22. The next approved statement was that they were sure the people around them engage in breast cancer screening and related issues with a mean and standard deviation of 3.25 and 1.30.

The statement which suggests that respondents’ workplace is concerned and regularly talks about breast cancer screening and related issues also attracted a moderate approval rating with mean and standard deviation of 3.23 and 1.40. On the other hand, the statement which attracted least approval rating from respondents was “my family is concerned about breast cancer screening because they have history with breast cancer”

as it attracted respective approval mean rating and standard deviation of 1.83 and 1.18.

This information is summarise in table 5.3.

Table 5.3: the summary of immediate environmental statistics.

Variables	N	M	SD
My friends encourage me a lot to engage in breast cancer screening exercise	283	2.75	1.28
I receive support and advice from my parents/husband regarding breast cancer screening	283	2.69	1.22
My family is concerned about breast cancer screening because they have history with breast cancer	284	1.83	1.18
My religious affiliation talks and encourages me to involve in breast exams	282	3.09	1.36
I am influenced by the activities of breast cancer organisations	274	3.34	1.22
My workplace is concerned and regularly talks about breast cancer screening and related issues	280	3.23	1.40
I have been influenced by the advice of a health worker on breast screening before	283	3.56	1.29
I am sure the people around me engage in breast screening	279	3.25	1.30
Totals	281	2.96	0.77

Source: Field study 2015

5.2.2 External environmental factors

Responses obtained in the assessment of external environmental factors as a component of behavioural change in breast cancer screening are analysed in this section. Respondents in general terms approved to moderate level, the presence of favourable external environmental factors. An overall assessment rating of 3.23 (approximately neutral/moderate) was obtained. In specific terms, respondents most agreed to the statements that free breast cancer screening exercise should be organised as part of the activities that mark cancer day celebration in Ghana with a rating mean and standard deviation of 4.50 and 0.99 respectively. Again, there was high (M = 3.62, SD = 1.16) favorable rating for the statement that breast screening exercise and education are

regarded as important in respondents' societies. There was a moderate approval ratings for the statements "the media is very instrumental when it comes to providing education on breast cancer issues" ($M = 3.46$, $SD = 1.22$), and the fact that respondents believe breast cancer screening issues are intensively promoted in Ghana with a mean and standard deviation of 3.40 and 1.22 respectively. In addition, the statement which suggests that respondents think government is concerned about breast cancer screening issues and that they consider the cost involved in breast cancer screening as less expensive attracted a moderate approval ratings as evidence in respective mean rating score of 3.18 and 2.99. On the other, the statement that attracted least approval rating was the fact that issues about breast are regarded as forbidden subject in respondents' culture with a corresponding mean and standard deviation of 1.93 and 1.21. This is summarized in table 5.4.

Table 5. 4: the summary of external environmental statistics.

Variables	N	M	SD
For me, the cost involved with breast cancer screening is very expensive	279	2.99	1.32
The media is very instrumental when it comes to providing education on breast cancer issues	285	3.46	1.22
I believe breast cancer screening issues are intensively promoted in Ghana	280	3.40	1.21
There are enough structures or hospitals for breast cancer screening exercise	283	2.72	1.32
Issues about breast are regarded as forbidden subject in my culture	285	1.93	1.21
Breast screening exercise and education are regarded as important in my society	285	3.62	1.16
Free breast cancer screening exercise should be organised as part of the activities that mark cancer day celebration in Ghana	285	4.50	0.99
I think the government is concerned about breast cancer screening issues	285	3.18	1.26
Totals	283	3.23	0.62

Source: Field study 2015

5.2.3 Personal Influencing factors

The study considered among other factors, personal influence as a determining element towards breast cancer behaviour and hence collected empirical data on personal influences of the sampled respondent to examine how they affect behavioural change towards breast cancer issues. From the table below, the picture which emerged from the analysis of responses obtained from respondents suggest that there is generally high approval ($M = 3.80$) towards favorable personal influencing factors. Specifically, respondents gave the highest favorable approval rating mean 3.99 (approximately agree) with a standard deviation of 1.19 to statement that respondents do not have high fear in locating lump in their breast in the process of breast cancer screening.

