EXPLORING THE BUSINESS MODELS OF PRIVATE HEALTH CARE PROVIDERS IN AN EMERGING AFRICAN MARKET CONTEXT

THESIS

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DECLARATION

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

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

Supervisor's

Signature:**……..**

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Date:

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ABSTRACT

A review of the private health sector of some economies shows the growing use of business models, by health care providers in the sector, to improve health care provision whilst simultaneously increasing financial performance. This growing use has been based on the ability of business models to engage the resource-based and market-based principles, which have been shown to provide a sustainable competitive advantage for firms in diverse industries.

Emerging African economies like Ghana could leverage business models to improve the performance of their private health sectors. However, the application of business models is still unclear in these countries. This study thus sought to investigate how Ghanaian private hospitals apply business models, with reference to Alex Osterwalder's business model canvas. Findings were analyzed using the directed content analysis method.

The results of the study showed the evidence of resource-based and market-based principles in Ghanaian private hospitals' application of business models. The study also showed the existence of different business models within the Ghanaian private sector based on observed differences in the elements being utilized by each hospital. There were peculiar findings such as the reliance of private hospitals on the public sector for the provision of more advanced medical services, training and research; even as private hospitals are expected to be more efficient resource managers

From the findings, further research is directed at investigating value flows between various blocks of the business model canvas and their impact on the Ghanaian private health sector.

Keywords: Business model, Resource-based, Market-based, Ghanaian private hospitals

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CHAPTER ONE: INTRODUCTION

Background

There is a well-understood correlation between health and the economy such that as the health of a nation's citizens improves so does the economy of the nation (Collins, 2015). Healthier citizens live longer, are more productive and save more, thus improving the overall economic position of their country. Countries that are able to build strong healthcare systems should, therefore, have stronger economies. Among the different economies of the world, it is not surprising that developed economies possess relatively stronger health systems than developing economies (Collins, 2015).

However, what is more interesting is how the healthcare systems of developing or emerging economies are evolving to support the rapid growth in their economies. Emerging economies, a number of them in Africa, have some of the fastest-growing populations in the world today (Koesterich, 2015). Hence, their need for a strong health sector is imperative to sustaining their populace. Understanding the evolution of healthcare provision, approaches and models being employed, to achieve sustainable healthcare systems in these spaces, is the focus of this work.

In most countries, healthcare has been largely provided by the public sector. Unfortunately, its services are usually fraught with inefficiencies, partly due to the lax business and operational systems that governmental institutions often employ. This is particularly evident in African countries whose public sectors are stricken with high levels of corruption (Appleton, Hoddinott, & Mackinnon, 1996). As a result, the private sector has begun playing a more dominant role in healthcare provision. Consequently, given the nature of private business, the private health sector has been observed to

provide more efficient health care services whilst simultaneously reaping significant financial benefits (International Finance Corporation [IFC], n.d.).

One of the major factors that have contributed to the success of many private health care providers is their use of effective business models. Business models, although a novel concept in the health industry, have been gaining a lot of traction in recent times. They have helped transform existing poorly performing health structures into more effective and sustainable ones, as well as create innovative techniques to increase nation-wide access to health care. This trend has significantly revolutionized health care provision in the private health sectors of countries such the United States, United Kingdom, India and even emerging African economies like Kenya (Townsend, 2013).

Problem Statement

For developing countries and some specific emerging African economies like Ghana, it is still unclear how business models have factored into their private health care sectors. For Ghana in particular, there has been minimal research conducted pertaining to the existence and application of business models in the private health sector. Moreover, given that many Ghanaian health practitioners lack the business skills and management expertise to run their businesses effectively and efficiently (Ministry of Health [MOH], 2012), the application of business models in the Ghanaian private health sector may be highly unlikely. Concurrently, given the relatively weak performance of the sector, in comparison to the above-listed countries' private health sectors, and the fact that business models have created significant impact in their respective private health sectors, it is important to investigate how business models factor in the Ghanaian private health sector.

Objectives of the Study

The main objectives of this research study are;

1. To identify business models, and their defining characteristics, present amongst Ghanaian private health care providers and make related recommendations, to new and existing entrants in the industry, on how to structure their businesses or the improvements to make to their existing models.

2. To identify on what basis different Ghanaian private health care providers choose different models to implement and hence, guide new industry entrants on what type of business model they should implement.

Theoretical Framework

The research study is based on the concept of business models, as proposed by Alex Osterwalder, with the underlying principles of the resource-based and market-based view as sources of competitive advantage for firms. Alexander Osterwalder's (2010) business model canvas was used extensively as the basis for research. The work of Wernerfelt (1984), Barney (1991;1995), Makhija (2003) and Porter (1979) were also closely analyzed to give an in-depth understanding of the literature underpinning the study.

Research Questions

The following questions guided the research study conducted;

1. How do health care professionals, in the Ghanaian private health sector, create, deliver and capture value from the perspective of the business model?

2. What factors explain the differences between the business models being used amongst Ghanaian health care professionals?

Research Relevance

The findings of this study have the potential to improve the performance of the Ghanaian private health sector, as health administrators and chief executive officers (management & executives) can improve their existing business models (if necessary), by making adjustments, based on lessons learned from the models of other health care providers in the space. Furthermore, potential stakeholders might be interested in transfering innovative business models, from other countries with similar contextual elements to Ghana, to the Ghanaian private health sector in order to improve the efficacy of existing Ghanaian health business models. The findings from the study would thus serve as market research that they would capitalize on. Finally, through the lens of effective business models, that can be leveraged to reap massive financial and social benefits, this study would highlight the Ghanaian health sector as an investment opportunity for potential investors.

CHAPTER TWO: LITERATURE REVIEW

Overview of the Ghanaian Health Sector

Regarded as an 'innovator in National Health Insurance' and ranking higher in most primary health care provision indicators, specifically immunization, the Ghanaian health sector is noted to be one of the best performing compared to its neighbors across the West-African sub-region (Aseweh Abor, Abekah-Nkrumah, & Abor, 2008; Mills, Ally, Goudge, Gyapong & Mtei, 2012; The World Bank, 2015). Despite the accolades, it is relatively small, accounting for only 5.1% of the nation's gross domestic product, with a total of 3217 health facilities and 45,330 health workers as of 2009 (Ghana Health Service [GHS], 2010). Nonetheless, it is composed of three main sectors namely; (1) the public sector; (2) the private sector and (3) the traditional sector.

The public sector is the predominating sector of the entire industry with the main focus of providing nationwide primary health care services (Mills et al., 2012). The private sector and traditional sector, on the other hand, are comparatively smaller and are mostly constrained to the urban and rural areas respectively. The health system centers around the Ministry of Health, which operates within a hierarchical organizational structure and regulates all sectors within the industry (Aseweh Abor et al., 2008).

Like most African countries, the Ghanaian health sector is plagued with a variety of inefficiencies. Research points to low health worker-to-patient ratios and demotivated health workers as being some of the root problems of the sector (Alhassan, Spieker , van Ostenberg , Ogink , Nketiah-Amponsah & de Wit, 2013; Nyonator, Dovlo, & Sagoe, 2005; Sakyi, 2008). Whilst Nyonator et al. (2005) deduced that the low ratios are caused by the excessive brain drain occurring in the sector, a study by Alhassan et al. (2013) affirmed that the high level of dissatisfaction amongst Ghanaian

health workers also negatively affects the performance of the sector. Other issues plaguing the sector are a lack of funding, lack of health infrastructure, inequitable geographical distribution of health care provision and weak management systems (Adomah-Afari, 2015; Akazili, Garshong, Aikins, Gyapong, & McIntyre, 2012; Sakyi, 2008).

Based on the challenges stated above, it is evident that the public sector lacks the capacity and efficacy to deal with the vast array of health needs of the Ghanaian population. This thus calls for the need for mediation from the private and traditional health sectors, as well as a review of existing practices of the entire Ghanaian health sector to develop more effective means of meeting the country's health needs.

The Ghanaian Private Health Sector

The private healthcare sector provides a tremendous amount of support for the health of the nation in mitigating the variety of inefficiencies noted above. Based on the Ghana Living Standards statistics, the sector produced more than half (55%) of all services used by consumers and continues to show positive growth trends (MOH, 2012). The sector comprises of five main general business providers namely health service providers, retailers and distributors, medical education and training institutes, financing entities and manufacturing (IFC, n.d.). The health service provider division, however, is the largest in the sector with a total of 1,277 facilities (GHS, 2010).

In an additional effort to address the inefficiencies of the Ghanaian public health sector, Ghana also supported the World Health Assembly's bid in 2010 to promote more public-private partnerships in the health sector. The country has a number of public-private health sector interventions running under the Ghana Private Health Sector Development Policy instituted in 2003 (MOH, 2012). These interventions center

on monitoring (gathering information on the activities of the private sector), information provision/ technical assistance, regulation and financial assistance (MOH, 2012).

Nonetheless, like the broader health sector, the private health sector is characterized by its own set of unique challenges, ranging from inadequate resource flows to weak policy and legislative structures, poor management and reporting systems and minimal interactions between the public and private health sector (MOH, 2012). This has contributed to a generally weak performance of the Ghanaian private health sector as well.

The Use of Resource-Based and Market-Based Principles to Improve Private Firm Performance

A review of other private health sectors (The United Kingdom, United States of America, India, Kenya, etc.) shows that most have been able to overcome similar challenges through the institution of innovative business models (International Finance Corporation, 2014; Townsend, 2013). This use of business models has been based on the successfully observed impact of resource-based and market-based principles (the underlying principles of business models) in the operation of various private sector businesses. These principles, which stem either from the effective use of a firm's capabilities, skills and resources and or a firm's external market forces, have proved to be the root of competitive advantage and sustainable effective firm performance in a variety of industries (Steininger, Huntgeburth , & Veit , 2011).

With the offspring of this knowledge (application of business models within the private health sector), more investors have become increasingly interested in investing in the private health sector of rising African economies (IFC, n.d.). This interest is based

on their intention to apply similar principles by either transferring pre-existing successful business models based on similar factors, experimenting with new ones or merging both options to make massive financial and social returns. To understand the effective use of capabilities, skills and external market forces in firms, the theories of the resource-based and market-based view of the firm are discussed.

The Resource-Based View of a Firm

The resource-based view of a firm stipulates that a firm's competitive advantage is derived from identifying and effectively utilizing particular internal resources (tangible and intangible assets) of the firm (Barney, 1991). The view proposes that a firm with greater competitive capability (resources) will prove more successful in an emerging economy (Makhija, 2003). In the given context, tangible assets constitute assets that are physical in nature which usually degenerate over time and have a limited capacity such as machinery. Intangible assets or skills, on the other hand, such as brands or knowledge, might be unlimited in capacity and can hold their value over time, even increasing in value if maintained properly (Miller & Shamsie, 1996; Prahalad & Hamel, 1990; Steininger et al., 2011).

The view took its origins from the contributions of Smith (1723-1790) and Ricardo (1772- 1823) on production and input factors such as land, capital and labor (Steininger et al, 2011). Penrose, considered the first official author on the resource-based view, defined a firm as a collection of productive resources whose size is best gauged by some measure of the productive resources it employs (Penrose, 1995). However, the originators of the theory are largely considered as Wernerfelt (1984) and Barney (1995).

