

AN EVALUATION OF BUSINESS MODELS IN THE PRIVATE HEALTHCARE SERVICES SECTOR IN ZIMBABWE: A CASE STUDY OF THREE HEALTHCARE COMPANIES IN HARARE

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ABSTRACT

Business models in the healthcare industry, internationally, have been found to contribute to high cost of healthcare services and poor service delivery. This research aimed at evaluating the business models being used in the private healthcare sector in Zimbabwe, with a view to improve value for the stakeholders. The research philosophy was phenomenological and took a multiple case study design. Three prominent healthcare companies were selected for the study, and a purposive sampling method was used to select the respondents for the study. The study established that the business models in use in the private healthcare services sector in Zimbabwe are following the STOF model, although the model is not yet clearly defined. The costs in the private healthcare system are significantly influenced by private insurance companies. The study also established that, the healthcare industry is too fragmented and therefore unable to influence policy or reform. The research recommended that Government establishes medical centres of excellence that could serve the community at low cost with a provision for flying in specialists to serve at the centre when required. Government is also urged to relax regulations regarding advertising of medical services to promote healthcare competition and improve on service quality.

KEYWORDS: Healthcare Business Models, Cost of Healthcare Services, Quality of Healthcare, Medical Service Regulations

INTRODUCTION

The Zimbabwe health system has been in decline for more than a decade and the result has been a decrease in coverage of most basic services (Madzorera, in Ministry of Health and Child Welfare, 2010). The per capita expenditure has remained below the World Health Organization threshold of USD 34.00 (WHO, 2010b). According to the Ministry of Health, Zimbabwe per capita was USD19.40 in 2014 USD 16.50 in 2015 (Ministry of Health and Child Care, 2016). In an effort to reverse the situation, the ministry of health devised the Zimbabwe Health Sector Investment plan (2010-2012) to mobilise resources to revitalise the health system. Private facilities were able to step in and provide service, however as the Zimbabwe Government contribution decreased, external funders and households have covered the financial burden, and households expenditure has increased from 23% to 62%. (Osika, Altman et al, 2010). Furthermore, the contributions of households are made through private health insurance companies, whose cost may be negatively affecting households. With regard to healthcare costs, there is a growing consensus that the twentieth-century model of healthcare is no longer sustainable (Grossman, 2007).

Studies carried out on business models in countries such as Belgium, Netherlands, Sweden and Norway show that business models have an effect on costs and quality of healthcare outcomes. A business model describes the value logic of an organization in terms of creating and capturing customer value and the elements of a business model result in a cost structure (Teece, 2010; Osterwalder and Pineur, 2010) Currently, Zimbabwe is sending patients to India, South Africa among other countries, for medical treatment, even though some of the medical services are found within Zimbabwe, implying that costs, and in some cases healthcare outcomes are better elsewhere than they are in Zimbabwe.

The research objective of this study was to determine the business models in the private healthcare sector in Zimbabwe. There is a growing consensus that the twentieth century model of health care is no longer sustainable (Grossman, 2007). What business models exist in the private healthcare in Zimbabwe? Are these models placing a cost burden on households and the health services sector as has been revealed in literature and yet countries such as India, Thailand and Singapore amongst others are able to offer health services at competitive rates (National Centre for Policy Report, 2007). It is important to understand how resources are being employed in the private health sector, now that it is serving 70% of the country's population as noted by the IFC (2007). Knowledge of Zimbabwe's private sector healthcare business models might help to find solutions to the medical tourism market which has been created out of Zimbabwean patients. Patients are being exported by insurance companies to other countries for treatment, even though some of the services are available in the country. It is therefore important to evaluate the effectiveness of existing healthcare business models, and their ability to create affordable value for all stakeholders with a view to improve these models for competitive advantage.

LITERATURE REVIEW

What is a Business Model?

Every company has a business model, even though in some instances the model is explicitly articulated, while in some instances the model may not be clearly articulated (Teece, 2010; Chesbrough, 2006). Amit & Zott (2010) define a business model as the design of transaction content, structure and governance of a business so as to create value through the exploitation of business opportunities. In their view, value creation should be conducted within a business model. Whilst this definition acknowledges the interaction of activities to construct a business model, their emphasis is on how such interactions are meant to create profits for the business. The Amit et al (2010) definition is generic such that it has no particular emphasis to any particular industry's business model. It can actually define a company whose aim is to create profits or can refer to how an entire industry creates profits. This can lead to the conclusion that a business model can be defined as any business whose main goal is to create value.