Again, the statement “I have received education on how to examine the breast and what to look for” also received an approval up to an agreed level ($M = 3.97$, $SD = 1.07$) from the respondents. On the other hand, the statement which received the least approval from the respondents was the fact that respondents consider breast cancer screening as an easy less time consuming task with respective mean and standard deviation of 3.60 and 1.14. The table below in 5.5 summarises the personal factors.

Table 5.5: the summary of personal characteristics statistics.

Variables	N	M	SD
I have received education on how to examine the breast and what to look for	282	3.97	1.07
I think breast cancer screening is difficult and demands time	284	3.60	1.14
I have high fear in locating lump in my breast	283	3.99	1.19
I immediately report any changes in my breast as early as possible	280	3.66	1.21
I don't screen my breast because I don't know how to do it	283	3.81	1.38
Total	282	3.80	0.76

Source: Field study 2014

5.3 Behaviour Change

At this stage, the study steps to an investigation into the actual behaviour towards breast cancer related practices. Respondents were again required to rank their approval against related statements using the same five-point measuring scale. Descriptive result of the analysis is presented as follows.

In general, respondents' approval for the adherence to unfavourable practices towards breast cancer issues was high as evidence in the overall approval rating of 3.82 (approximately agreed). Specifically, the statement that respondents gave highest approval rating to was the fact that respondents do not screen their breast as it normally expected ($M = 4.54$, $SD = 0.76$). Again, respondents gave high approval to the statement that they have not examine their breast for the past two years ($M = 4.44$, $SD = 1.01$) although they will immediately report any changes in their breast as early as possible ($M = 4.33$, $SD = 0.86$). On the other hand respondents showed least agreement to the statements "I regularly visit the health center to screen my breast" and "I have personally educated women to screen their breast" with respective means and standard deviations of ($M = 2.92$, $SD = 1.15$) and ($M = 2.87$, $SD = 1.28$). See table 5.6 for details.

Table 5.6: a summary of behaviour change statistics

Variables	N	M	SD
I have not examine my breast for the past two years	285	4.44	1.01
I regularly visit the health centre to screen my breast	285	2.92	1.15
I have personally educated women to screen their breast	283	2.87	1.28
I immediately report any changes in my breast as early as possible	283	4.33	0.86
I do not screen my breast on regular basis as it is expected	285	4.54	0.76
Totals	284	3.82	0.63

Source: Field study 2015

5.4 Significant Test

This section of the study tests statistically, the various hypotheses stated at the introductory stage of the study. It employs the Pearson's Correlation as a statistical tool in examining the validity or otherwise of the hypotheses. In all, three related hypotheses were stated and tested, these are "there is a positive relationship between immediate environmental factors and breast cancer screening behaviour", "there is a positive relationship between wider external environmental factors and breast cancer screening behaviour", and "there is a significant positive relationship between personal factors and breast cancer screening behaviour". The results of the tests are presented below:

Hypothesis 1: There is a positive relationship between immediate environmental factors and breast cancer screening behaviour.

A correlation test of significance on the relationship between immediate environmental influence and breast screening behaviour produced a proof of significant relationship between the two variables. At a moderate correlation value of 0.551 produced a significant value of 0.000 where ($p < 0.05$). This means that respondents who have had their immediate environment impacted on them positively (eg. receiving support and encouragement from friends and family on breast cancer screening) do significantly adhered to positive breast cancer practices (eg. reporting immediately to the appropriate authority whenever a change in the breast is detected) than their counterpart respondents who have been less positively impacted by their immediate environment. Hence, affirming the hypothesis. This is shown in table 5.7.

Table 5.7: the summary of hypothesis 1.

		Immediate Environmental Influence	Breast screening
Immediate Environmental Influence	Pearson R	1	.551
	Sig.(P)		.000
	N	285	283
Breast screening	Pearson Correlation	.551	1
	Sig. (P)	.000	
	N	283	285

Source: Field study 2015

Hypothesis 2: There is a positive relationship between wider external environmental factors and breast cancer screening behaviour.

