



GORDON INSTITUTE
OF BUSINESS SCIENCE
University of Pretoria

Response of firms to impending disruptive change

Zithobile Patrick Toyo

11356988

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

07 November 2012

ABSTRACT

The impending NHI will cause a disruptive change in the health care industry in South Africa. For that reason the affected firms need to prepare themselves. Furthermore the current stakeholders in the private health care sector are feeling disenfranchised in terms of how the NHI will turn out.

The aim of this study was to understand the response of existing firms whose existence is threatened due to impending disruptive change.

The research method that was used was qualitative and exploratory in design. It involved one on one semi structured interviews with 13 respondents from a total of 7 firms who were selected to participate in the study, from the following business groups: pharmaceutical firms, private hospitals, and medical distributors.

The findings revealed that the majority of firms would respond by strengthening their relations with the government who is the key stakeholder in the NHI. Secondly, they would build capacity in terms of resources and capabilities in line with the NHI. Lastly, they would innovate their value offering in the current market or new markets.

KEY WORDS: Disruptive Change, Resource Based View, Strategic Choice, National Health Insurance

DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfillment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

.....

ZITHOBILE PATRICK TOYO
11356988

.....

DATE

ACKNOWLEDGEMENTS

I wish to thank the Lord for giving me strength and courage when I felt helpless.

I wish to thank my wife Buki and children Hluma and Thando for their support and understanding when I had to spend long days on Gibs campus.

My sincere appreciation goes to my niece Loli for her undying wiliness to provide me help whenever I needed her.

Many thanks go to all the organisations that opened their doors and availed their time to participate in the interviews.

A special word of thank goes to my supervisor Dr. Rajinder Raina for trying his best to guide me through my research despite himself going through a disruptive change while relocating to Canada.

I also wish to extend my whole hearted gratitude to Mr. Magwaza for holding me by the hand all the way throughout this journey.

TABLE OF CONTENTS

Response of firms to Impending Disruptive Change

CHAPTER 1: INTRODUCTION TO RESEARCH PROBLEM

| | | |
|-----|---------------------|-----|
| 1.1 | Research Problem | 1-3 |
| 1.2 | Research Motivation | 3-4 |
| 1.3 | Research Aim | 4-5 |
| 1.4 | Research Scope | 5 |

CHAPTER 2: LITERATURE REVIEW

| | | |
|-----|--------------------------------------------------------------------------|-------|
| 2.1 | Introduction | 6 |
| 2.2 | Theoretical Base | 6-16 |
| 2.3 | Factors influencing the response behaviour of firms to disruptive Change | 17-20 |
| 2.4 | South African Context | 20-22 |

CHAPTER 3: RESEARCH QUESTIONS

| | | |
|-----|-------------------------|----|
| 3.1 | Research Question One | 23 |
| 3.2 | Research Question Two | 24 |
| 3.3 | Research Question Three | 24 |

CHAPTER 4: RESEARCH METHODOLOGY

| | | |
|-----|-------------------------|----|
| 4.1 | Introduction | 25 |
| 4.2 | Research Design | 25 |
| 4.3 | Population of Relevance | 26 |
| 4.4 | Unit of Analysis | 26 |
| 4.5 | Sampling method of size | 27 |
| 4.6 | Questionnaire Design | 28 |
| 4.7 | Data gathering | 28 |
| 4.8 | Data Analysis | 30 |
| 4.9 | Research Limitations | 30 |

CHAPTER 5: RESEARCH RESULTS

| | | |
|-----|-------------------------------------|----|
| 5.1 | Introduction | 32 |
| 5.2 | Description of the sample | 32 |
| 5.3 | Overview of participating companies | 33 |
| 5.4 | Results of qualitative interviews | 33 |

CHAPTER 6: DISCUSSION OF RESULTS

| | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 6.1 | Research question 1: How do firms respond to impending disruptive change? | 66-79 |
| 6.2 | Research question 2: What are the organisational challenges associated with confronting disruptive? | 79-84 |
| 6.3 | Research question 3: What role does a firms resources, capabilities & competencies play in influencing its response to a disruptive change | 85-89 |