In their book, Osterwalder and Pigneur (2010) present a business model canvass for a shared view for describing, assessing and changing business models consisting of nine blocks. These blocks present a wider explanation of the elements and activities in a business model. Earlier, Chesbrough and Rosenbloom (2002) had defined a business model as a blueprint that describes how a network of organizations cooperate in creating and capturing value from new, innovative services or products. They went further to interpret the business model as the heuristic logic that connects technical potential with the realization of economic value. In this case they confine the definition of a business model to the capturing of value from a network of new innovations. This definition has a bias towards technological innovations and how they create value for a network. The definition also does not include the creation of value from existing services and

products thereby implying that economic value can only be created from new services and products. However, the above authors agree that a business model's objective is to create value. Similarly, Haaker et al (2004) defined a business model as a model of profits, and the concept of generating these profits is considered to be the business model in order to create customer value. Furthermore, in a later definition, Bowman, De Vos and Haaker et al (2008) focused on business models for service offerings which require cross company or multi-actor collaboration. They argue that a business model is considered a networked enterprise with a collaborative effort of multiple companies to offer a joint proposition to consumers. From their perspective a business model can be seen as a blueprint for interrelated components; service offering, technical architecture, organizational and financial arrangements (STOF). They believe that a business model describes how, in a chain or network of customers, network value is created. Their definition of a business model has a particular bias towards companies in the service industry. In addition, their definition takes care to include what they view as the four main components of a business model which are service offering, technical architecture, organizational and financial arrangement. There is equal emphasis on customer value and network value or profits. This study believes that this definition is the most appropriate to use in analyzing the business models in the healthcare sector since the health sector is also a service industry. Consequently, in this study, a business model is defined as a blueprint or framework that creates or adds value, and involves a complex interaction of activities both inside and outside the firm to create value for all stakeholders, and this includes value creation (the resultant benefit of business setup) and networking (connection of a complex system).

The Main Components of Bowman et al (2008) Business Model

Bowman et al (2008) focused on business models for service offerings, which require cross company or multi-actor collaboration. A business model can be considered a networked enterprise, a collaborative effort of multiple companies to offer a joint proposition to consumers (Haaker et al 2006). From their perspective a business model can be seen as a blueprint for interrelated components; service offering, technical architecture, organizational and financial arrangements (STOF). It describes how in a chain or network customer value, network value is created. From the earlier definition of the business model and its underlying key features it can be noted that there are similarities between a general business model and the STOF model. In the model technology describes a technical functionality required to realize the service and moves in line with the formulation of the competitive strategy by which the innovating firm will gain and hold an advantage over rivals that the business model outlines. The revenue generation mechanisms for the firm, and estimation of the cost structure and profit potential of producing the offering, given the value proposition and value-chain structure chosen, is one of the characteristic of a general business model. This can be associated with the finance domain in the STOF model. The common term of revenue generation as noted, whether it is a general business model or it is a STOF model, its ultimate goal is making a profit. The components of STOF model are explained as follows:

MARKET OPPORTUNITIES

E.g. Improvement of Communication in the Healthcare

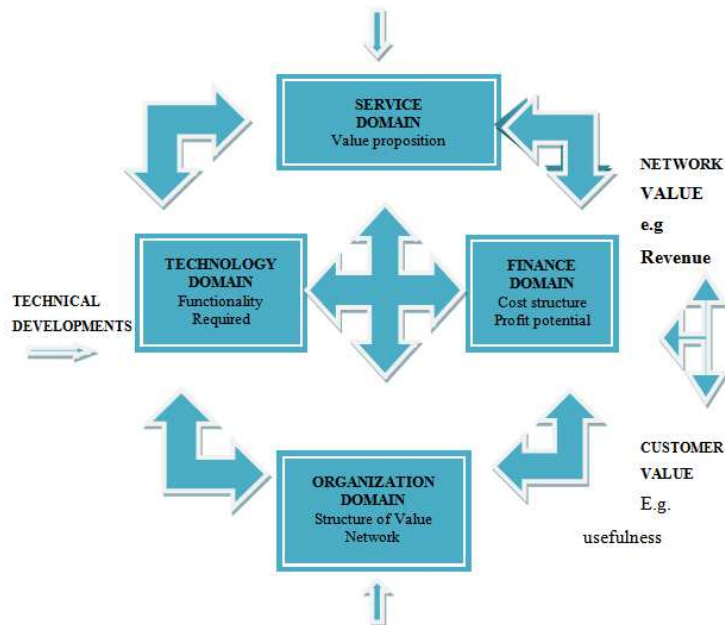


Figure 1: STOF Model Adapted from Bouwman *et al*, 2008

According to the Smart Services CRC (2011), the STOF model consists of the following domains (Bouwman, Faber, Haaker, Kijl, & De Reuver, 2008):