In testing for the hypothesis “there is a positive relationship between wider environmental factors and breast screening behaviour”, the study found a weak-moderate but a significant ($r = 0.432$, $p < 0.05$) correlation between wider external environmental factors and behaviour change. This result indicates that as the wider external environmental factors favourably impacting on respondents, their positive behaviour towards breast cancer improves moderately and this means that the hypothesis is supported. The table below in 5.8 summarises it.

Table 5. 8: the summary of hypothesis 2.

		External Environmental Influence	Breast screening
External Environmental Influence	Pearson R	1	.432
	Sig. (P)		.000
	N	285	284
Breast screening	Pearson R	.432	1
	Sig. (P)	.000	
	N	284	285

Source: Field study 2015

Hypothesis 3: There is a significant positive relationship between personal characteristics and breast cancer screening.

In fine, the researcher sets to evaluate the relationship between respondents' personal influencing attributes of breast cancer deeds and their screening behaviour. Results obtained from the correlation test were found to be in consistent with the claim that "there is a significant positive relationship between personal influence and screening behaviour". A strong positive correlation coefficient value of 0.749 was obtained at a significant level of 0.000 where (p) was found to be less than the test statistic of (0.05). This finding suggest that respondents' positive attitude towards breast cancer issues improves at a high rate when personal influences improve favourably. See table 5.9 for the summary.

Table 5. 9: the summary of hypothesis 3

		Personal Influence	Breast screening
Personal Influence	Pearson R	1	.749
	Sig. (P)		.000
	N	285	284
Breast screening	Pearson R	.749	1
	Sig. (P)	.000	
	N	284	285

Source: Field study 2015

5.5 Discussions of findings

The sample distribution focused on women with those within the ages of 35-44 (36.8) forming the majority of the respondents, followed by those from 45-54 (28.1). This finding is in line with Ohene-Yeboah & Adjei (2012), who reported that in Ghana, most women who are diagnosed with breast cancer are within the ages of 40 and 49. In terms of education, those with A-Level/SHS recorded the highest of 43.5% followed by JHS and primary levels of 21.8% and 16.8% respectively. This is also in line with Ohene-

Yeboah & Adjei (2012), who linked low levels of formal education with a lack of awareness of early warning signs and screening behaviour. Considering occupation and monthly income, the majority of the respondents (43.2%) were self-employed while 21.1% formed the unemployed group. These figures are linked to monthly income where the majority (43.8%) receive GHC101-GHC500 followed by GHC501-1000 (28.1%). Those who receive over GHC1000 were the least (11.2%). These findings support Opoku et al, (2012) who linked high poverty rate to the low rate of breast screening. The study also found that Muslims were the majority of 51.9% followed by Christians of 45.3%. This supports literature that people's religious beliefs can influence their behaviour (Avong, 2000). About the issue of whether or not women screen their breast, the majority (57.1%) said no and 42.1% responded yes. This affirms literature that breast screening is low in Ghana (Mena, Wiafe & Sauvaget, 2014). The types of breast screening exercise reported that most women screen their breast by themselves (54.2%), followed by clinical examination (41.7%) and mammogram (4.1%). This is proven right as the cost of mammography is very high in Ghana (NPC, 2011). Finally, the number of times breast screening was done in a year revealed that 47.7% of them do it once per year, and 20% of them reported that in a year they do not do. This also support literature that breast screening practice in Ghana is low (Mena, Wiafe & Sauvaget, 2014).

These have practical implications for social marketers and that with the adaptation of the social cognitive framework (Bandura, 1997), these issues can be addressed to encourage women to screen their breast and at the required interval of time.

Research Objective I:

The first objective was to establish how the immediate environmental factors influence breast screening behaviour in Ghana. A review of literature indicated immediate environmental factors as a prerequisite for behaviour change (Bandura, 1997). The immediate environment as one of the constructs in the framework consists of the influence of friends, family, the local community and significant others (Bandura, 1986, 1997; MacFadyen et al., 1998). The framework put these factors together to form the construct of the immediate environment and collectively was tested.