CHAPTER 7: CONCLUSION

| | | |
|-----|-------------------------------------|-------|
| 7.1 | Introduction | 90 |
| 7.2 | Observations | 90-94 |
| 7.3 | Recommendations | 94-95 |
| 7.4 | Recommendations for future research | 95-96 |
| 7.5 | Conclusion | 96 |

CHAPTER 8: REFERENCES 97-103

Annexure 1 104-105

CHAPTER 1: INTRODUCTION TO RESEARCH PROBLEM

1.1 Research Problem

Many firms are faced with disruptive change, from consumer, information telecommunications, to health care. Since disruption in a firm may cause uncertainty, it can affect the variability as well as the level of performance (Helfat & Bailey, 2005).

Disruptive change therefore threatens the fit with the environment which in turn affects the performance of the firm. Thus firms that operate in such environments need to reinvent themselves in ways that achieve better fit between the firm and its environment (Ganesh, Madanmohan, Jose, & Seshadri, 2004).

The South African health care system is currently undergoing a major revamp with the implementation of the National Health Insurance (NHI); and the key stakeholders such as the pharmaceutical firms, private hospitals, and medical distributors will be affected. The question therefore is how firms should reinvent themselves to survive when faced with impending disruptive change.

In the context of this study, disruptive change will come about as a result of the NHI, which aims to increase accessibility of people to the health care system. According to the NHI Green Paper (2011), NHI will bring major changes in the service delivery structures, administrative and management services. The NHI promises to put pressure on pricing of health care services, and this is expected to pose a threat to the affected service providers especially the private health care business.

The total population of South Africa is approximately 52 million people (Stats SA, 2011), of which approximately 8.5 million is serviced by the private health care system (Council for Medical Schemes, 2012). The implementation of the NHI will mean a widening of the private health care market from the current 8.5 million to 52 million people, as well as an increase in competition. The government and the private sector will compete for the same market. Ultimately South Africa will not have a distinct private and public sector, but a health care system which is available to all who can afford it.

The private health care system will be affected by these changes in one of many ways. Their makeup is currently not geared to serve very large volumes of people. For their

business to remain viable, they cannot forgo their current share of customers, unless they compete on high prices for that small market, which is not likely going to be possible.

The current private health care business model is not geared to cater for a diverse market which comprises a combination of poor rural people and the rich urban middle and upper class. The anticipated outcome of the change in the healthcare business structure through the NHI will therefore cause a disruptive change in the private health care industry in South Africa. The private health care business will have to justify its existence; and their strategy will have to change for these companies to remain in business.

The assumptions that follow are that the NHI will give rise to the following situations; central purchasing of medicines by the state, pressure on pricing of health care services, and a potential shift of customers from private to public health care services.

Central buying of medicines:

Assuming that this is true, does the government have the necessary resources, capabilities and competences to meet this challenge? Is the infrastructure in the public sector geared for fulfilling this challenge? The answer is most definitely no.

Pressure on pricing of health care services:

The pressure on pricing will force the private sector to develop new competences to deal with this challenge. Are we therefore likely to see a rise in generic medicines and low cost health care service models?

Potential shift of customers from private to public health care services:

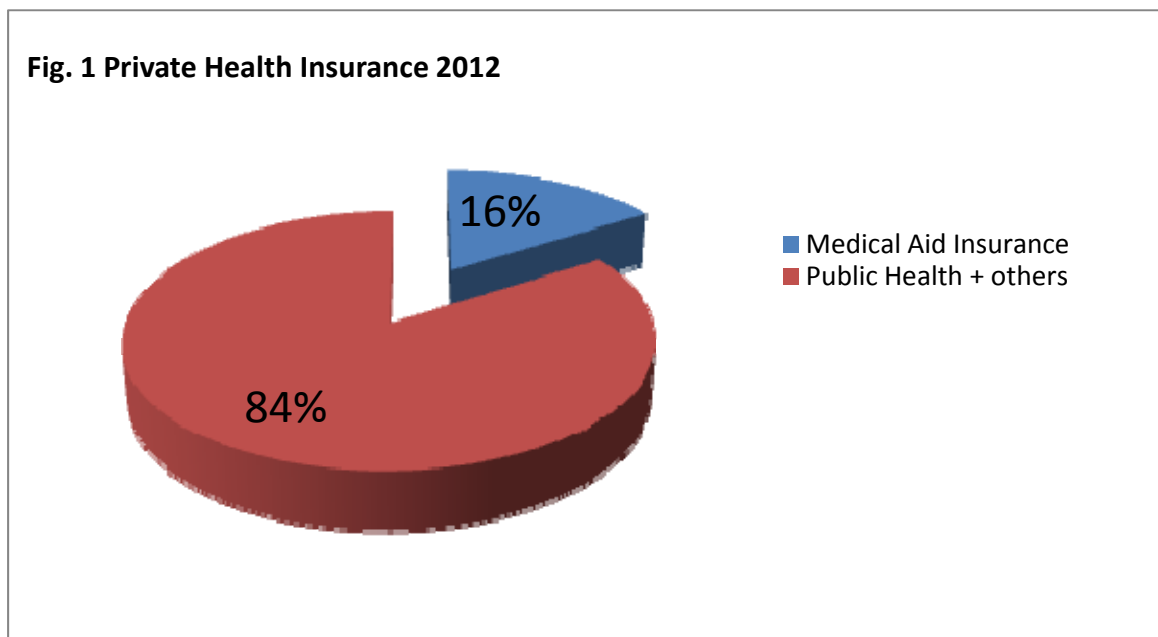
A competitive landscape under the NHI may result in incremental improvement in the quality of service in the public sector such that over time the private health customers may shift to public health care and in the process also benefit from affordable prices.

This is the basis for disruptive change in the market place. The original structure of the market will no longer exist. For pharmaceutical firms the key customer will change from being the private business to government, and that will be followed by an expectation for cheaper medicines. Private hospitals and medical distributors have to find innovative ways to compete with the public sector on prices, and one of the ways may be through public-private partnerships.

The question that this research is trying to ask is how do these firms prepare or reconfigure their resources to counter the impending disruptive change and still remain sustainable.

1.2 Research Motivation

Healthcare is an essential service and access to quality healthcare is expensive, especially to the poor majority of the people in South Africa. Furthermore the escalating cost of private health care as illustrated in **figure 1** cannot be left unchecked, as only about 16% of the total population has access to private health care through private medical insurance (Council for Medical Schemes, 2012).



Derived from Council for Medical Scheme 2011 - 2012

The introduction of the NHI is aimed to make quality health care accessible to every South African irrespective of their income level. However this may pose a threat to the survival of existing firms in the health care system, which may as a consequence have an impact on the success of the NHI.

According to Porter & Teisberg (2006), in a normal market competition drives improvements in quality and efficiencies over a period of time. Disruptive innovation, advocate, Hwang & Christensen (2008) leads to significant reduction in costs and efficiencies in a short period of times, thereby increasing access to innovative products and services by economically marginalised people.

Why is this not the case in the health care industry where according to Porter & Teisberg (2006), a combination of high costs, unsatisfactory quality, and limited access to health care has created anxiety and frustration for all participants?

Amongst a number of recommended solutions to this problem, is the control of drug costs through negotiated low prices, and in so doing encouraging the use of generic drugs. Others advocate a central buyer system in which government provides a national health insurance, and thereby provide the state with powers to control costs and potentially squeeze out the private health insurance altogether (Porter & Teisberg, 2006).

There is a potential to alleviate some of the existing challenges in the health care system through public-private partnership. The government alone cannot solve the current problems of high costs, and limited access to health care without help from the private sector. For instance it is fact that the state lacks necessary human resource capacity to deliver effective health care services, notably in areas of people management, supply chain management, financial management, and information communication and telecommunication (ICT) systems. Coincidentally these happen to be the very same areas which the private sector excels at. It is important to also note that lack of human resource capacity is a challenge across government and private sectors, and also in developed and developing economies.