- *Service domain: The central issue in designing a service is ‘value’: a provider intends to deliver a certain value proposition and customers or end-users expect and perceive a certain customer value. This is addressed by four inter-related concepts: intended and delivered value on the part of the provider, and expected and perceived value on the part of the customer or end-user.*
- *Technology domain: For mobile services, technological considerations relate to technological architecture, technological functionality, backbone infrastructure, access networks, service platforms, devices, applications, and data.*
- *Organization domain: The organizational issues revolve around the resources and capabilities, mainly related to technology, marketing and finance that have to be made available to enable the service. For mobile services, this often requires organizations to collaborate in a business network.*
- *Finance domain: Financial resources are one of the most important resources to be required. Finance also defines the bottom line of most of the services to be designed. With regard to financial arrangements, there are two main issues: investment decisions and revenue models.*

All the components of the STOF model communicate the value proposition that is, the value created for customers by the product or service on offer, which is a fundamental term in business models analysis. This model can be appropriate for the health sector business since the four domains exist in the healthcare business.

The Chesbrough and Rosenbloom Model

The Chesbrough and Rosenbloom model (2002) proposes six functions which provide a coherent framework that takes technological characteristics and potentials as inputs, and converts them through customers and markets into economic outputs. The business model is thus conceived as a focusing device that mediates between technology development and economic value creation. A business model is said to integrate a variety of academic and functional disciplines. The six functions referred to in the Chesbrough and Rosenbloom business model are as follows:

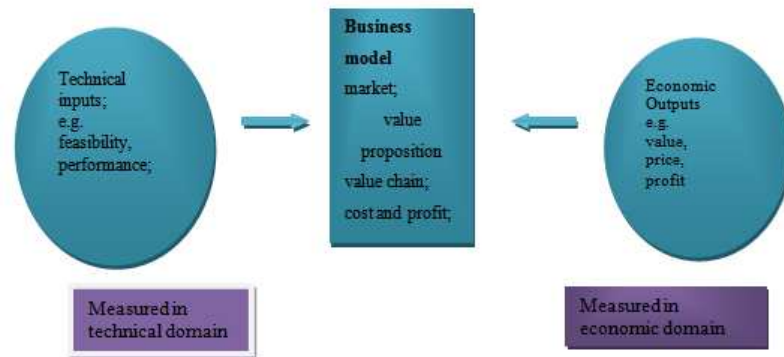


Figure 2: Functions Model Adapted from Chesbrough and Rosenbloom (2002)

The six functions involve identifying a market segment, articulating the value proposition, defining the structure of the value chain, estimating the cost structure and profit potential of producing the offering, describing the position of the firm within the value network linking suppliers and customers and formulating the competitive strategy by which the innovating firm will gain and hold advantage over rivals (Chesbrough and Rosenbloom 2002).

The above business models emanate from theories of industrial business strategy.

Theories of Business Strategy

The Industrial Organisation theory (IO) is relevant to this study, in that it covers environmental analysis, an analysis considered critical in any business strategy formulation. The IO theory originates from the works of Mason (1953) and Bain (1968) amongst others who argued that industry structure was the sole determinant of industry behaviour and performance. Porter (1976, 1977) advanced the IO concepts at business level strategy to assess the attractiveness of an industry. He argued that industry structure determines the behaviour or conduct of firms, whose joint conduct then determines the collective performance of the firms in the marketplace (Mason, 1953). The framework used to support the IO theory in analysis of industries and firms was the Five Forces Framework (Porter, 2008). He further argued that if this framework was properly done, then the firm could earn above average returns. A critical analysis of the IO theory shows that there is a relationship between this theory and the business model definition by Amit & Zott (2001) where they define a business model as the design of transaction content, structure and governance. One of its major propositions is that the structure of the industry determines the behaviour and conduct of the firms in that industry, which in turn influences the performance of the firms. There are therefore some similarities in the business model approach to IO theoretical frameworks, that is, the 5 Forces Framework and the Value Chain Analysis (Porter, 1985).

All are a breakdown of the firm's internal and external activities to follow, how value is created through to the end of the chain. Infrastructural interrelations (firm infrastructure and human resources management) in value chain analysis are covered by the organisational arrangements; technological interrelations (Technology developments) are represented by technical architecture in business model definition by Bowman et al (2008) in the STOF model. Marketing, sales and services in the Value Chain Analysis are what Bowman et al (2008) refers to as service offering. This approach to strategy formulation was a great acknowledgement of the power of the external environment of the firm at the same time ignoring any internal capabilities that the firm may have which can influence its performance.