The test statistics showed an aggregate mean score of 2.96, representing a moderate approval to the statements, with the mean scores ranging from 1.83-3.56. Further, the analysis of the Pearson's correlation test showed a positive relationship between immediate environmental factors and breast screening behaviour. It showed a moderate correlation value of 0.551 and a significant value of 0.000 where $p < 0.05$. The correlation value of 0.551 shows about 55% prediction in breast cancer behaviour with an improvement in immediate environmental influence.

Research Objective II:

The second objective was to establish how wider environmental factors impact on breast screening behaviour. The framework revealed the wider environmental factors as influencing behaviour change (Bandura, 1986, 1997). The construct also identified social norms, cultural factors, structural issues and socio-economic factors collectively determining this construct (MacFadyen et al., 1998; Wilson & Gilligan, 2005). The analysis of the Pearson's correlation indicated a weak positive relationship between the wider external environment and breast screening behaviour. The correlation test produced a correlation value of 0.432 at a significance of 0.000 where $p < 0.05$. The

aggregate mean was 3.23 and the mean scores ranged in-between 1.93-4.50, with free breast cancer screening on cancer days (4.50) exerting higher influence followed by the media (3.46) and that order. The correlation value of 0.432 is an indication that breast screening behaviour will improve by 43% with the improvement in external influence.

Research Objective III:

The last objective was to establish the significant relationship between personal characteristics and breast screening behaviour. The descriptive statistics of variables showed a mean score ranging from 3.60-3.99, with an aggregate average mean of 3.80. This clearly indicates that there is generally high approval towards favourable personal influencing factors. Findings of the Pearson's correlation analysis concerning this objective also revealed a strong positive relationship between personal factors and breast screening behaviour. The results showed a correlation value of 0.749 at a significance of 0.000 and $p < 0.05$ indicating that breast screening behaviour will improve remarkably (74%) if individual's personal characteristics such as education and self-efficacy improve. This construct in the framework was identified as influencing behaviour change and the factors which combined to form this construct are education, self-efficacy, and skills and aspirations, goals and needs (Bandura, 1986, 2011; Maibach & Cotton, 1995). All these factors collectively constitute personal characteristics, influencing behaviour change.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter concludes the study. It begins with a summary of the research which includes previous literature reviewed and findings with interpretations presented in chapter five. This study identifies and describes the factors that are likely to influence breast cancer screening in Ghana. It also highlights the critical lessons drawn from the study. The chapter concludes with implications for social marketers and recommendation for further studies.

6.1 Summary

The aim of the study was to test the factors that are likely to influence breast cancer screening in Ghana by adapting the social cognitive theory as propounded by Bandura (1986). It also sought to know the relationships between the constructs of the framework and behaviour change. In order to achieve these objectives, data were collected through questionnaires from three hundred women in Madina market, Accra, Ghana. Out of which two hundred and eighty five were valid for analysis. The variables that constituted the constructs used in the study were examined for their central tendency using mean and standard deviation. Pearson's correlation was used to estimate the nexus between the dependent variable and the independent ones.

6.2 Major Findings

The major findings of the study have been outlined below:

First, the study discovered that, out of 285 respondents, 165 of them representing 57.9% do not screen their breast at all. Again, when respondents were asked the number of times they screen their breast in a year, the result proved that, 56 out of 120 respondents were screening once per year and 24 (20%) of them were not screening per

year. The results also showed that those who screen their breast twice a year were 25 (20.8%) and three times or more, 15 (12.5%). This means that, out of the total of 285 respondents, only 40 women (15+25), representing 14% examine their breast the right way as recommended by social marketers of at least twice a year.

On the issue of the type of breast screening exams, the study found that, respondents adhered to self-breast exams (54.2%) and clinical examination (41.7%) than the use of mammogram (4%).

Also, with regards to occupation, the study revealed that self-employed respondents were the highest (43.2%), followed by the unemployed of 21% with monthly income range of GHC101-GHC500 (43.8%). This was followed by those who receive GHC501-GHC1000 (28.1%) as monthly income.

In terms of educational level, the study discovered that, 124 out of 285 respondents had A-Level/SHS education which was followed by 48 respondents with primary level of education. Only 43 out of the total respondents of 285 had tertiary education.

The study also discovered that, in terms of immediate influences, the advice of health workers was rated higher which was followed by the activities of breast cancer organisations. However, the influence of the family was rated very low, as far as breast screening is concerned.