Thus the NHI presents an opportunity to deliver affordable quality health care service through a well-designed innovative business model. However, the necessary resources, capabilities, competencies and relevant priorities are needed to attain that goal. A collaborative effort between the public and private sector as well as the restructuring of the current health care business model are some of many ways in which quality and affordable health care service can become accessible to everyone in South Africa.

The question that this research aims to answer is how do these firms prepare and/or configure their resources into capabilities that will enable them to compete within the realms of the new context and still be sustainable.

1.3 Research Aim

The aim of this research is to understand the response of existing firms whose existence is threatened due to impending disruptive change.

The research will:-

- a. Assess the nature of the change introduced by NHI.
- b. Assess the intended response behaviour of firms when faced with the impending disruptive change.
- c. Compare and contrast the intended strategic responses across the 3 categories – pharmaceutical manufacturers, medical distributors, and private hospitals.
- d. Assess the anticipated organizational challenges associated with confronting disruption.

1.4 Research Scope

The research will be conducted amongst South African firms who conduct business in pharmaceuticals manufacturing, medical distribution, and private hospitals, to determine their response behaviour to impending disruptive change.

Only firms who are registered with the South African Pharmacy Council and the Department of Health will be included in the study, as these are the firms which are bound by the law to comply with all relevant government regulations.

2. CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The field of strategic management is about how firms achieve and sustain competitive advantage (Teece, Pisano, & Shuen, 1997). A disruptive change has the potential to threaten the ability of firms to maintain competitive advantage. Thus firms need to respond to disruptive change in ways that will neutralise the threats and exploit the opportunities.

The central focus of this research is best described by 3 key bodies of knowledge; disruptive theory, resource-based view, and strategic choice. These theoretical frameworks will help to create an understanding of the options that are available to firms in their attempts to respond to disruptive change. Various factors that affect their response behaviour will also be highlighted and discussed.

The literature review will be made up of previous research that is considered relevant to this research topic. The first section of the literature review will define and describe organisational strategy, which is considered a critical starting point to this research topic; and then a discussion on the evolution of disruptive theory.

The second section of the literature review will argue the *relevance* of resource-based view, and strategic choice theories within the scope of disruptive change. The third part will briefly discuss factors that have an influence on how firms respond to disruptive change. The final section will discuss the implications of literature on NHI.

2.2 Theoretical Base

2.2.1 Organisational Strategy

Chandler (1993, p.13) defined strategy as, “the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals”.

The optimal strategy is characterised by as a perfect “fit” between the various elements of the organisation (resources, capabilities, competencies, and priorities), and the external environment. Any form of disruption will result in misalignment of one or more of the above key elements and thus a potentially adverse effect on a firm’s business performance.

Wright, Van Der Heijden, Burt, Bradfield, & Cairns (2008) argued that for continued survival, an organisation's strategic decision making must achieve retention of the organisation's alignment with the external environment. Consequently if the organisation's strategy is no longer in alignment to its external environment, "pressure for change" will develop (Wright et al, 2008).

Disruptive change threatens the fit with the environment which will affect the performance of the firm. Thus firms that operate in such environments need to reinvent themselves in ways that achieve better fit between the firm and its environment (Ganesh et al, 2004).

Some firms are able to adapt to disruptive change based on their superior resources, capabilities and strategic flexibility (Nichols-Nixon & Woo, 2003). How well a firm responds to disruptive change is influenced by the manner in which it configures its resources into unique and thus competitive capabilities, and its ability to respond to changes in the environment at a fast speed. The theory of resource-based view sets a good foundation for a strategic response to challenges that often come about as a result of disruptive change.

Child (1997) argued that firms have and do make strategic choices when faced with a particular environment. In other words not all firms will adopt the same strategy.