Wernerfelt first proposed that a firm's superior performance stems from the strategic resource base of the firm (Wernerfelt, 1984). Thus, not all resources create competitive advantage for a firm but only a select few with particular characteristics. Barney (1991; 1995) further proposed the VRIO framework for ascertaining which of a firm's resources would actually create competitive advantage. It encompassed determining whether a resource was; (1) valuable; (2) rare; (3) imperfectly imitable and (4) not perfectly substitutable. Barney (1991; 1995) argued that if a resource received a yes response to all questions then it had the ability to create a sustained competitive advantage for the firm. Table 1 below shows the VRIO framework Barney created and how the different responses to the various questions would result in different forms of competitive advantage to the firm.

Table 1

VRIO- Framework to Identify Important Resources (Steininger et al, 2011, adapted from Barney (1991; 1995))

Valuable?	Rare?	Costly to Imitate?	Exploited by Organization?	Competitive Applications?
No	-	-	No	Competitive Disadvantage
Yes	No	--		Competitive Parity
Yes	Yes	No		Temporary Competitive Advantage

Yes	Yes	Yes	Yes	Sustained Competitive Advantage

Further studies based on Barney's theories, resulted in a deduction that for most firms, competitive resources (resources that are able to create sustained competitive advantage) stem from its intangible organizational assets or skills such as human capital, in-house knowledge of technology, etc. (Farjoun, 1994; Helfat, 1994; Maijoor & Van Witteloostuijn, 1996; Wernerfelt, 1984). Also, it was deduced that particular resources rise in importance in rapidly changing industry environments (Brush & Artz, 1999; Chakravarthy, 1996; Majumdar, 1998). For instance, Henderson and Cockburn (1994) found that research competence is the enduring resource in the dynamic environment of the pharmaceutical industry.

Nonetheless, it is important to note that Barney's VRIO framework has gaps pertaining to questions such as resources that may wear off over time but might be amended, potential interrelations between the resources of a firm and which sources of a firm to analyze, since it focuses on single resources rather than a systematic analysis of the firm in its environment (Steininger et al., 2011).

This concept of resources being central to the productivity and effective performance of a firm ties directly within the phenomenon of business models. Within business models, the key skills and capabilities of a firm are analyzed to discover their contributions in creating value for the firm. Furthermore, the representation of these resources through a business model creates a constant awareness and analysis of these resources. This is particularly essential given their (resources) importance in the rapidly changing industry environments that usually characterize emerging economies.

The Market-Based View of a Firm

The market-based view of a firm focuses on the competitive situation characterizing a firm's external product markets as the source of the firm's competitive advantage (Makhija, 2003). The theory proposes that a better end-product market position results in above-normal future returns. The view stems from the core principles of industrial organization, which discusses the role of favorable industry environments for above-normal profitability of firms (Porter, 1979). In the market-based view, however, the focus is more narrowed to the firm's sources of market power determining its relative performance.

The three most frequently mentioned sources from all literature on the topic are monopoly, barriers to entry and bargaining power (Grant, 1991). A firm in a monopolistic position evidently has a high market position and would consequently exhibit greater firm performance. Likewise, a firm in an industry with high barriers to entry for new competitors would also exhibit greater long-run performance due to the low extent of competition. Finally, higher bargaining power in the industry, relative to suppliers and consumers, would create a higher firm performance as this denotes that constituents have fewer alternatives within the industry to pursue (Makhija, 2003).

Studies have also shown that since the structural attributes of industries change very slowly (Caves & Porter, 1980; Geroski & Masson, 1987; Mueller, 1986), the market power of firms erodes slowly as well. Hence, the competitive advantage or high firm performance observed from a firm's external market position spans over a long period of time. Moreover, even in changing environments, the past market power of a firm is able to support the firm in the new environment to regain its former high position amongst new competition (Makhija, 2003).

Just as the resource-based view is practically evident through the business model, so is the market-based view. The business model emphasizes key market-based principles which create significant value for the firm. With the increasing amount of influence external market forces have proven to show within firms, the business model adequately ensures that these forces are identified and constantly reviewed to sustain competitive advantage, especially in the dynamic industry environments of emerging economies.

Application of Resource and Market-Based Principles to Business Models

Business models have often been linked to a firm's practical application of resource-based and market-based principles (Hedman & Kalling, 2003; Steininger et al., 2011). This has been primarily evident through the components of the business model canvas (discussed in more detail further in this paper) which have been found to have very close associations with both the resource-based and market-based view.

Steininger et al. (2011) purposely conducted a study to investigate the existence of these associations by applying content analysis. Their study showed that two of the business model (discussed later) components (customer segments and revenue streams) were rather strongly associated with the market-based view whiles four other components (value proposition, channels, customer relationship and cost structure) showed medium links to the market-based view. The remaining three components (key resources, key activities and key partners) however showed very strong links to the resource-based view. Their findings thus confirm that there are strong interrelations between the business model and the resource and market-based view. Hence, this further grounds the use of business models as a practical application tool for firms

seeking to incorporate resource and market-based principles into their operations to attain competitive advantage and improve their performance.

What is a Business Model?

Business models have been in existence since pre-classical times, although the concept became more prevalent with the advent of the Internet in the mid-1990's (Teece, 2010) and has been gathering momentum since. Over the years, studies on business models point to no consensus on the definition, nature, structure and evolution of business models, with various researchers defining the concept based on their various interests. Table A1 in Appendix A shows the various definitions of the term 'business models' in selected literature over the past two decades.

Nonetheless, a recent study conducted by (Zott, Amit , & Massa , 2011), brought some structure to the concept, through the analysis of numerous pieces of literature on business models. They deduced that business models can be grouped under three general frameworks namely; (1) e-business and the use of information technology in organizations; (2) strategic issues, such as value creation, competitive advantage and firm performance and (3) innovation and technology management. Furthermore, their study showed four consistent themes amongst all business model definitions; (1) as a new unit of analysis; (2) offering a systematic perspective on how to "do business"; (3) encompassing boundary-spanning activities and (4) focusing on value creation as well as capturing value. This study shows that as diverse as the concept (business models) is, it still has dominant characteristics which enable it to transcend across a variety of sectors with a specific definition.

Likewise, there has been tremendous progress in the practitioner community with regards to the definition and use of business models. One such effort was led by

Alex Osterwalder, business model innovator and co-founder of the business model canvas, who is regarded as one of the most relevant references on the topic. In his Ph.D. thesis on the 'Business Model Anthology', he broadly defined a business model as "a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams (Osterwalder, 2004, p. 15)." He derived the definition from conducting extensive literature reviews on the topic, in addition to the findings of his own studies on the business model.

However, in his renowned book 'Business Model Generation: A Handbook for visionaries, game changers and challengers', he presents a more simplified definition of the concept as "a model describing the rationale of how an organization creates, delivers and captures value (Osterwalder & Pigneur, 2010)." This definition is best related to the current study being conducted as it captures business models in the framework of organizational operations – a direct link to what this study seeks to investigate. *Figure 1.* below shows an illustration of the renowned business model canvas created by Alexander Osterwalder (2010).

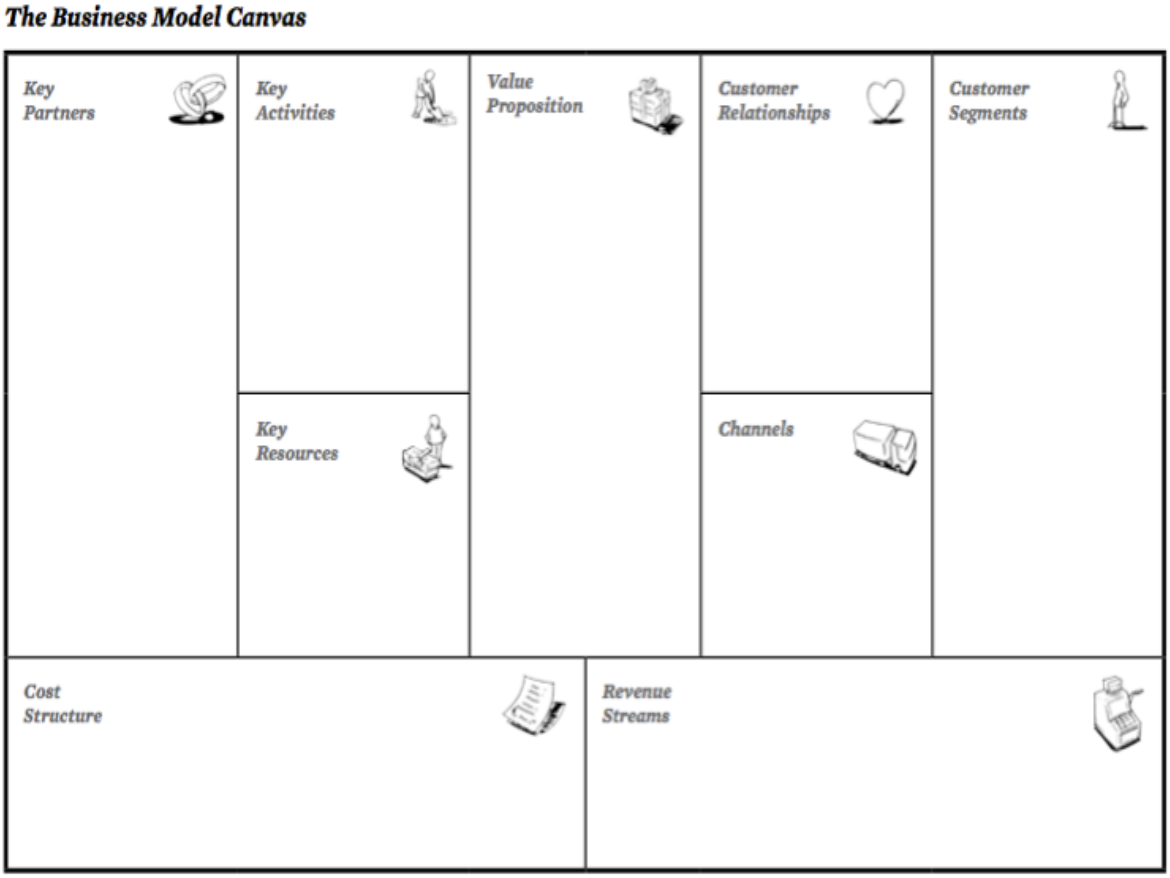

Figure 1. Business Model Canvas (Osterwalder & Pigneur, 2010)

Characteristics of a Business Model

Beyond the definition, it can be deduced that business models have a set of unique characteristics, as mentioned earlier when linking business models to the resource and market-based views. Among the different research efforts on defining these characteristics is the work of Morris, Schindehutte and Allen (2005), who studied various perspectives of business models found in literature. They concluded that a well-formulated business model must address six questions namely; (1) how will the firm create value; (2) for whom will the firm create value; (3) what is the firm's internal source of advantage; (4) how will the firm position itself in the market place; (5) how will the firm make money and (6) what the entrepreneur's time, scope, and size

ambitions are (Morris et al., 2005).