The industry structure approach to strategy making is contrasted with the Resource Based View (RBV) theory of competitive advantage (Barney, 1991). The RBV is an approach to achieving competitive advantage that emerged in 1980s and 1990s (Wernerfelt, 1984; Grant, 1991) and it aspires to explain the internal resources of a firm for sustained competitive advantage. The RBV's central proposition is that if a firm is to achieve a state of sustained competitive advantage it must acquire and control valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities, as well as have the organization in place that can absorb and apply them (Barney, 2001; Carter, Cleg and Korberger, 2009.). The supporters of this view argue that organizations should look inside the company to find the sources of competitive advantage instead of looking at the competitive environment (Grant, 2010). In the researcher's view, a business model can be seen as a modified resource based view strategy to creating competitive advantage. With the business model approach, the idea is to organize the resources of a firm in a manner that create capabilities in the organization that no one else has or that are difficult to emulate since the central premise of the Resource-Based View is that firms compete on the basis of their resources and capabilities (Peteraf and Bergen, 2003).

According to Grant (2010), the RBV uses two assumptions in analysing the sources of competitive advantage. First, this model assumes that firms within an industry may be varied with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity may continue over time because the resources used to implement firms' strategies are not perfectly mobile across a firm that is some of the resources cannot be traded in factor markets and are difficult to accumulate and imitate (Grant, 2010). Resource heterogeneity or uniqueness is considered a necessary condition for a resource bundle to contribute to a competitive advantage.

However, the dynamic nature of today's business environment and the static nature of the RBV necessitated the need to improve the RBV through the concept of dynamic capabilities. These two theories are relevant in this study as the healthcare businesses depend on resources and the capabilities of their medical experts in a rapidly changing environment. Dynamic capabilities, by contrast, refer to the capacity of an organization to purposefully create, extend, or modify its resource base to cope with the rapidly changing environment (Helfat et al., 2007). The dynamic capabilities concept was defined by Teece, Shuen and Pissano (1997) as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments. The basic assumption of the dynamic capabilities framework is that core competencies should be used to modify short-term competitive positions that can be used to build longer-term competitive advantage. It thus provides a bridge between the economics-based strategy literature such as the industrial organization theory and evolutionary approaches to organizations (Douma, 2013). This attempt at fusing the static theory perspective that is embodied in the industrial organization theory, and the inside out approach of the resource based view can be credited with the birth of the business model innovation approach to strategic management (Helfat,2007).

The emphasis of this view is on ensuring that strategic management takes into account the rapidly changing business environment in crafting, implementing and management of the business. It also places equal importance on the internal and external environments of the firm and how both of these environments can be manipulated to create capabilities for the firm to handle a changing environment in a manner that gives value to stakeholders (Teece, 2010). The business model approach fully embraces the dynamic view of strategy by ensuring that the business model elements are capable of adapting to changing environment (Douma, 2013). If a business model is to be analyzed in relation to the dynamic view, it will imply that the service offering needs to be continuously reviewed in line with changing customer preferences, whilst adopting the latest technology to facilitate the delivery of these service offerings. The organizational arrangement also requires continuous improvement through business process reengineering exercises. The advent of modern financial arrangement such as mobile money to compliment plastic money also needs to be incorporated into a business model for the model to remain relevant to its stakeholders (Munyoro and Matinde, 2016).

In conclusion, it can be seen that the three theories above have a fundamental relationship with the two models discussed above.

RESEARCH METHOD

This study used a phenomenological approach (Saunders et al 2009; Moustakas, 1994), because in the human sphere, there is normally a need to gather deep information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participant (Mearor, 1985). The use of phenomenological approach therefore helped to get a deeper understanding of the private healthcare business models in Zimbabwe from the perspective of the healthcare service providers, the suppliers and the customers (the patients). In order to understand the complex nature of the task at hand, a multiple case study of three healthcare companies was employed in the research design (Saunders, 2003), and multiple methods such as interviews, observations, questionnaires, focus groups and documentary analysis were used and this was aimed at analysing persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more methods. The population for this study was obtained from the three organization's registered centres, all from Harare as well as from customers and medical vendors. Non probability sampling method called purposive sampling (Wegner, 1999) was used to select the health care companies and stratified random sampling (Marshall et al, 2013) was used to select internal personnel for interviews. The questions took the form of both multiple choice and open questions, allowing respondents freedom to express their views concerning new methods of assessment (Cohen and Manion, 1994; Munyoro, 2014). The response was high, with 95 percent of the respondents returning their questionnaires. Questionnaires were used as a means of collecting data, the reason being that they are reliable, unambiguous, uniformly workable, easy to administer, cheap and fast (Cooper and Schindler, 2001; Altrichter et al, 2008). Furthermore, in addition to focus group and observations questionnaires were used because they have fewer errors from research participants for the reason that their involvement is voluntary and they are also engaged in their areas of interest, thus encouraging them to cooperate in obtaining answers as close as possible to the truth (Cooper and Schindler, 2001; Cohen and Manion, 1994). As noted by Munyoro (2014), Thorpe and Holt (2008), Fern (2001), and Fontana and Frey (1994),