Conclusion

The long term success of a firm depends on its ability to maintain a constant fit between its strategic goals and the external environment. Significant changes in the environment may cause a disruption that cannot be ignored if the firm wishes to remain competitive in the same market.

According to the NHI Green Paper (2011), the NHI will cause a disruption in the health care industry by causing;

- i) a complete transformation of healthcare service provision and delivery;
- ii) the total overhaul of the entire healthcare system
- iii) the radical change of administration and management
- iv) the provision of a comprehensive package of care underpinned by a re-engineered Primary Health Care. (NHI Green Paper, 2011).

As a result, the affected firms' resources may need to be modified to form a new configuration of capabilities and competences that will become relevant in the new context.

In the same breath, a firm may choose to abandon the present business context and compete in a different market.

2.2.2 Disruptive Innovation

Disruptive innovation supports the view that firms need to continuously reinvent themselves in order to survive and prosper in today's changing environment (Danneels, 2002). This view is echoed by Haveman (1992) that firms operating in changing environments are compelled to adjust their strategies and structures in order to survive.

The theory of disruptive innovation is very broad, such that different terminology is often used to describe the same concept. Typical terms such as disruptive technologies, disruptive innovation, and disruptive change are often used interchangeably. They may sound and appear to have the same meaning, but in reality they differ in many ways.

The theory of disruptive innovation was made popular by Christensen in 1997 in his book entitled "The Innovator's Dilemma". He classified innovations as sustaining and disruptive. Sustaining technologies are those that serve the mainstream market. They offer products with superior performance features, some of which exceed the level required by the mainstream customer. As a result they are usually more expensive.

Disruptive technologies on the other hand provide a different value to customers compared to sustaining technologies. They provide products that are simpler, cheaper, smaller and more convenient to use; thereby destroying the value of existing technologies and create new markets (Christensen, 1997; Ireland, Hoskisson, & Hitt, 2011). In short disruptive technology changes the basis of competition by changing the performance metrics along which the firms compete (Danneels, 2004).

Consequently, products that are based on disruptive technology do not satisfy the basic performance requirements that are set to meet the expectations of the mainstream market (Danneels, 2004). The disruptive technology initially only satisfies the small market

segment whose expectations are satisfied by the performance of the disruptive technology. The market disruption occurs when despite its inferior performance; the disruptive technologies cause the displacement of mainstream product in the mainstream market (Yu & Hang, 2009).

Hwang & Christensen (2008, p. 1329) expressed their position in promoting the process of disruptive innovation for driving “cost reducing technologies with innovative business models to deliver affordable and accessible products and services”. Christensen (2006) refined the description by suggesting that the disruption is relative, and not absolute; thus disruptive change may be beneficial only to one company due to differences in its business model, compared to another.

Evolution of Disruptive Innovation

Christensen’s use of the word “technological innovations” which was largely influenced by his research on hard disk drive industry exposed him to many critics in later years. For instance it was argued that his research was confined to technology industry and excluded the other business forms (Markides, 2006).

In avoidance of such critics and to also extend the application of the theory beyond technological products, and to also include services and business model innovations, Christensen & Raynor (2003) published another book entitled “The Innovator’s Solution”. In this book they replaced disruptive “technology” with disruptive “innovation” to extend the scope of disruptive innovation to other business models.

“The Innovator’s Solution” was not sufficient in deterring criticism from other researchers such as Markides (2006) who argued that all innovations are disruptive to incumbents, however treating them in a generic way as Christensen did was not correct. They may have similar disruptive effects on incumbent firms, but have different managerial implications, and that different types of innovation require different responses from incumbents (Markides, 2006).

In an attempt to support her argument, Markides (2006) introduced two examples of disruptive innovation; business-model innovation and radical product innovation. She described the business-model innovation as the discovery of an essentially different business model, such as Amazon in the book retail business (Markides, 2006). Radical

innovation on the other hand was described as the type of innovation which results in creation of “new-to-the world” product, such as VRC’s and the mobile phone (Markides,

2006). These innovations differ considerably from technological innovations and the response of incumbents is expected to differ as well.