Concurrently, Osterwalder's business model canvas also constitutes nine building blocks namely customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structure (Osterwalder & Pigneur, 2010). Table 2 below depicts the definitions of the various building blocks of the canvas. An analysis of these two studies show that both findings are closely interrelated, thus affirming that business models have a distinctive set of characteristics that cut across the broad body of literature on the topic.

Table 2

Description of Business Model Concepts (Adapted from Steininger et al., 2011)

Business Component	**Description**
Value Proposition	Gives an overall view of a company's bundle of products and services
Key Partners	Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialize value
Key Activities	Outlines the activities necessary to execute the company's business model
Key Resources	Outlines the competencies necessary to execute the company's business model

Channels	Describes the various means of the company to get in touch with its customers
Customer Segments	Describes the segments of customers a company wants to offer value to
Customer Relationships	Explains the kind of links a company establishes between itself and its different customer segments
Cost Structure	Sums up the monetary consequences of the means employed in the business model
Revenue Streams	Describes the way a company makes money through a variety of revenue flows and pricing models

Business Models in the Health Sector

Although business concepts are a relatively novel notion in the health industry, an increasing number of entrepreneurs in the industry have begun to introduce the phenomenon into their health care practice (IFC, n.d.; Morgon, 2014; Townsend, 2013;). Consequently, this strategy has proved quite successful, positively influencing both the individual organizations adopting it and the health sectors of their respective countries. Currently, the two main business model theories dominating the space are Alexander Osterwalder's traditional business model canvas and Kevin Riley's model

H (Morgon, 2014). "The model H involves using a visual language for health care system thinking, problem solving and solution design (Morgon, 2014)." Each of these concepts, applied independently or in a combined manner, has been influential in increasing both the access and quality of healthcare in both developing and developed countries. It is also observed that each of these models was tailored specifically to suit the unique conditions of each of these economies, an imperative characteristic for the success of this strategy.

In the United States for instance, Sarrel Dental has employed a unique business model aimed at "providing quality dental and eye care to children in underserved communities, while minimizing the cost to the United States' main public health insurance program. The program has been so successful that the organization has seen thirty consecutive quarters of revenue growth, and one clinic has expanded to fourteen—five of which now also offer optical services (Townsend, 2013)." Likewise, in India, over the past decade, four innovative business health models have been spread across its various types of health care institutions, specifically in the southern states (IFC, 2014). These models have been grossly successful in increasing both revenues and health care impact in the country.

It is important to note that innovative business models are also becoming a trend in African countries, specifically Kenya, where two new models are transforming rural health care provision in the country (Townsend, 2013). In Access Afya's efforts to increase health care access in Kenya, the organization has built a strong network of high-tech paperless health centers in Kenya's slums. These mini clinics create electronic medical records for every patient and use SMS (short message service) to send appointment reminders, medication instructions and follow-up on referrals to larger health facilities and specialists. In just its first six months of operation, Access

Afya has enrolled more than 500 patients, with all patients reporting significant improvements in their health condition within five days of their appointment (Menke, 2012). With this model's growing popularity and successful results, it is guaranteed to create a huge positive impact in the Kenyan health sector.

CHAPTER THREE: METHODOLOGY

Research Context and Population

The chosen context for the study was the Greater Accra Region. This region was chosen not because it is representative of other regions in Ghana but because it has better-developed private health infrastructure that facilitated the discovery of the variables required for this research. Furthermore, over 90% of Ghana's private health care providers are concentrated in the Accra- Tema districts (Pappoe, Ofosu-Amaah, & Boni, 1999). Correspondingly, an analysis of previous studies conducted on the Ghanaian private health sector showed that the Greater Accra Region has been the chosen context for those studies as well (Bitran, 2011; Pappoe at al., 1999).

The target population of this research was private health care providers, specifically private hospitals in the Accra- Tema districts. Given that it's the largest segment in the private health sector (GHS, 2010), it offered a diverse range of business models to facilitate this study. Furthermore, hospitals were a better fit for this research over clinics, as hospitals possess more sophisticated models, are more numerous in the sector (GHS, 2010) and have experimented with different business model types over their life cycle. This thus presented the researcher with a wider scope of information to conduct a more effectual study.

Research Sample

Sample Description

The hospitals investigated in the study were offering general medical services (in the least), had been in operation for a minimum of three years and were operating as a going concern. The respondents, who served as representatives of the hospitals,

comprised of hospital administrators, chief executive officers and or owners of the chosen hospitals. These individuals were relevant to the study since they had the most information about the operations of their respective facilities and held a lot of institutional knowledge. Hence, they could best describe the specific elements their facilities were utilizing in relation to the components of the business model canvas.

Sample Size

Ten private hospitals were used for the study. Providentially, the small sample size did not destruct the results of this study since a qualitative study's sample's main competence should be its ability to answer all the research questions of the study and not to ensure generalizability, which was the case with this sample size (Marshall, 1996).

Sample method

The hospitals chosen for the study were selected via a snowball sampling technique, where respondents, in each of the chosen facilities, gave recommendations of other facilities they believed should be included in this study, based on the criteria of hospitals the study was targeting.

Purposive sampling, on the other hand, was applied when choosing the relevant respondents to answer the research questions (Marshall, 1996). This method was ideal since the study needed to access the targeted segment quickly and sampling for proportionality in this study was not important. The specific purposive sampling technique applied was expert sampling. Expert sampling involves gathering a sample of individuals with known and demonstrable experience in the area of study (Trochim, 2006). Since the required respondents of the sample were experts in their respective hospitals' management, this technique was ideal.

Research Method

Research Approach

The objective of the research was to perform an exploratory study. An exploratory study involves investigating "what is happening, to seek new insights; to ask questions and to assess phenomena in a new light (Robson, 1993, p.42)." This method was best suited for this research because the research aimed to inform the audience about the existing business models of the Ghanaian private health sector, considering how relevant business models are becoming in the global health sector.

To achieve this objective, a qualitative research method was applied. Van Maanen (1979, p.520) defines qualitative research as "an umbrella term covering an array of interpretative techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency of, certain more or less naturally occurring phenomena in the social world." Since the research aimed to describe the various aspects of Ghanaian private hospitals business models, a qualitative approach to the study was ideal. Moreover, with the lack of existing data on the subject, a quantitative approach was an ill fit wherein a qualitative study presented more in-depth findings.

Of the various qualitative research approaches, this study considered the ethnographic approach. Ethnographic studies focus on the structure and function of a specific group, with the aim of presenting a holistic picture of the operations or characteristics of the entire group (Al-Busaidi, 2008). Given that this approach is one of the most used in health care studies and its end goal falls in line with that of the study, it was best suited for this research. The methods of data collection used for the ethnographic study involved documentation review for secondary data sources and interviews for primary data sources.

Data Research Method

Both primary and secondary research data sources were used in this study. This was to get a wider scope of insight into the research topic.

Primary Research

Primary data was obtained from the responses of the chosen respondents for the study. These responses were obtained through the use of semi-structured interviews. Semi-structured interviews are based on "a flexible topic guide that provides a loose structure of open-ended questions to explore experiences and attitudes (Al-Busaidi, 2008, p.14)." This approach presented greater flexibility, enabling the researcher to gain richer information on the topic, aside the information from respondents' specific answers to interview questions. Interview questions consisted of open ended questions and targeted questions about specific coding categories that were utilized in the data analysis. Open-ended questions allowed respondents to express an opinion without being influenced by the researcher (Foddy, 1994). Appendix A contains the interview questions utilized for the study.

Secondary Research

Secondary data was obtained from the websites of the chosen hospitals (for hospitals that had websites). This information enabled the researcher identify some of the characteristics of the chosen hospitals' respective business models, even before conducting the interviews. This analysis also aided the researcher construct more precise interview questions that ensured findings obtained answered all research questions of the study.

Expert Validity

Interview questions were tested specifically for expert validity. This involved employing experts in the subject matter (business models) to assess the validity of the interview questions. These experts comprised of lecturers in Ashesi University College who have expertise in business model studies.

Data Collection Procedure

Below are the steps showing how data was collected;

1. Needed information was identified
2. The research approach was determined
3. The research context was determined (region, business type)
4. The research sample, sample size and sampling method were chosen
5. Secondary data was obtained and analyzed
6. Interview questions were developed
7. Expert validity was performed
8. Actual interviews were conducted
9. Data was recorded

Data Analysis

Qualitative data derived from interviews was analyzed using content analysis. Content analysis is a "research analysis technique that makes replicable and valid inferences from data to a specific context (Krippendorff, 1980, p.21)." This technique was ideal because it enabled the researcher critically analyze the content of data obtained and make relevant connections to Osterwalder's business model canvas. The specific method of content analysis used in this study was directed content analysis. Directed content analysis is used when existing theory exists about a phenomenon that is incomplete or would benefit from further research (Hsieh & Shannon, 2005).

This approach involved firstly using existing theory to identify key concepts, which were used as initial coding categories, before assigning operational definitions to each of these categories based on the related existing theory. In this study, the nine building blocks of Osterwalder's business model canvas namely key partners, key activities, key resources, value proposition, customer segments, customer relationships, revenue streams, cost structure and channels, were used as the initial coding categories. Table 3 below presents the operational definitions assigned to each category;

Table 3

Operational Definitions of Coding Categories

Coding Category	Operational Definition
Value Proposition	The core value the private hospital seeks to offer its clientele
Key Partners	The core institutions and or individuals the private hospital collaborates with to produce and or deliver its services
Key Activities	The core processes or actions the private hospital performs to produce and or deliver its services
Key Resources	The core skills, capabilities, assets the private hospital requires to produce and or deliver its services
Channels	The methods by which the private

	hospital gets its clientele
Customer Segments	The types of customers (target market) the private hospital is focused on serving
Customer Relationships	The methods by which the private hospital gets, grows and keeps its clientele
Cost Structure	The various cost categories the private hospital incurs during its monthly operations and their associated percentages of total monthly cost incurred.
Revenue Streams	The means by which the private hospital gains revenue from patients

The findings from the interviews were then transcribed, and all text that had an association with any of the coding categories was highlighted. All highlighted text was then coded (classified) according to the various coding categories. Any text that could not be categorized with the initial coding scheme was analyzed and either placed in a new coding category or a subcategory of an existing code. Finally, a tally of recurrent units (under each coding category) was conducted to get a frequency of similar codes and a rank order comparison performed. The data derived was then used to answer the research questions stipulated earlier.

Ethical Consideration

The principles of voluntary participation, informed consent, risk of harm and confidentiality, which are the potential ethical issues pertaining to social research, were each considered during all relations with respondents (Trochim, 2006). No respondent was coerced into partaking in this study against their will. Furthermore, all respondents were informed of all procedures and potential risks the study may involve prior to receiving their consent. Participation in the study involved no risks to either physical or psychological harm to respondents. Respondents were also ascertained of confidentiality of the information collected and the anonymity of respondents and their associated institutions.