This method of using questionnaires is also well accepted and admired because it promotes the establishment of trust and commitment, something that is regarded as a precondition in such types of studies because it enables the researcher to examine the inner world of the respondents.

Qualitative Data Analysis (QDA) was used for data analysis as noted by Mack et al (2005) Munyoro (2014) and Seidel (1998). In line with Seidel and Kelle (1995), the process of QDA involves coding and writing. In this case, themes were identified through passages of text and labels were identified that indicated some thematic idea (Mack et al, 2005). This labelling or coding of these themes enabled the quick retrieval of all the texts that were associated with a particular thematic idea, and were examined and compared. The researchers divided the model into three parts, namely Noticing, Collecting and Thinking about interesting things using Seidel's 1998 model. These parts are interlinked and cyclical. As suggested by Seidel, the researchers noticed interesting things in the data and assigned 'codes' to them, based on the topic or theme as shown in the findings section, and these codes were in turn used to break the data into fragments (Saunders et al, 2009). The codes were then used to act as sorting and collection devices. After that, the researchers wrote about the data and the findings and this involved writing a summary of the data which also entailed some analytic ideas (Gibbs, 2002).

RESULTS AND DISCUSSIONS

This section gives a summary of the key findings and conclusions of the research study. The major research findings are presented below:

Table 1: Demographics and Characteristics of Respondents N = 120

Male	53	44.3%
Female	67	55.7%
Age		
Below 30	59	49.2%
30-40	31	26.2%
40-50	26	21.3%
Above 50	4	3.3%
Employment status customers		
Self employed	12	10%
Formally employed	71	59.17%
Unemployed	20	16.67%
Student	16	13.33%
Other	4	0.833%
Marital status		
Married	60	50%
Single	50	41.7%
Widowed	4	3.3%
Divorced	4	3.3%
Other	2	1.7%
Residential areas		
High density	41	34.4%
Medium density	49	41%
Low density	22	18.33%
Plots and farms	1	0.833%
Other	7	5.83%

The table above shows the frequency of male 53(44.3%) and female 67(55.7), this gender distribution of the respondents is acceptable and representative, since the Zimbabwe National Population Census Report (2012) shows the

population gender distribution mix as 48% male and 52% female. Similarly, the largest number of the respondents who participated in the survey was below the age of 30 years followed by those between 30 and 40 years.

These two age groups constitute the most economically active people in the country and can afford private healthcare services for their families. This also makes a good target market for healthcare companies as the age population distribution according to National Census Report (2012) indicates that 41% of the population is under the age of 15 years, 55% is between 15 and 64 years and the remaining 4% is above 64 years. A large number of respondents 71(55%) were formerly employed and a significant number 20(16.67%) were self-employed or were students 16(33.33%) whose medical bills are still being managed by their parents or guardians.

Table 2: Business Domains in Healthcare Organizations.

Business Component	Organization 1	Organization 2	Organization 3
1.1 Medical Services provided	57 registered centres Hospitalisation services And medical centres. Optometry, Radiology, Laboratory, Renal services Rehabilitation Pharmacy services General surgery	12 registered centres Hospitalisation services for medical & surgical patients, ear, nose and throat services, rehabilitation services, Accident emergency services Pharmacy services	6 registered centres Emergency services General practitioner Walk-In services Pharmacy services
1.2 Transport services	Ambulances	Nil	Nil
1.3 Specialist services	Urology Gynaecology Obstetrics Ophthalmology Nephrology Ear, Nose and Throat (ENT)	Dialysis Chemotherapy Post Graduate Nursing School.	Coffee Shop
2.1 Technology available (ICT)	Internet Computers Website - Point of sale system	Internet Computers Website Mobile and line phones -	Internet Computers Website Mobile phones
2.2 Medical equipment	Optometry manufacturing equipment Dental services equipment Radiology and clinical laboratory equipment Physiotherapy equipment Dialysis equipment Specialist equipment for - Gynaecology & Obstetrics Surgery Ophthalmology Ear, Nose and Throat (ENT)	Chemotherapy equipment Dialysis equipment Ear, nose and throat equipment	Vaccination laboratory equipment X-ray Ultra sound scan services Body mass index machine