Whereas Christensen (1997) explained that disruptive technology innovations eventually grow to dominate the market, Markides (2006) argued that in so far as business-model innovations are concerned, new ways of competing in business grow but never really replace the old ways.

Conclusion

The theory of disruptive innovation gives guidance to one of many ways in which firms may effectively respond to a disruptive change. Firms that choose to innovate may want to innovate in a disruptive manner. They may choose to reconfigure their value offerings in ways that are difficult for others to copy, or may choose to compete on low cost or even partner with key stake holders.

The theory of disruptive innovation is supportive of the creation of new business opportunities. The theory of Disruptive Innovation appears relevant to the NHI concept. The NHI may be considered as an “innovative service” and the private health care as “sustainable service”. The innovative nature of the NHI would thus reflect a service that is initially cheaper, and of relatively lower quality and wider accessibility compared to private health care. It may also appear less appealing to the “mainstream” customers who are presently being serviced by the private healthcare system, and therefore enjoying the best doctors and health care facilities.

However, through proper collaboration with some of the key stakeholders such as doctors, pharmacist, suppliers, and hospitals; the quality of the NHI services would show incremental improvement to such an extent that even some of the mainstream customers who are currently being serviced by the private healthcare gradually move to public health care institutions that would be offered by the NHI.

2.2.3 Resource Based View

The resource-based view is founded on the assumption that the responsiveness of a firm to an opportunity or threat depends on its unique resources, and capabilities. Resources are valuable when they are used to exploit the opportunities and neutralise the threats in the firm's environment (Ireland et al, 2011). The resource based model suggests that the exploitation of the firm's unique resources and capabilities contributes to its competitive advantage, and its ability to earn above average returns (Newbert, 2007).

Competent managers are needed to manage the firm's resources effectively, as this process involves effective selection of resources, bundling of resources to capabilities and leveraging capabilities to exploit opportunities in the environment (Sirmon, Hitt, & Ireland, 2007). Barney (1991) argued that only if a resource or capability results in reduced costs and/or responds to environmental opportunities and threats will it be considered to be valuable to the extent that it enables the organisation to utilise such core competences, will it attain a competitive advantage. The success of the firm depends on effective exploitation of the valuable resource-capability combination (Newbert, 2007).

Firms maintain their adaptiveness to change by both exploiting their existing competencies as well as exploring the new ones, and this view is better illustrated by the response of Indian pharmaceutical firms who were subjected to regulatory changes in patent laws (Kale & Wield, 2008). Indian pharmaceutical firms used exploitative and explorative learning as a response to anticipated disruptive regulatory change. As a result these firms were able to survive and compete with the multinational corporations by exploiting their existing process R&D capabilities as well as exploring investment in R&D to develop innovative product R&D competencies (Kale & Wield, 2008). Ultimately they were able to compete head on with the multinationals in their own back yards, to such an extent that an Indian company (Alpha Laboratories) ranked amongst the top ten generic companies in the world (Kale & Wield, 2008).

As a general caution, core competencies become core rigidities overtime. The strategies of yester-year may no longer be relevant in the new environmental context. Lucas Jr & Goh (2009) echoed the same sentiment that in confronting disruptive change, a firm may fail to respond appropriately, because core capabilities may have become core rigidities.

This reality is well illustrated in the Kodak case in which the firm's competitive advantage which was in the past embedded in their people, culture and structure became the main hindrance to the firm's response ability to disruptive change that came about with the digital technology.

The learning from the Kodak case is that factors that helped the firm meet its business strategy in the past may become the core rigidities that may be responsible for its failure in the future. The internal organisational factors may become the source of failure if the key components of organisational change are not taken into account in the face of disruptive change.