CHAPTER FOUR: RESULTS AND DISCUSSION

Hospitals' Profiles

The business models of ten private hospitals were analyzed for this study. These hospitals were recommended by a number of medical administrators and medical practitioners as ideal for this study. The hospitals are located in different areas of the region namely Kasoa, Weija, Odorkor, Laterbiokorshie, Lapaz, North Karneshie, Kwabenya, Airport Residential and Pantang. The hospitals also varied in terms of their age, founders and offered services.

Hospitals' Age

The private hospitals used for the study have been in existence for periods ranging from four to forty-two years. The age of the hospitals was thus sorted into four main categories namely less than 5 years, 5-10 years, 11-20 years and 21 years and above. *Figure 2.* below shows the percentage of hospitals that fell within each of the above-listed categories.

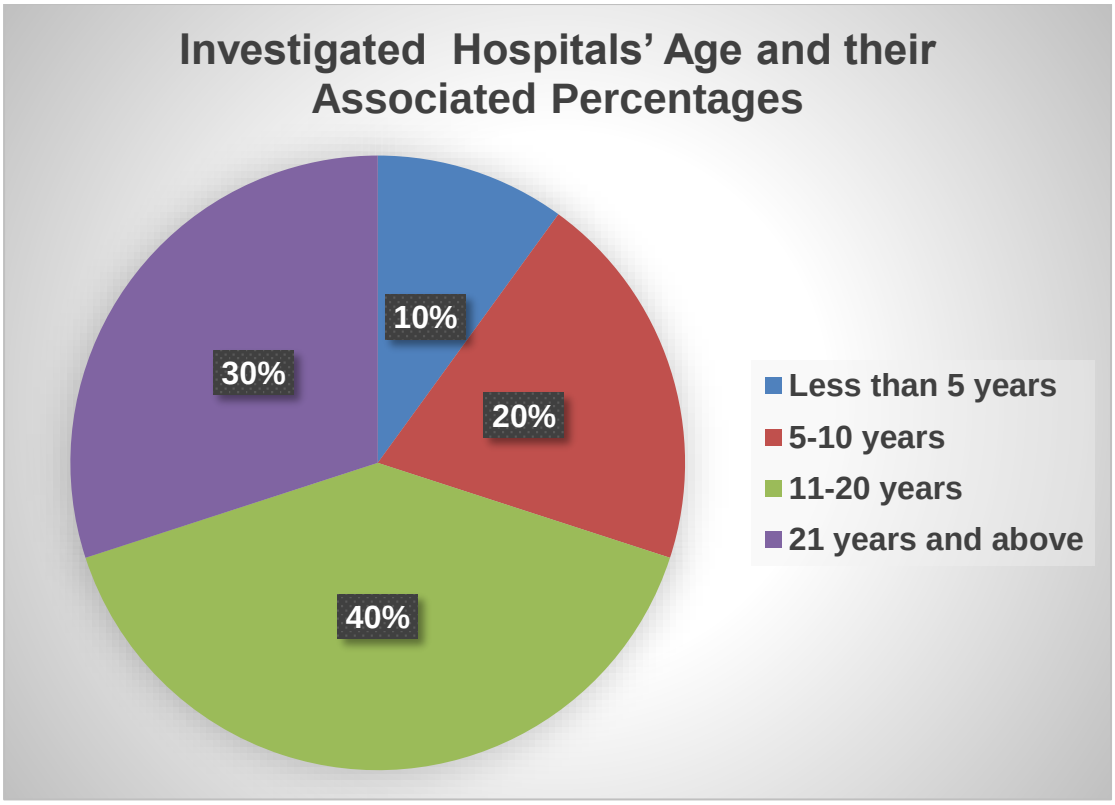

Figure 2. Investigated Hospitals' Age and their Associated Percentages

The results above show that most of the hospitals have been in existence for longer than 10 years (40% being in existence for the period of 11-20 years and 30% being in existence for the period of 21 years and above). The shortest term of existence amongst the chosen hospitals was four years.

Hospitals' Founders

The chosen hospitals had three main founder categories. Hospitals investigated had either been founded by a medical practitioner and spouse, a group of shareholders or a non-governmental organization. *Figure 3.* below shows the various founder categories and the percentage frequency of each category.

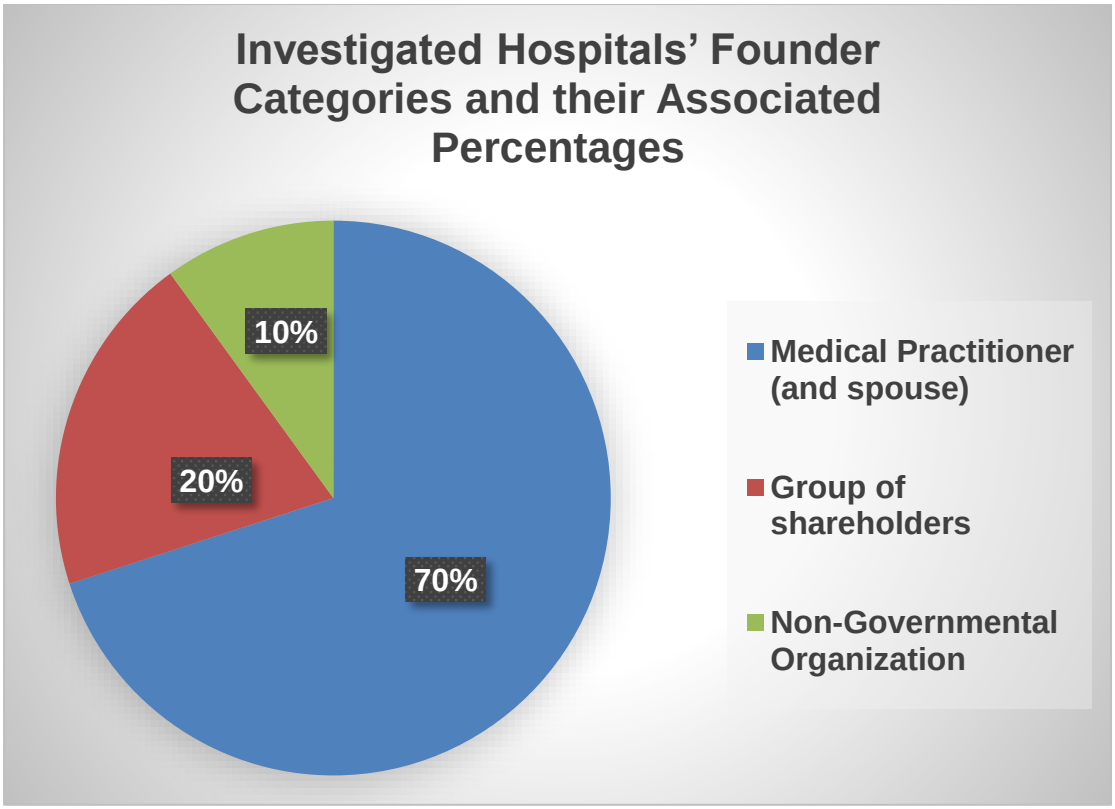

Figure 3. Investigated Hospitals' Founder Categories and their Associated Percentages

The results above show that most of the hospitals (70%) were founded by medical practitioners, with only 20% being founded by a group of shareholders and 10% by a non-governmental organization.

Services Offered by Hospitals

The hospitals also greatly varied by the number and kind of services offered. Services offered ranged amongst general practice, specialty services, imaging services (scans such as x-rays), laboratory and pharmaceutical services amongst others. Table 4 below shows the various services all hospitals investigated offer and the number of hospitals offering each of these services. To obtain these results, a tally was conducted.

This involved counting the number of times each of the services were mentioned by each hospital from the collective list of rendered services provided by all the hospitals.

Table 4

Type of Services offered by Private Hospitals and the Related Frequencies

Services Offered	Frequency
General Services	
Outpatient Care	10
Inpatient Care	10
Laboratory	10
Pharmacy	10
Family Planning	2
Emergency	5
Homecare	9
General Surgery	1
Maternity	4
Medical Examination	5
Electrocardiogram	6
Specialist Services	
Gynecology	7
Ophthalmology	4
Cardiology	3
Orthopedics	4
ENT (Ear, Nose & Throat)	6

Dentistry	6
Dietician	5
Urology	6
Pediatrics	6
Psychiatry	2
Psychology	2
Physiotherapy	4
Dermatology	2
Neurology	4
Fertility	2
Rheumatology	1
Imaging:	
X-Ray	8
Ultrasound	6
Endoscopy	1
Oncology	1
Restaurant	3

As seen in the table above, all ten hospitals offer four basic general services namely outpatient and inpatient care, laboratory and pharmaceutical services. Nine hospitals offer general surgery, eight offer x-ray services, six perform electrocardiograms and ultrasounds and five offer emergency services and medical examinations. Amongst the specialist services, seven hospitals offer gynecology

services, six offer ENT, dentistry, urology and pediatrics and five offer dentistry services. Other specialist, imaging and general services are offered between one to four hospitals. Additionally, three of the hospitals have restaurants which run independently to cater for patients' feeding needs.

How Ghanaian Private Hospitals Create, Deliver and Capture Value from the Perspective of the Business Model

To answer the above research question, respondents were asked to identify the various elements of the nine blocks of Osterwalder's business model canvas (customer segments, customer relationship, key partners, key resources, key activities, revenue streams, cost structure, channels and value proposition) with reference to their respective medical facilities. Below are the results obtained under each category;

Customer Segment

This refers to the specific customer groups the hospitals target. Table 5 below shows the various responses obtained and the frequency of responses.

Table 5

Frequency of the Various Customer Segments Targeted by Private Hospitals

Customer Segment	Frequency
Lower class	1
Middle class	7
Upper class	4
Corporate Institutions	10

Embassies/ International Bodies	2
Women	3
All the above	5

The results show that most Ghanaian private hospitals (7) target the middle class. Respondents within this category attributed this particular customer segment selection to its ability to afford the relatively more expensive services private hospitals offer, compared to public hospitals. The upper class and corporate institutions are also a relatively common customer segment for private hospitals, with four and ten collective responses respectively. Respondents who listed these segments attributed their selection to the same reason mentioned above. Additionally, two of those respondents also mentioned that with their facility's aim of providing personalized care, the upper class is the ideal target for the hospital.

Furthermore, women, a segment listed by three respondents, were specifically the target of the fertility hospitals of the group due to the fertility services being offered. The lower class was targeted by just one hospital. Five of the hospitals listed all the above segments as their targeted customer segment.

Customer Relationships

These are the means by which the private hospitals attract, maintain and grow their customer base. Table 6 below shows the various customer relationship methods the private hospitals employ and their corresponding frequencies;

Table 6

Frequency of the Various Customer Relationship Methods Used by Private Hospitals

Customer Relationship	Frequency
Word of Mouth	10
Door-to-door	2
Feedback Systems	5
Outreach (Free Screening, etc.)	6
Independent Customer Service Company	1
Letters to Corporate Institutions	10

All respondents (ten) stated word of mouth and letters to corporate institutions as their facility's customer relationship method. Word of mouth refers to patients' recommendations to others due to the good service they receive(d) at the hospital. Respondents stipulated that these recommendations help the private hospital attract more patients to the facility, as well as maintain its existing customer base. With regards to letters to corporate institutions, respondents from each of the interviewed hospitals indicated that they used the method as a means to offer attractive health service packages to their (corporate institution) staff. This aids them grow their customer base and maintain a good working relationship with a defined customer segment.