3 Financial Activities	Group Finance, Risk and Audit at head office 60 days creditors and debtors policy. Accepts medical aid schemes Investment Policy	Accounts Department exists 60 days creditors and debtors policy. Accepts medical aid schemes Investment Policy	Accounts Department Cash settlement plus 60 days creditors and debtors' policy. Accepts medical aid schemes Investment policy
4 Organizational structures	A Corporate medical services Organization	A medical services company	A Medical Centre company
	Operates a hybrid of subsidiary medical centre units in various cities comprising of Emergency, Primary care and the family doctor. Each SBU is headed by a General manager, who reports to the group operations manager. The group is a market leader in medical services.	Runs a multifaceted hospital, and, an ear, nose and throat clinic, a Rehabilitation nursing home and a post graduate nursing school. The organization adheres to ISO 9001 quality standard. The organization is run by a Managing Director.	It is an emergency and medical walk in facility. The facility has emergency room setting where a doctor does not have a consulting room but will attend to walk in patients allocated to emergency rooms. The founder is the Chief Executive Officer

Table 2 above shows three medical business organizations operating in Zimbabwe and how the organizations business components are structured in each healthcare business. Teece (2010) indicated that every company has a business model, the three healthcare companies' exhibit different forms of business models. In this study the different business components have been grouped according to their business scope, services offered, technology in application, financial services and management structure (Bowman et al, 2008). While organization 1 has a nationwide spread the other two organizations are more limited. From the earlier definitions of the business model and its underlying key features, it can be noted that there are similarities in the general business model and the STOF model. Amit and Zott (2010) defined a business model as the design of transaction content, structure and governance so as to create value through the exploitation of business opportunities. The organizations above show networked enterprises with collaborative efforts to give focussed business propositions to customers (Bowman et al, 2008).

Zimbabwe's Healthcare Organizations Compliance with Bowman et al (2008) Business Model

The Service Component in Healthcare Companies

The study established that, the STOF model is the closest business model in use in the sector, but it is not yet fully developed. Having established that the STOF model is the model in use, the variations in the business models come in how each company is structured and manages each component. As noted by Bowman et al (2008) the service component describes the services offered by the healthcare companies and their target market. Organization 1 value proposition appears to provide all types of medical services throughout the country, serving several customer segments (Osterwalder and Pigneur, 2010), from general practitioner to specialist services and from medical centres to General Hospitals as well as procurement of medicines. However, diversification of this magnitude is risky in that value propositions may not be

successfully offered. Porter (1996) argues that diversification inevitably adds costs and is risky unless managed carefully. If key resources are thinly spread this may have negative cost repercussions on the customer. The other two healthcare service companies have more limited service models, being more compact with organization 2 stating that “ it pledges to provide quality products and services to its patients, doctors, employees and other stakeholders and also to maintain a quality management system based on ISO 9000”. Organization 3 is much smaller and offers emergency walk in services including accidents, pharmacy, Laboratory, X-ray and ultra-sound and ambulance services. This organization is situated on one site and is not affiliated to any quality standard. According to the Zimbabwe Health Professions Act (Chapter 27:19) a licence to trade in any healthcare service is awarded to a practitioner and not to a corporate legal entity or a non-medical practitioner. This has serious implications to governance, control and financing. The study established that in Zimbabwe prices for healthcare are dictated by the Association of Healthcare Funders of Zimbabwe (AHFoZ), an institution that represents the interests of medical insurers. This association establishes reference tariffs of fee structures and is responsible for accreditation and registration of healthcare providers (www.ahfoz.org, 2016). This forces service providers to design their service models around the dictation of medical insurers.