Resources

Firms gain competitive advantage through both tangible and intangible resources (Uhlenbruck, Meyer, & Hitt, 2003). Intangible resources are the most valuable source of competitive advantage because they are “invisible” and are difficult to copy (Uhlenbruck et al, 2003). Resources alone do not guarantee a firm competitive advantage unless a firm configures, and exploits those resources well (Sirmon & Hitt, 2007). Ireland et al (2011), in support of this view suggested that resources may have a chance of becoming a source of competitive advantage when they are formed into a capacity.

According to Sirmon et al (2007), the resource based view suggests that valuable and rare resources provide the source of value creation. In addition, this value creation is sustainable when those resources are impossible to copy and also lack substitutes (Barney, 1991).

According to Combs, Ketchen Jr., Ireland, & Webb (2011), resources can generate superior performance on a sustainable period provided they satisfy the following criteria; (1) they must be valuable to the firm such that they assist firms increase their efficiency and competitiveness; (2) they must be unique or rare so that they are not readily available to competitors; (3) they must not be easy for competitors to imitate and substitute.

Firms gain competitive advantage by (1) structuring their resource portfolio in a comprehensive way, (2) bundling those resources to develop capabilities and (3) leverage those capabilities to create value to customers as well as shareholders (Sirmon et al, 2007)

Thus a competitive advantage is gained when the resources are reconfigured and deployed appropriately within the firm’s environmental context (Lippman & Rumelt, 2003).

Resource management process is influenced by the environmental context in which the firm operates (Lichtenstein & Brush, 2001), because the firm has to bundle resources into capabilities that are ready to exploit the opportunities that are being presented by the external environment (Sirmon et al, 2007).

Firms have an option to develop resources internally, or acquire them from external sources. It is probably a quicker alternative to acquire readily available resources as a way of increasing the firm’s viable option of responding to uncertainty than to attempt to build new resources from scratch (McGrath & Nerkar, 2004).



Capabilities

Capabilities are repeatable patterns of actions in the use of assets to produce and offer products to the market (Wade, & Hulland, 2004). They transform inputs into outputs of greater value (Christensen & Overdorf, 2000), and can include skills or processes (Wade, & Hulland, 2004).

Flynn, Jinhui Wu, & Menlyk (2010, p. 248) gave a summary definition of capabilities as, (1) firm specific; (2) emerge gradually over time; (3) are tacit; participants may be unaware of their existence; (4) are influenced by a firm's history and the actions of its leadership.

Brush & Artz (1999), discovered that the type of services offered by the firm and the level of information asymmetries in the environment, have an influence on the value of capabilities. The value of a particular set of capabilities must be evaluated in the market context within which a firm is operating (Barney, Wright, & Ketchen Jr, 2001). In dynamic environments, what were valuable capabilities may no longer be valuable in a different market context (Barney et al, 2001). Forte, Hoffman, Lamont, & Brockmann (2000) suggested that the likely cause of failure is when the firm's distinctive capabilities are no longer applicable in the changing environmental context.

The ability to learn and the ability to change are among the most important capabilities that a firm can possess in unstable environments (Barney et al, 2001).

Conclusion

The resources and capabilities that bring firm's success in a stable environment are often sustained over extended period of time whilst the same resources and capabilities in unstable environments are short lived as the disruptive nature of the environment undermines their value (Wade & Hulland, 2004). Intangible capabilities appear to be more useful in unstable environments due to their ability to be inimitable, and thereby contribute to competitiveness of the firm in such environments.

2.2.4 Dynamic Capabilities

According to Lopez (2005), dynamic capabilities form a subgroup of a firm's capabilities, which allows for creation of new process which enable a firm to respond to changing environmental conditions.

Teece, et al. (1997, p.516), defined dynamic capabilities as, "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing

environments.” They went further to emphasise that “dynamic” referred to the capacity to renew competences in order to achieve alignment with the changing competitive environment; while the term “capabilities” emphasised the role of strategic management in ensuring that the internal and external resources and competences match the changing environment (Teece, et al, 1997, p.515).

Dynamic capabilities are therefore different from ordinary capabilities by being concerned with change (Winter, 2003). For this reason the dynamic capabilities are more relevant than the ordinary capabilities in a disruptive change environment.