Another major finding which is at the heart of this study is that, in examining the external factors which influence breast screening in Ghana, the major influence was seen to be free organisation of breast screening. This was rated higher followed by the education on breast screening and also the influence of the media.

Moving to the personal factors which influence breast screening, the study found that, most women have higher fear in locating lump in their breast, and a number of them do not screen their breast because they do not know how to do it.

Finally, the major findings on breast screening behaviour discovered that, most women are not screening their breast as normally expected, and a lot more have not examined their breast for the past two years. The study also found that, most women do not visit the health centres to screen their breast.

6.3 Conclusions

This study adapted the social cognitive theory (Bandura, 1986) as a framework to understand the factors that are likely to influence breast cancer screening in Ghana. The study formulated three objectives based on the constructs, and hypothesis based on the objectives. The answers to the three research objectives indicate that all the three factors or antecedents; immediate environmental factors, wider environmental factors and personal characteristics, were found to have a significant relationship with behaviour change. This result confirms that all the three factors result in behaviour change as explained by the framework. Even though the extent of how these constructs relate to behaviour change differ according to the analysis, they all had positive relationship with breast screening behaviour. This means, all the three constructs are good predictors of behaviour change and this has strategic implications for social marketers and policy makers.

6.4 Recommendations

Research generally has both managerial and theoretical implications. Managerial implications provide insights for practitioners while theoretical and research implications provide insights that form the bedrock of future research. It is within these

implications that the recommendations for this study are provided. The study therefore makes the following recommendations based on the major findings:

6.4.1 Recommendations for practice:

- i. Social marketers in an attempt to designing interventions for their social campaigns should consider adopting the social cognitive framework as it gives insight into why a particular behaviour is adopted or not.
- ii. It is recommended that, social marketing intervention programmes should be designed to encourage more women to screen their breast and to do so two or three times in a year.
- iii. It is also recommended that, social marketing intervention programmes should focus on educating women in Ghana on the screening methods, especially, how to screen the breast by themselves and possibly, clinical exams, since mammogram is expensive and their incomes do not support that.
- iv. In terms of occupation and income, it is recommended that, intervention programmes should consider reducing the cost of breast screening and even making it free to encourage more women to screen their breast since many women live on low income.
- v. On educational level, it is proposed that since formal education is low in Ghana, social intervention programmes should focus on using the local dialects in their campaigns for better understanding of the issue.
- vi. Taking into consideration the level of immediate environmental influences, it is recommended that, social marketing campaigns should target and partner with health workers and breast cancer organisations since they exert great influence on breast screening.

- vii. Since free breast screening, education and media play major role in influencing women, it is recommended that, social marketing campaigns should target and partner with the various media houses for more education on breast screening.
- viii. In terms of personal influence, it is recommended that social campaigns should focus on reducing breast screening fear and rather give women hope to screen their breast since breast cancer can be rendered to a complete cure if it is reported early.
- ix. It is also recommended that, intervention programmes should take into account an attempt to influence upstream forces. For example, influencing government and policy makers to expand facilities to other parts of Ghana to encourage women to screen their breast.
- x. Finally, on breast screening behaviour, it is recommended that, social marketing campaigns should highlight the risks of not screening the breast within the normal times and the benefits of screening the breast as well.

6.4.2 Recommendations for future research:

- i. This study was conducted in Accra, Ghana, and can be replicated in other jurisdictions to confirm the findings or otherwise. It is therefore recommended to be replicated in other countries with similar economic conditions as Ghana.
- ii. Finally, other studies can employ different methodology that may help unearth information that may not have been seen in the course of this study. This new methodology may be mainly qualitative in nature since this study adopted a quantitative approach.

6.5 Contributions of the study

This study contributes both to knowledge and practice:

1. In terms of knowledge, the study has contributed to the extension of the application of the social cognitive theory to influence breast cancer screening in Ghana.
2. In terms of practice, the study recommends strategies to policy makers and the government to design appropriate interventions to influence breast cancer screening in Ghana.