Technology Component in Health Care Companies in Zimbabwe

The STOF model sees technology as playing a central role as an enabler of customer value from a customer perspective (Smart Services CRC, 2011). This study established that investment in technological infrastructure and service platforms is very weak in the private sector. There is low utilisation of technology such as ICT systems, and there is also a reluctance to admit operational competency gaps by employees. As an example low utilisation of the Management Information System by senior managers can be seen from the insistence by some senior managers to responding to emails through printing the emails and manually writing the responses on hard copies and using their personal assistants to read and respond to their emails. Mobile technology and social media are the most underutilised in the industry. Healthcare companies are not working together to invest in technology, and as a result of this poor investment in technology, the information repository in the sector lacks information and depth and is mostly inaccessible and disjointed. Remlex (2007) argues that ICT plays a major role in driving healthcare costs down. However, where senior people in the organization lack the skills to use the computers and internet for healthcare services, as noted by Achampong (2012) use of diagnostic information systems will hardly be taken advantage of thereby missing the opportunity to reduce costs.

The Governance Component in Healthcare Companies

Bouwman et al (2008) consider issues of resources and capabilities in their organizational domain, while Haaker et al (2004) define organizational domain, as the structure of the multi-actor value network required to create and distribute the services and to describe a firm's position. In this study the structure of the organizations and their governance systems were considered including the availability of quality management systems. The study established that 2 of the organizations have boards of directors who oversee an operating day to day management, while one organization is a sole trader company. Organization 1 is a fully fledged corporate company with business units run by a General Manager reporting to the Group Operations Manager at head office. The organization staff members have developed a culture where they consider themselves as the most important stakeholders ahead of the patients. Private healthcare companies do not place importance on quality of outcomes arising from their services due to the fixed pricing model used in the industry (AHFoZ, 2016) which explains why 2 of the 3 cases were not affiliated to any quality body. Organization 2 is run by an

Executive director, and currently enjoys an excellent brand reputation. It is affiliated to a quality management system and is ISO 9001 certified. The organization culture encourages accountability. Organization 3 is owned and run by one shareholder. The founder of the healthcare company is the chief executive officer of the company and a few senior managers report directly to him. The respondents reported that the attitude of the medical staff is polite and helpful; however administrative staff attitudes are distant and cold. There is no service promise on display in the waiting area.

As can be seen from the above table, the configuration of resources of each private healthcare company are directly related to the availability of resources and by the nature of services offered. Key resources are the assets required to offer and deliver the various service elements (Osterwalder and Pigneur, 2010).

Financial Management in Healthcare Companies

According to Haaker et al (2004), the financial domain is “a description of the way a value network intends to generate revenues from a particular service and of the way risk; investments and revenues are divided among the various actors within the network.” The three healthcare companies assessed acknowledged the existence of accounting departments within their organizations. However the three organizations lamented the lack of flexibility as the rates and charging structure is controlled by the association of healthcare insurance companies (AHFoZ, 2016). Respondents from the healthcare companies indicated that most of their clients are members or children of insurance based medical aid societies belonging to AHFoZ. The study established that the financial management in healthcare companies is negatively affected by non- payment for services by medical insurance companies. This causes a chain reaction in the healthcare value chain as the healthcare services providers fail to pay their suppliers in time. Inevitably this has repercussions on costs as only those organizations with economies of scale can benefit from such an environment. However even large organization cannot survive if such practices are sustained. This has serious operational implications to healthcare industry as it limits any developments in technology based innovations or business model innovations as suggested by WHO (2008).

Government Regulations and Impact on Healthcare Companies in Zimbabwe

In Zimbabwe according to the Health Professions Act (Chapter 27:19), a license to trade in any healthcare service is awarded through a practitioner not to a corporate legal entity or non- medical practitioner. This creates a heavy burden on the models that come into the market since they have to comply with legislation. In view of the licensing structure, ultimately each graduating medical doctor from the university eventually drifts to opening their own medical practice. While this is commendable it has the undesired effect of fragmenting the medical industry into thousands of small businesses run by technically trained people but lacking in management competence. For example the curriculum run by the University of Zimbabwe is designed for a professional medical person (University of Zimbabwe Curriculum, 2014). Furthermore, such fragmentation makes it difficult for the healthcare industry to unite and push for meaningful reforms for their industry, and the incumbents struggle to innovate their businesses, and this has the tendency to increase cost and fee structures, due to diseconomies of scale (Parma et al, 2014; Koen et al, 2011).