Other significant methods used were outreach programs (six) and feedback systems (five). Respondents explained this as private hospitals organizing either or a combination of health talks and free screening sessions for a specific group of people such as individuals in the hospitals' vicinity, churches, schools, etc. They reflected that based on the communal nature of the Ghanaian society, this is a rather effective method used by most private hospitals in maintaining its customer relationships.

The five private hospitals interviewed, who used feedback systems, stipulated that the method was applied either in the form of suggestion boxes or feedback

questionnaires that patients are intermittently asked to fill. However, it was observed that this method was mostly employed by the high profile private hospitals (hospitals that target middle and upper class customer segments) of the group. This is most likely due to the method being more sophisticated and hence better suited for its high profile customer segments.

Only two hospitals employed door-to-door tactics as a customer relationship method and these were the hospitals that targeted everyone. One hospital, however, had employed the services of an independent customer service company to manage its customer relationships. This method, just like feedback systems, was employed by a high profile private hospital.

These results present the impression that Ghanaian private hospitals choose their customer relationship methods based on the targeted customer segment (feedback systems, customer relationship company, door-to-door, letters to corporate institutions), the culture of the Ghanaian society (outreach programs) and effective proven customer relationship methods for most service companies (word of mouth).

Key Partners

This refers to the prime institutions the private hospitals collaborate with to produce and or deliver their services. Table 7 below shows the different key partners Ghanaian private hospitals partner with and their associated frequencies.

Table 7

Frequency of the Various Key Partners Ghanaian Private Hospitals Collaborate With

Key Partners	Frequency

Ghana Health Service (National Health Insurance Scheme)	2
Drug Suppliers	10
Medical Consumables Suppliers	10
Other Private Hospitals/Clinics	10
Corporate Institutions	10
Private Insurance	9
Government Hospitals	10
Customer Service Company	1
Non- Governmental Organization	2

The key partners utilized by all the private hospitals interviewed (ten) are drug suppliers, medical consumables suppliers, other private hospitals/ clinics, corporate institutions and government hospitals. Nine respondents listed private insurance companies as partners, as most patients are enrolled on private insurance health schemes that aid them to pay their medical bills. Only two of the interviewed hospitals stipulated that they accept payments through the National Health Insurance Scheme (NHIS). Eight of the private hospitals stated that they do not accept NHIS due to the delay in payments from the government. Furthermore, two of the private hospitals are partnered with non-governmental organizations (NGO). While one NGO was supporting the private hospital with medical equipment funding, the other was supporting the private hospital with management expertise and staff salary payment.

Local and government hospitals/ clinics are partnered with because they offer additional services in cases of referrals. This works in two ways, either through (1) other private hospitals and government hospitals referring patients to the investigated private

hospitals or (2) the investigated private hospitals referring patients to other private hospitals and government hospitals. Respondents stipulated the basis of these referrals as the inability of their facilities to provide the patient's needed services. More often, however, patients are referred to government hospitals. This is especially evident in emergency cases and surgical procedures. Respondents attributed this to government hospitals having more expertise and facilities in that regard.

This is a particularly interesting observation for the study as it presents a contrary notion to prior research stating that private hospitals perform more effectively (through their use of business models and application of resource-based and market-based principles) than public hospitals (IFC, n.d.). The fact that private hospitals rely on the public health sector, in some regard, to render services, due to more efficient services being rendered in the public health sector, raises the question of whether the public health sector might also be applying business models in its operations and whether its application could be more effective.

Key Resources

This refers to the core capabilities and assets the private hospital uses to render its services. Table 8 shows the key resources of the private hospitals included in the study and their associated frequencies.

Table 8

Frequency of the Various Key Resources Ghanaian Private Hospitals Utilize

Key Resources	Frequency
Volunteers	1
Human Resource	10
Funding (Capital)	10

Drugs	10
Medical Equipment	10
Medical Consumables	10
Medical Software	6
Website	8
Non- Governmental Organization's support (funding, management expertise, etc.)	2

All private hospitals listed human resource, capital, drugs, medical equipment and medical consumables as their key resources. Respondents considered these elements as the basic necessities every private hospital needs to operate with to offer its services. Six of the interviewed hospitals listed their medical software and eight listed websites as key resources. These resources were also observed to be particularly associated with the high profile hospitals of the group. Whiles medical software aids the private hospital run a paperless system and enhance its operations and record keeping, websites aid in reaching new clients by advertising the facility and offering a platform where patients can book appointments at the hospital.

An analysis of the data collected seemingly illustrates that Ghanaian private hospitals employ key resources based on their ability to enhance operational efficiency (medical software, funding, non-governmental organization's support), to render medical services (drugs, medical consumables, medical equipment, human resource, volunteers) or increase public awareness (website).

Key Activities

This refers to the core processes and actions the private hospital performs to render its services. Table 9 below shows the key activities the private hospitals in this study perform and their associated frequencies.

Table 9

Frequency of the Various Key Activities Ghanaian Private Hospitals Perform

Key Activities	Frequency
Managing pharmaceutical supply chain	10
Outreach programs	6
Providing Health Services	10
Operating the facility	10
Corporate Social Responsibility Activities	3
Door-to-door	2
Training programs	1
Research	1

All private hospitals listed managing their pharmaceutical supply chain, providing health services and operating the health facility as their core activities. Six of the hospitals also listed outreach programs as one of their core activities since that constitutes their customer relationship method and channel for reaching new customers. Three of the hospitals engage in corporate social responsibility activities as a legal requirement based on their business type. Only two hospitals perform door-to-door activities in efforts to build their clientele base.

It was interesting to find that training programs for staff and research are activities being performed by only one of the interviewed private hospitals. This is

because these are essentially resource developing activities which would be usually performed by any institution with a focus on building its resources and utilizing them to their fullest potential. It's thus peculiar to observe that these activities are hardly being invested in by Ghanaian private hospitals.

Value Proposition

This refers to the core value the private hospital seeks to offer its customers. The study showed that the primary value proposition of all Ghanaian private hospitals is quality health care as all respondents stated that. However, each of those hospitals also mentioned unique value elements they seek to offer in addition such as prompt service, a full range of medical services, personalized health care, excellent customer service, specialist services, staff training, value for money and accessible health care.

Channels

This refers to the methods by which private hospitals reach their clientele. Table 10 below shows the different channels employed by Ghanaian private hospitals and their associated frequencies.

Table 10

Frequency of the Various Channels Ghanaian Private Hospitals Utilize

Channel	Frequency
Signboard	10
Patient recommendation	10
Website	8
Outreach	6

Flyers	4
Telemedia (T.V & radio)	3
Corporate Social Responsibility Activities	3
Door-to-door	2
Letters to corporate institutions	10
Print Media (News articles)	1
NHIS Website	2
Long-term existence	3
Social Media	1

All private hospitals use signboards, letters to corporate institutions and patient recommendations as a channel for reaching customers. Patient recommendation, however, was enumerated as the most effective channel by all respondents. The use of this method as the premier channel by most hospitals presents a noteworthy insight for the study (discussed later), with reference to relating findings to the theoretical framework of the study. Most hospitals (eight) have websites through which they advertise their services and interact with clients (appointment booking platforms). This was particularly evident amongst the high profile hospitals of the group. Outreach programs, as elaborated on in the customer relationship segment earlier, is also a significant channel utilized by most hospitals (six).

Research revealed that hospitals in Ghana are not allowed to advertise their services publicly via flyers, telemedia or print media. Thus, the private hospitals that use those channels display the flyers solely in their facility and do not engage in direct advertisement through the media. Media advertisement is conducted indirectly through representatives from the private hospitals participating in radio shows or television

shows on health matters or writing articles for newspapers or magazines on health related topics.

Hospitals that have been in existence for a duration of 21 years and above (30%) stipulated using their long-term existence and related built reputation as a channel for reaching clients. Some hospitals (two) are also listed on the National Health Insurance Scheme website, which builds awareness about hospitals that use the scheme as a revenue stream.

Cost Structure

This refers to the monthly costs incurred by the private hospitals in rendering its services and operating the facility, as well as the individual associated percentages of total costs incurred. Table 11 shows the various cost structures of the private hospitals and their associated frequencies.

Table 11

Frequency of the Various Cost Structure Components of Ghanaian Private Hospitals

Cost Structure	Frequency
Salaries constitute 40% and above of total expenditure	6
Salaries constitute below 40%of total expenditure	1
Drugs & Consumables constitute 10%-20% of total expenditure	4
Drugs & Consumables constitute above 20% of total expenditure	3

Operational costs (Maintenance, Utilities, etc.) constitute 10%-20%of total expenditure	4
Operational costs (Maintenance, Utilities, etc.) constitute above 20%of total expenditure	3

The general cost structure of most private hospitals was deduced to be salaries, constituting 40% and above of total expenditure, drugs & consumables, constituting 10%-20% of total expenditure, and operational costs, constituting 10%-20% of total expenditure. Salaries were considered as the highest cost segment for all the hospitals, with an average of 35% and above of total monthly expenditure incurred. Drugs and consumables and operational costs both fell within the category of 10%-20% of total monthly expenditure. The only variations in cost structure stemmed from the difference in salary attributions of total expenditure (whether salaries contributed to 40% and above of total expenditure or less than 40% of total expenditure).

Revenue Streams

This refers to the methods by which private hospitals receive revenue for services rendered to clients. Table 12 below shows the various revenue streams of Ghanaian private hospitals and their associated frequencies.

Table 12

Frequency of the Various Cost Structure Components of Ghanaian Private Hospitals

Cost Structure	Frequency
Self-Financing	10

Corporate Institutions	10
Private Insurance	9
National Health Insurance Scheme (NHIS)	2

Self-financing and corporate institutions are the main revenue streams used by all hospitals. Moreover, all respondents stipulated self-financing as the most effective and largest revenue stream. Nine hospitals receive payments from private insurance providers, for patients enrolled on those schemes, whiles only two hospitals accept NHIS payments.

Business Model Canvas of Ghanaian Private Hospitals

Based on the above results, a business model prototype for Ghanaian private hospitals can be created using Osterwalder's business model canvas. This canvas depicts, in detail, how Ghanaian private hospitals create, deliver and capture value from the perspective of the business model, based on the application of resource-based and market-based principles. *Figure 4.* below shows the business model.