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APPENDIX 1: QUESTIONNAIRE

UNIVERSITY OF GHANA

UNIVERSITY OF GHANA BUSINESS SCHOOL

DEPARTMENT OF MARKETING & CUSTOMER

MANAGEMENT

RESEARCH QUESTIONNAIRE

The researcher is a Master of Philosophy (MPhil) marketing student at **the University of Ghana Business School**, Accra. The researcher seeks to ascertain *social marketing: using social cognitive theory to influence breast cancer screening in Ghana*. This is in partial fulfillment of requirements leading to the award of a master of philosophy degree in marketing. Information provided for the purposes of this research will be treated confidentially and used for academic purposes only. Please take a few minutes to fill out this questionnaire.

Section A: General Information on Respondent

1. Respondent's age: 18-24 [] 25-34 [] 35-44 [] 45-54 [] 55-65 [] 65-
above []

2. Marital status: Married [] Single [] Divorced [] Widowed []

3. Educational Attainment: No Education [] Primary Education [] JHS []

A-Level/SHS [] Tertiary []

4. Occupation: Unemployed [] Self-employed [] Employed []

Retired [] Student []

5. Monthly Income: Less than GH¢100 [] GH¢ 101- GH¢500 [] GH¢501-
GH¢1000 [] Over GH¢1000 []

6. Religion: Christian [] Muslim [] Traditionalist [] Atheist [] Others []

7. Have you ever done breast screening? Yes [] No []

8. What type of breast cancer screening exercise? Self-breast exams [] Clinical breast
exams [] Mammogram [] others (specify).....

9. How many times do you do breast exams in a year: Once per year [] twice per year
[] Three/more times per year [] none [] others
(specify).....

Section B: Behavior change influences

On a scale of 1-5, please indicate by ticking [√] the level to which you agree or disagree
with the following statements. Strongly Disagree (SD) = 1 Disagree (D)

= 2

Neutral (N) = 3

Agree (A) = 4

Strongly Agree (SA) = 5



Immediate environmental influence

No	Statement	1	2	3	4	5
.		SD	D	N	A	SA
10	My friends encourage me a lot to engage in breast cancer screening exercise					
11	I receive support and advice from my parents/husband regarding breast cancer screening					
12	My family is concerned about breast cancer screening because they have history with breast cancer					
13	My religious affiliation talks and encourages me to involve in breast exams					
14	I am influenced by the activities of breast cancer organizations					
15	My workplace is concerned and regularly talks about breast cancer screening and related issues					
16	I have been influenced by the advice of a health worker on breast screening before					
17	I am sure the people around me engage in breast screening					



External environmental influence

No.	Statement	1 SD	2 D	3 N	4 A	5 SA
18	For me, the cost involved with breast cancer screening is very high					
19	The media is very instrumental when it comes to providing education on breast cancer issues					
20	I believe breast cancer screening issues are intensively promoted in Ghana					
21	There are enough structures or hospitals for breast cancer screening exercise					
22	Issues about breast are regarded as forbidden subject in my culture					
23	Breast screening exercise and education are regarded as important in my society					
24	Free breast cancer screening exercise should be organized as part of the activities that mark cancer day celebration in Ghana					
25	I think the government is concerned about breast cancer screening issues					

Personal influence

No.	Statements	1 SD	2 D	3 N	4 A	5 SA
26	I have received education on how to examine the breast and what to look for					
27	I think breast cancer screening is difficult and demands time					
28	I have high fear in locating lump in my breast					
29	I immediately report any changes in my breast as early as possible					
30	I don't screen my breast because I don't know how to do it					

Section C: Behavior change

On a scale of 1-5, please indicate by ticking [√] the level to which you agree or disagree

with the following statements. Strongly Disagree (SD) = 1 Disagree (D)

= 2

Neutral (N) = 3

Agree (A) = 4

Strongly Agree (SA) = 5

No.	Statements	1 SD	2 D	3 N	4 A	5 SA
31	I have not examined my breast on a regular basis					
32	I regularly visit the health center to screen my breast					
33	I have personally educated women to screen their breast					
34	I immediately report any changes in my breast to my doctor					
35	I do not screen my breast regularly as it is expected normally					

THANK YOU