Determinants of Cost Structure in Health Care Organizations in Zimbabwe

Prices for healthcare services in Zimbabwe are dictated to service providers by AfHoZ, an institution that represents the interests of medical insurers in Zimbabwe. Service providers are therefore forced to create their business models around the dictated prices due to the fragmented nature of the healthcare services providers market. The bargaining

power of these healthcare service providers is very weak. The resultant situation is that some service provider may fail to operate profitably due to high cost structures versus the prices while others enjoy super profits due to their size which gives them economies of scale that lowers costs against a very strictly imposed pricing structure. A detailed analysis made by J Silversmith *et al.* (2011) of the pricing models available for Healthcare services internationally further clarifies this point. As the government expenditure on healthcare has continued to decline in recent decades due to the worsening economic situation, the financial burden for healthcare is now covered by private funders and households (Osika et al, 2010) through fees and private insurance companies. Per capita actual spending on healthcare by Government has remained below USD34.00 at USD16.45 as at end of September, 2015 (MoHCC, 2016). This results in diminished intensity in primary healthcare and this has a significant increase on healthcare costs (Barros, 1998). Respondents complained that some institutional features had the effect of increasing healthcare costs for example they considered some laboratory tests as unnecessarily adding to their costs (Kiker and Zeh, 1998). The private laboratories tended to have no standardised prices as they lacked public information about their services. This supports WHO's assertion that private healthcare system lack or unwilling to provide healthcare performance data when required. Furthermore, the lack of a large pool of specialists was observed as concentrating services in a few centres and this resulted in high costs as specialist are in constant demand and this domination has the effect of increasing the costs of health care (Franks et al 1992). Respondents generally considered that prescription drugs were more expensive from private healthcare institutions compared to Government hospitals.

CONCLUSIONS

The study identified that the closest business model in use in the private healthcare services in Zimbabwe is the STOF model, however this model is still not yet fully developed and there is significant room for improvement. Furthermore, Government regulation in Zimbabwe is playing a significant role in shaping the business models that are available in the market. The research also established that technology use in private healthcare is still minimal although some ICT infrastructure is in place. Therefore the patients may not be benefiting in terms of reduced costs from diagnostic information systems and the digital revelation (Achiengpong, 2012). The pricing model that is being adopted in the private healthcare services sector is significantly influenced by the insurance companies. As the contribution of the Zimbabwe Government has declined the finance burden for healthcare has increased from 23% to 62% in the private healthcare sector (Osika et al, 2010). While general consultation and standard medical costs may be controlled, the cost situation in other utilities is rather fluid. In particular specialist services, laboratory and drug costs tend to be high in the private sector leading to medical tourism to other countries, even at the behest of insurance companies. The study established that the private sector, following on the strict controls from the Health Professions Act (Chapter 27:19) is fragmented and this has a major influence on the private healthcare ability to stand as a strong body able to influence costs or reform in their industry. Furthermore, this also results in significant fragmentation in purchasing and distribution of drugs (WHO, 2008). This may be the source of the patients' complaints that the private healthcare drugs costs are high.

RECOMMENDATIONS

To minimize costs to patients, the Government could establish shared well equipped state of the art medical centres of excellence in conjunction with private healthcare companies and these centres could serve the community at low cost as is currently being offered in medical tourism destination countries such as India, Thailand and Malaysia, according to the NCPA report (2007).

The government could also facilitate the flying in of specialists to perform specialist medical services in these centres of excellence to the local patients and this has the benefit of providing for affordable prices.

Government could also introduce laws that define the minimum size of a healthcare establishment so as to reduce medical industry fragmentation and help establish medical facilities that have sustainable operational costs. Private Healthcare companies should make use of the benefits of economies of scale by merging their practices into bigger entities which lowers their cost structure and enables them to compete effectively on the international medical services market such as ordering medicines in bulk. Similarly, Private healthcare companies should form their own associations to represent their interests in matters of common interest like pricing of services, regulation and costs of supplies. This would have an effect of reducing costs and would be an example of co-opetition strategy as employed by healthcare providers in Belgium (Tersago & Visnjic, 2011).

Healthcare services providers are encouraged to close the specialist skills gap by investing in specialist medical programmes at the University of Zimbabwe School of Medicine Medical Specialist Programme. Furthermore, those who have access to funding must consider toll manufacturing of drugs with local suppliers who manufacture drugs in order to reduce the cost of medicine and drugs for patients at the same time helping to build capacity in the local pharmaceuticals market. A similar project is being run by the United Nations UNIDO arm for Zimbabwe at national level (UNIDO, 2014). Private healthcare companies are also encouraged to take an interest and to fund research for alternative medicine programmes research as is done by the Chinhoyi University of Technology Life Long Learning Programme, so as to create capacity for future savings in the cost of medication and medical supplies. In view of the fact that medical students enter into private practice early in their careers, medical schools are encouraged to review their School of medicine curriculum with a view to include business management and ICT modules in their curriculum in order to prepare medical practitioners for the business world. Furthermore, Universities with medical schools are encouraged to extending medical attachments students to private medical institutions to allow for diversity of culture in the medical practitioners.

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