Figure 4. Business Model Canvas of Ghanaian Private Hospitals

KEY PARTNERS	**KEY ACTIVITIES**	**VALUE PROPOSITION**	**CUSTOMER RELATIONSHIPS**	**CUSTOMER SEGMENTS**
Drug Suppliers- 10	Managing pharmaceutical supply chain- 10	Quality Health Care	Word of mouth- 10 Outreach- 6	Middle class- 7 Upper class- 4

Medical Consumables Suppliers-10 Other Private Hospitals and Clinics- 10 Corporate Institutions- 10 Government Hospitals- 10 Private Insurance Companies- 9 Ghana Health Service (National Health	Outreach programs- 6 Providing Health Services-10 Operating the facility- 10 Corporate Social Responsibility Activities- 3 Door-to-door-2 Training Programs- 1 Research-1	Quality health care at competitive rates Specialist services Prompt Service Excellent customer service Full range of medical services Staff training Value for money Accessible health care	Door-to-door-2 Feedback systems - 5 Independent customer service company-1 Letters to corporate institutions-10 **CHANNELS** Signboard-10 Patient recommendation-10 Website-8 Outreach-6	Corporate institutions-10 Women-3 Embassies/ International bodies-2 Lower class-1 All the above-5

Insurance Scheme)- 2 Non-Governmental Organizations-2 Customer Service Company-1	**KEY RESOURCES** Human Resource- 10 Funding (Capital)- 10 Drugs- 10 Medical consumables-10 Medical Equipment- 10 Medical Software-6 Website-8 NGO support-2	Personalized health care-1	Flyers-4 Telemedia (T.V & radio)-3 Corporate Social Responsibility Activities-3 Door-to-door- 2 Letters to corporate institutions-10 Print Media (News articles)-1 NHIS Website-2 Long-term existence-3 Social Media-1	

	Volunteers-1			
COST STRUCTURE Salaries (40% and above)- 6 Salaries (below 40%)- 1 Drugs & Consumables (10%-20%)- 4 Drugs & Consumables (above 20%)-3 Operational costs (Maintenance, Utilities, etc.) 10%-20%- 4 Operational costs (Maintenance, Utilities, etc.) above 20%- 3			**REVENUE STREAMS** Self-financing-10 Corporate Instituitons-10 Private Insurance-9 National health Insurance Scheme-2	

Factors that Explain the Differences between the Business Models being used amongst Ghanaian Health Care Professionals

Within the business models of each of the investigated hospitals, it was observed that there were different types and combination of elements used by each hospital. An analysis of the data showed that these differences could be related to some of the earlier mentioned distinguishing attributes of these hospitals such as the founder type of the hospitals, the hospitals' age and the kind of services rendered by the hospitals. A more detailed discussion follows in the sub-sections below.

Founder Type

It was observed that amongst the private hospitals studied, the founder type influenced the kind of key partners, key activities and value proposition the private hospital operates with. Hospitals with medical practitioners as founders were observed to have those three blocks focused centrally on the interests of their targeted customer segments. For hospitals founded by a non-governmental organization or a group of shareholders, those blocks focused on the unique interests of their founders. Examples of such interests were health research studies, medical training and innovative and personalized health care.

Age

Another significant factor observed was the different ages of the studied private hospitals. It was observed that hospitals which have been in existence for a longer period of time had more elements under each block and were able to strongly leverage their long-term existence as a channel for reaching new patients. Additionally, these hospitals had experimented with various elements over their duration of operation and limited their application to only the best-performing ones for their operational structure. For younger hospitals, the elements under each block were considerably fewer and

there was still a lot of experimentation being conducted to find the best fitting elements for their operational model within the given context.

Services Rendered

The various private hospitals studied all offered varying kinds of general, diagnostic and specialist services. These variations in services also significantly influenced the different elements used in their respective business models. These differences were particularly evident amongst the customer segment, key activities, key resources and channels blocks of their respective business models. For instance, a hospital rendering fertility services would have women as its customer segment, a hospital rendering pharmaceutical services would have to manage a pharmaceutical supply chain as its key activities and the like. Hence, the elements employed under the blocks for each private hospital were considerably influenced by the kind of services the private hospital rendered.

Linkage of Findings to Resource-Based and Market-Based Principles

Observations of the results obtained showed strong correlations between the findings and the theoretical framework of the study (i.e. the application of resource and market-based principles through business models (Steininger et al.,2011)). An analysis of the results shows that the Ghanaian private hospitals studied, leverage a set of unique resources, capabilities and external market forces to gain competitive advantage in the sector. Furthermore, these elements are being applied through Ghanaian private hospitals' use of business models based on the aforementioned blocks such as key activities, channels, key partners, customer segments amongst others. These findings

all affirm that resource-based and market-based principles are indeed being applied through the perspective of the business model in the Ghanaian private health sector.

Furthermore, the use of word of mouth, as a channel for attracting new clients amongst all the hospitals, presents a distinct relation to the theoretical framework of the study. The use of 'word of mouth', as a premier marketing channel in the industry, demonstrates the combined use of a hospital's key resources, key activities and key partners to project the competency of the hospital, through its channels, based on the value proposition the hospital offers, to attract customer segments and eventually generate revenue for the hospital. This combined use of resource-based (key resources, key activities and key partners) and market-based techniques (channels, revenue streams, customer segments, value proposition) to capture value through the business model, further affirms the existence of the theory in the Ghanaian private health sector.

However, due to some reference comments passed by respondents, about the Ghanaian public health sector, some peculiar observations were made. Firstly, the dependence of most private hospitals on government institutions, for the provision of particular health services via referrals, questions how effectively the private sector is actually leveraging its resources. This is because, if the private hospital was using its resources efficiently, ideally, patients would not have to be transferred to government hospitals for health care provision. This thus gives the impression that the Ghanaian public health sector is a better resource mobilizer, presenting new insight to the study.

Likewise, results showing just one private hospital engaging in resource developmental activities, such as research and training, raise a similar hesitation to the sector's focus on leveraging resource and market-based principles in its operations.

It thus creates speculation as to whether the public health sector has a diminished focus on these activities as well or is rather implementing them on a higher scale.

In order to unpack these findings, we discuss them with reference to a provisional public hospital business model canvas, created based on secondary research. Discussing the findings with reference to a public hospital canvas provides us the opportunity to potentially explain the unique findings and how they might relate to the theories employed in this research. This referential discussion also allows us to speculate on what the theory may predict for the public hospital system, in order to highlight how the private hospitals improve on the public hospital models.

An Illustration of Private Ghanaian Hospitals in reference to Public Ghanaian Hospitals

Business Model Canvas of Ghanaian Public Hospitals

In order to better analyze some of the unique findings of the study, a provisional business model was created for Ghanaian public hospitals. This model was created based on secondary research and interviews with some medical practitioners who practice(d) in the public health sector. *Figure 5.* below shows a provisional business model of Ghanaian public hospitals, which will serve as a reference point in discussing the key blocks that were identified for the private sector hospitals.

Figure 5. Business Model Canvas of Ghanaian Public Hospitals

<table>
<tr>
<td rowspan="2">KEY PARTNERS
Drug Suppliers

Medical Consumables Suppliers

Private Hospitals and Clinics

Corporate Institutions

Other Government Hospitals

Private Insurance Companies</td>
<td rowspan="2">KEY ACTIVITIES
Managing pharmaceutical supply chain

Outreach programs

Providing Health Services

Operating the facility

Corporate Social Responsibility Activities

Training Programs

Research</td>
<td rowspan="2">VALUE PROPOSITION
Quality Health Care

Innovative healthcare, research and training</td>
<td>CUSTOMER RELATIONSHIPS
Goodwill

Outreach</td>
<td rowspan="2">CUSTOMER SEGMENTS
Everyone</td>
</tr>
<tr>
<td>CHANNELS
Signboard

Patient recommendation

Website

Outreach

Tele media (T.V & radio)

Corporate Social Responsibility Activities</td>
</tr>
</table>

Ghana Health Service (National Health Insurance Scheme) Donors & Granting bodies			Print Media (News articles) NHIS Website Long term existence	
	KEY RESOURCES Human Resource Funding (Capital) Drugs Medical consumables Medical Equipment Medical Software Website			

	Donors support Volunteers			
COST STRUCTURE Salaries Drugs & Consumables Operational costs (Maintenance, Utilities, etc.)			**REVENUE STREAMS** Self-financing Corporate Institutions Private Insurance National health Insurance Scheme	

An analysis of both models shows that the two canvases would differ in two main aspects namely; (1) the relationship between some blocks of the canvas and consequently (2) the kind of elements within the blocks of the canvas.

Differences in the Relationships between blocks of the Business Models of a Private and Public Ghanaian Hospital

There were four main distinctions observed between the block relationships in the business models of private hospitals and those of public hospitals. These are; (1)

the relationship between key partners and key activities; (2) the relationship between customer segments and key activities; (3) the value proposition linkage and (4) the channels linkage. The sections below elaborate on these distinctions.

The Relationship between Key Partners and Key Activities

For the private hospital business model, it was observed that the key activities performed would attract key partners to the hospital. However, in the public hospital business model, key partners would determine the kind of key activities the hospital performs. For instance, in private hospitals, the type of medical services rendered would attract particular partners such as corporate institutions that are specifically interested in specific specialist or general services for their staff, suppliers of the specific medical consumables and drugs the private hospital utilizes for the services it renders or non-governmental organizations that support the hospital's funding and operational processes (key activities).

Conversely, in public hospitals, it is expected that key partners such as donors, grant givers and the Ghana Health Service would determine the kind of services rendered by the hospital. Thus, in public hospitals, the key activities would range more around research, training and the provision of more generalized healthcare services that meet the healthcare needs of the entire population. Since these partners are largely responsible for the public hospitals funding, key activities would be organized around these key partner's specific interests. *Figure 6.* below shows an illustration of the relationship between the two blocks in the two sectors (public and private health sector).

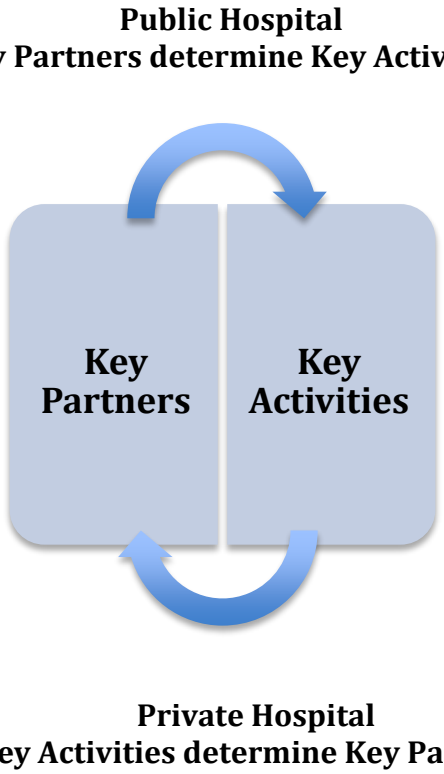

Figure 6. An Illustration of the Relationship between Key Partners and Key Activities when relating the Ghanaian Private and Public Health Sectors

The Relationship between Customer Segments and Key Activities

Furthermore, in private hospitals, it was observed that the customer segments targeted would determine the type of key activities performed. However, in public hospitals, the key activities performed would define the customer segments targeted. Most respondents from the private hospitals analyzed stated that the services rendered by the facility were chosen based on the specific customer segment the hospital had targeted to address. Thus, with most of the private hospitals focusing on the middle class, services rendered would be more tailored towards specialties. However, for

private hospitals targeting everyone (all the above), key activities would include outreach programs and door-to-door sessions to attract more clients to the facility.

In public hospitals, on the other hand, the focus would not be on the customer segments targeted, but on the key activities being performed. Public hospitals, in general, would target the masses and not specific customer segments. Thus, the key activities the hospital performs would determine the kind of customers that visit the hospital. *Figure 7.* below shows an illustration of the relationship between the two blocks in the two sectors (public and private health sector).

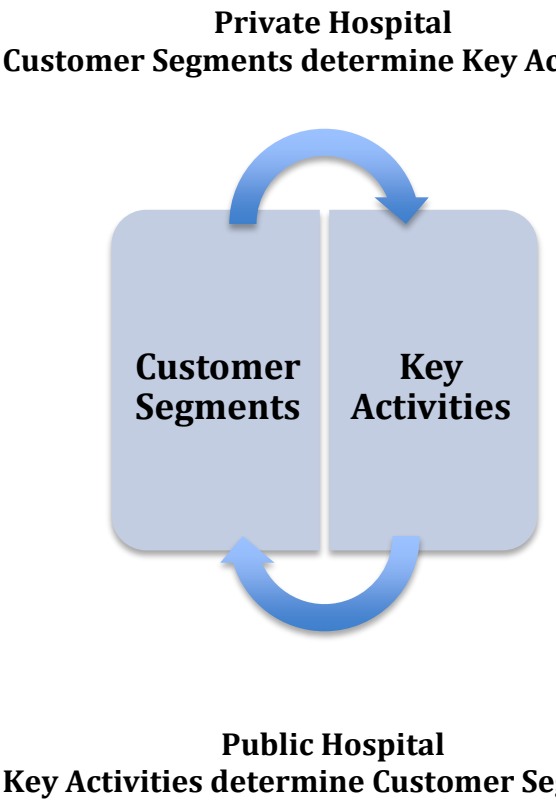

Figure 7. An Illustration of the Relationship between Customer Segments and Key Activities when relating the Ghanaian Private and Public Health Sectors

Value Proposition Linkage

The business models would also vary in terms of their value proposition linkage with other blocks. In private hospitals, the value proposition would be based on the targeted customer segment's needs. In public hospitals, however, the value proposition would be based on the interests of key partners. Thus in private hospitals, it was observed that the hospital's value proposition of quality health care (which had the most responses) would be based on their targeted customer segments interest in acquiring that specific value. Conversely in public hospitals, their value proposition of innovative health care, research and training would be based on the interests of key partners such as the Ghana Health Service, donors and granting bodies. *Figure 8.* below shows an illustration of the linkages associated to value proposition in the two sectors (public and private health sector).

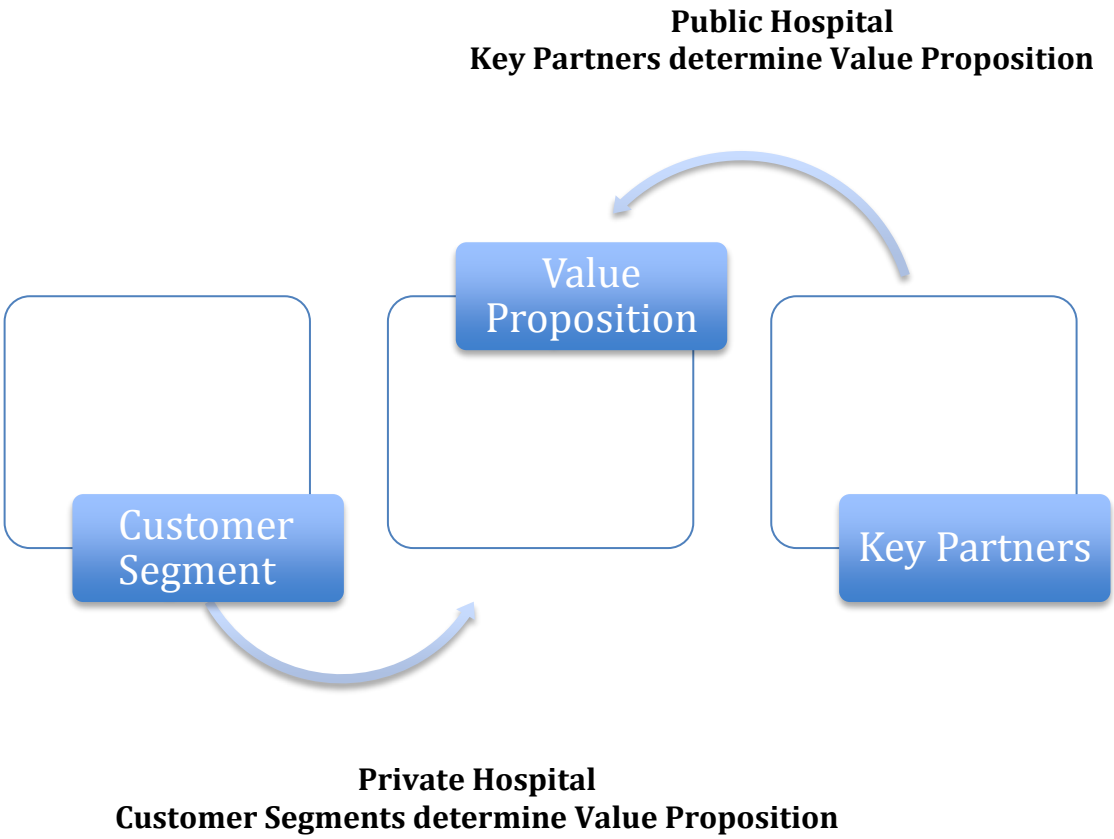

Figure 8. An Illustration of the Linkages Associated to Value Proposition in the Ghanaian Private and Public Health Sectors

Channels Linkage

Finally, in private hospitals, it is observed that the channels employed would be primarily used to attract customers whiles in public hospitals, channels would be employed to primarily attract key partners that can support the hospital. Observing the business model of private hospitals, it can be seen that the kind of channels used, such as websites, outreach programs, door-to-door sessions, signboards, telemedia and print media platforms, patient recommendations, amongst others, are focused on attracting new clients to the facility. In public hospitals, however, the channels used, such as

telemedia and print media platforms and corporate social responsibility activities, would be focused on attracting new partners, such as donors and granting bodies, to help support the facility with its operational needs. *Figure 9.* below shows an illustration of the linkages associated to channels between the two blocks in the two sectors (public and private health sector).

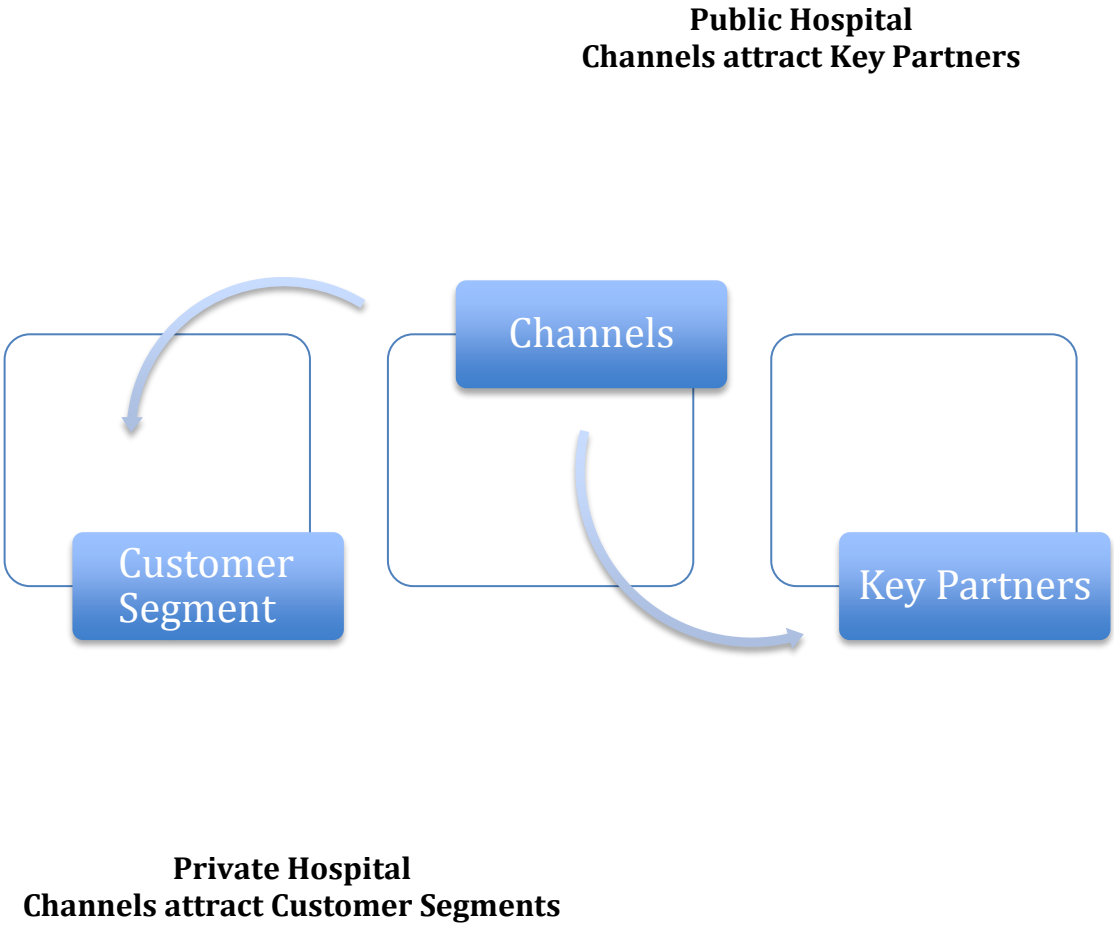

Figure 9. An Illustration of the Linkages Associated to Channels in the Ghanaian Private and Public Health Sectors

Differences in the Elements of the blocks of the Business Models of a Private and Public Ghanaian Hospital

Aside the differences in the relationships between the various blocks, evident in the business models of private and public hospitals, there are also significant

distinctions between the kind of elements under the blocks of the two sectors. An analysis of the results shows that the private health sector would have elements more focused on its customer segments, unlike the public health sector that would have elements influenced by its key partners. Furthermore, there would be a more avid practice of training and research studies in public hospitals, compared to private hospitals. Finally, the principal revenue stream for public hospitals would be through the National Health Insurance Scheme whereas in the private hospital, it would be self-financing and private insurance.

Summary of the Illustration of Private Ghanaian Hospitals in reference to Public Ghanaian Hospitals

The above illustration presents the cause for the peculiar observations made in the study (the reliance of private hospitals on the public health sector for the provision of some particular medical services via referrals and the scarce focus of private hospitals on resource developmental activities such as training and research, compared to the public health sector) as due to the possible application of resource-based and market-based principles in the public health sector as well. However, the discussion illustrates that principles would be applied differently within the two sectors. This difference, in application, is portrayed through the different relationships, between the key blocks of the business model in each sector, and the different kind of elements being utilized, under the key blocks for each sector.

Hence, the private sector's marked dependence on the public sector to provide some medical services via referrals (especially in emergency and surgical situations) stems from the probable efficiency of the sector due to its similar application of resource-based and market-based principles. Likewise, this explains the dominant

presence of resource developmental activities (research and training programs) in the Ghanaian public health sector.

Nonetheless, the scarce patronage of resource developmental activities in private hospitals, in comparison to public hospitals, can be attributed to the more dominant influence of key partners' interests on key activities in the public sector. Since key partners of the Ghanaian public sector are more interested in alleviating the general performance of the country's health sector, on a higher level, their focus is geared more towards innovation and building the country's health resource through research and training. For Ghanaian private hospitals, key activities are determined by customer segments and thus, center mainly on quality health care provision for their patients.

This observation can also be linked to the cause for the private hospitals' marked reliance on the public sector (via referrals) to provide certain medical services, due to the public health sectors' established expertise in those fields. This expertise, existent in the public health sector, can be attributed to the sector's investment in resource developmental activities, due to key partners' marked interest in those activities. This thus further shows that key partners in both sectors have different approaches to their use of resources, leading to a related difference in the application of resource-based and market-based principles in the Ghanaian private and public health sectors.

CHAPTER FIVE: CONCLUSION

Purpose of the Study

Recently, studies on the private health sector of some economies (United Kingdom, United States, India, Kenya, etc.) have shown that there is a growing application of business models by health care providers in the sector (IFC, n.d.). This application is based on the fact that business models have been examined to be one of the most suitable mediums, by which resource-based and market-based principles can be applied in any firm (Steininger et al., 2011). This is in turn related to the analysis that a firm that applies resource-based and market-based principles, increases its efficiency and creates sustainable competitive advantage for itself.

Given the minimal study of the topic in the Ghanaian context and the need for an alleviation of the performance of the Ghanaian private health sector due to its inefficiencies, this study sought to explore the application of the aforementioned phenomenon amongst private hospitals in Ghana. To achieve this goal, the research sought to answer two research questions namely; (1) how do health care professionals, in the Ghanaian private health sector, create, deliver and capture value from the perspective of the business model? and (2) what factors explain the differences between the business models being used amongst Ghanaian health care professionals?

Key Findings

The results of the study were consistent with the theoretical framework, showing that Ghanaian private hospitals do use resource and market-based principles through the application of business models in their operations. The private hospitals studied were observed to be actively using particular resources and capabilities in their

operations, predominantly evident through the key resources, key activities, key partners, revenue streams, cost structure, customer segments, customer relationships, value proposition and channel components of their respective business models. Furthermore, the prominent use of the 'word of mouth' method, as a channel for attracting new patients by all the hospitals investigated, showed a clear application of resource-based and market-based principles through the perspective of the business model amongst Ghanaian private hospitals. The study also showed the existence of different business models within the Ghanaian private health sector, based on observed differences in the elements being utilized by each hospital. These differences were possibly attributed to some factors such as the founder type of the hospital, the age of the hospitals and the types of services rendered.

However, peculiar findings, such as the reliance of private hospitals on the public health sector for the provision of some particular medical services via referrals and the scarce focus of private hospitals on resource developmental activities such as training and research, presented a new insight to the study. This insight is that the Ghanaian public health sector is probably also applying resource-based and market-based principles through business models in its operations. A referential discussion on this topic, however, suggested that this application would occur in a different manner from that of the Ghanaian private health sector. This difference would be evident through the different relationships, between the key blocks of the business model in each sector, and the different kind of elements being utilized, under the key blocks for each sector. Table 13 below shows the key findings of the study and their relations to the theoretical framework of the study.

Table 13

The Key Findings of the Study and their Relations to the Theoretical Framework of the Study

Key Findings	Resource-Based View	Market-Based View
The use of business models by Ghanaian private hospitals	Consistent since the resource-based view is practically applied in companies through the use of business models. The research showed that business models are being used by Ghanaian private hospitals and hence principles of the the resource-based view.	Consistent since the market-based view is practically applied in companies through the use of business models. The research showed that business models are being used by Ghanaian private hospitals and hence principles of the the market-based view.
The prominent use of the 'word of mouth' method, as a channel for attracting new patients by all the hospitals investigated	Consistent since the method demonstrates the use of a hospital's key resources, key activities and key partners (resource based principles) to project the competency of the hospital to attract new clients.	Consistent since the method demonstrates the projection of the competency of the hospital through its channels based on the value proposition the hospital offers, to attract customer segments and eventually generate

		revenue for the hospital. Channels, revenue streams, customer segments and value proposition are market-based techniques.
Key activities determine key partners	Consistent since the resource-based view stipulates the use of key activities and key partners to achieve competitive advantage. This same principle is evident in the study's findings, where private hospitals are observed to utilize both key activities and key partners in a similar capacity.	
Customer segments determine key activities	Consistent since the resource-based view stipulates the use of key activities to achieve competitive advantage.	Consistent since the market-based view stipulates the use of customer segments to achieve competitive

	This same principle is evident in the study's findings, where private hospitals are observed to utilize key activities in a similar capacity.	advantage. This same principle is evident in the study's findings, where private hospitals are observed to utilize both customer segments in a similar capacity.
Customer segments determine value proposition	Consistent since the resource-based view stipulates the use of value proposition to achieve competitive advantage. This same principle is evident in the study's findings, where private hospitals are observed to utilize value proposition in a similar capacity.	Consistent since the market-based view stipulates the use of customer segments to achieve competitive advantage. This same principle is evident in the study's findings, where private hospitals are observed to utilize customer segments in a similar capacity.
Channels attract customer segments		Consistent since the market-based view stipulates the use of customer segments and channels to achieve competitive advantage.

		This same principle is evident in the study's findings, where private hospitals are observed to utilize both customer segments and channels in a similar capacity.

Recommendations

The findings of this study present three general recommendations for our stakeholders (existing health care providers in the Ghanaian private health sector and new entrants). Firstly, since the study has ascertained the presence of business models in the Ghanaian private health sector, stakeholders should be aware of how essential business models are for the existence of their businesses. Business models should help structure the operations of private hospitals in the space and give them a better leverage in utilizing their resources. Hence, stakeholders are advised to apply the phenomenon to their respective businesses.

Furthermore, existing medical practitioners in the Ghanaian private health sector should focus on applying resource-based and market-based principles more effectively by taking lessons from the application methods presented in this study. The study highlighted some elements, under each of the blocks of the business model canvas, that can be deduced as vital to the success of any private hospital in the given context. This is based on their use by all the private hospitals interviewed. Table 14

below shows the key blocks and the vital elements to help guide existing medical practitioners and new entrants with their respective business models.

Table 14

Findings Showing Key Blocks and Vital Elements under each Key Block

Key Block	Elements
Value Proposition	Quality health care
Key Partners	Drug suppliers, Medical consumables suppliers, Other private hospitals/clinics, Government hospitals, Corporate institutions
Key Activities	Managing pharmaceutical supply chain, Providing health services, Operating the facility
Key Resources	Human Resource, Funding (capital), Drugs, Medical equipment, Medical consumables
Channels	Signboard, Patient recommendation, Letters to corporate institutions
Customer Segments	Corporate Institutions
Customer Relationships	Word of mouth, Letters to corporate institutions

Cost Structure	Salaries (40% and above of total expenditure) Drugs and consumables (10-20% of total expenditure) Operational costs(10-20% of total expenditure)
Revenue Streams	Self-financing, Corporate Institutions

Finally, stakeholders should bear in mind the factors that account for the differences in business models amongst Ghanaian private hospitals. These differences would guide them in determining the kind of elements to employ under the various blocks of their respective business models.

Limitations of the study

The limitations of the study were;

1. Busy schedules of respondents created a time constraint on interviews resulting in some potential further information not being collected.

2. Some potential respondents refused to partake in the study reducing the study sample.

3. The sampling technique (snowballing) utilized for the study could potentially reduce the accuracy of the results obtained.

Suggestions for Future Research

It is imperative for further studies to be conducted on the research area since the study could not relay more information about certain topic areas linked to the research. This is because the study sought to investigate whether the theory is being applied or not in the researched context but not its effectiveness in the researched context. Thus, one focal point of future studies should be to obtain evidence of sustainable competitive advantage amongst Ghanaian private hospitals due to the use of the resource-based and market-based principles in their operations. This would help identify whether the use of this theory is actually a cause of efficiency in the sector or not.

Secondly, more in-depth research should be conducted pertaining to the business models evident in the Ghanaian public sector since the references made in this study were based on a reference model derived from secondary research. Subsequently, research could then be conducted to determine which of the two sectors (Ghanaian private and public health sector) is applying the theory (resource-based and market-based principles through the perspective of business models) more efficiently to achieve sustainable competitive advantage.

Further researchers that seek to overcome some of the challenges encountered in this study could acquire a mandate from the Ghana Health Service to conduct the study. This would potentially encourage more health care providers to participate in the study. Also, respondents may be more inclined to give the interviewer more of their time once they are aware that it’s a government project.

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APPENDIX A

Table A1

Definitions of the Term 'Business Models' in Selected Literature (Steininger et al, 2011, adapted from Al-Debei et al. (2008))

Author	Publication	Definition
Amit and Zott (2001, p. 4)	Strategic Management Journal	"A business model depicts the design of transaction content, structure, and governance so as to create value through the exploitation of new business opportunities."
Baden-Fuller and Morgan (2010, p. 157)	Long Range Planning	"...Role of business models is to provide a set of generic level descriptors of how a firm organizes itself to create and distribute value in a profitable manner."
Gambardella and McGahan (2010, p. 263)	Long Range Planning	"A business model is an organization's approach to generating revenue at a reasonable cost, and

		incorporates assumptions about how it will both create and capture value."
Magretta (2002, p. 4)	Harvard Business Review	"The business model tells a logical story explaining who your customers are, what they value, and how you will make money in providing them that value."
Rajala and Westerlund (2005, p. 3)	BLED Proceedings	"The ways of creating value for customers and the way business turns market opportunities into profit through sets of actors, activities and collaborations."
Teece (2010, p. 173)	Long Range Planning	"The essence of a business model is in defining the manner by which the

		enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit. It thus reflects management's hypothesis about what customers want, how they want it, and how the enterprise can organize to best meet those needs, get paid for doing so, and make a profit."
Timmers (1998, p. 4)	Electronic Markets	"An architecture for products, services and information flows, including a description of various business actors and their roles; a description of the potential benefits for the various business actors; and a description of sources of

		revenues.”

Interview Questions

General

1. How long has this facility been in operation?
2. What health services does this facility offer?
3. Who founded the facility?

Customer Segments

1. What are your main customer segments?
2. Who are your most important/ biggest customers?

Key Partners

1. Who are your key partners?

Key Activities

1. What key activities does your value proposition require?

Key Resources

1. What key resources does your value proposition require?

Customer Relationships

1. How do you get, keep and grow customers?

Channels

1. Through which channels do you reach your customer segments?
2. Which ones work best?

Cost Structure

1. What are the most important costs (and related cost attributions) to the business?

Revenue Streams

1. What is your present revenue model?

Value Proposition

1. What value do you deliver to customers?