2.2.5 Strategic Flexibility

According to Ireland et al (2011) strategic flexibility is a set of capabilities used to respond to opportunities and threats that exist in uncertain environments.

Uhlenbruck et al (2003), described the strategic flexibility process as the way in which; (1) firms adapt organisational structure and processes to allow for quick and efficient flow of information, so that the firm can identify market opportunities and resources needed to exploit them; (2) management integrates firm’s resources in order to achieve internal consistency and strategic flexibility, that is necessary to take advantage of market opportunities.

Strategic flexibility is more relevant in the health care industry due to unpredictability of the competitive environment. In support of this view, Engau, Hoffmann, & Busch (2011) suggested that regulatory uncertainty is typically resolved discontinuously and abruptly, which is why strategic flexibility is crucial in industries such as the health care which experience regulatory or legislative changes more often.

In addition firms can also anticipate the potential consequences of changing regulatory position and attempt to prepare for them, or adapt immediately and efficiently as soon as the regulatory conditions become clear (Engau et al, 2011).

Similarly Shimizu & Hitt (2004) described strategic flexibility as the firm’s capability to identify major changes in the external environment, quickly commit resources to new courses of action in response to those changes, and recognise and act promptly when it is timely to stop or reverse existing resource commitments. In other words, it is about having the ability to identify challenges and reverse resource commitments quick and efficiently (Shimizu & Hitt, 2004).

Firms are faced with a dilemma in responding to opportunities and/or threats in their environmental context due to disruptive change. They may either respond quickly by committing resources to neutralise the potential disruptive change and thus benefit through first mover advantage, but risk potential sunk costs due to resource commitment to more than one possible environmental scenario. Or else adapt quickly and efficiently to the new environmental conditions as soon as the new regulation becomes well defined, and benefit by committing less resources to new environmental conditions and thereby lose competitive advantage due to late mover disadvantage (Engau et al, 2011).

Strategic Flexibility in Uncertain Environments

According to Hitt et al, (1998), firms that operate in dynamic markets need to develop strategic flexibility and be able to be proactive and respond effectively to changing competitive conditions, in order to develop and/or maintain competitive advantage.

Highly uncertain and dynamic environments require firms to have strategic flexibility in order to respond to challenges efficiently and quickly (Shimizu & Hitt, 2004). In support of this view, Nadkarni & Narayanan (2007) suggested that complexity promotes strategic flexibility, which is desirable in uncertain environments. The importance of speed in responding to challenges is a very useful capability in highly uncertain environments (Shimizu & Hitt, 2004). In addition firms that are more alert to changes in their competitive environment are able to adapt to changing market conditions quicker than their competitors (Barney et al, 2001).

The uncertain conditions in the external environment dictate the way in which firms should manage their resources and configure their various capabilities (Sirmon et al, 2007).

Conclusion

Strategic flexibility is a set of capabilities that are useful for responding to disruptive change especially in uncertain environments such as the health care industry. The ability of firms to respond quickly and appropriately to disruptive change can be considered a competitive advantage over.

A unique set of resources and capabilities is required to give firms the ability to be agile and responsive to disruptive change in a manner that will present them with the first mover advantage.

2.2.6 Strategic Choice

Strategic choice is the way in which leaders shape conditions and processes within or outside the organisation in order to effect a competitive advantage over its competitors (Child, 1997). The interaction between strategic choice and environmental circumstance determines firm success (Dawley, James, & Bruce, 2002). The role of leadership is associated with external entities, and that consequently have great influence to organisational outcomes (Geletkanycz & Hambrick, 1997).

Furthermore, organisational profiles reflect the characteristics of senior management (Geletkanycz & Hambrick, 1997). For example, the change of leadership at General Electric (GE) saw changes in the firm's growth strategy from through mergers & acquisitions during Jack Welch's tenure, to organic growth by way of breakthrough innovations with the takeover of Immelt as the new CEO (Bartlett, Hall, Bennett, 2008).

Child, Chung, & Davies (2003) described the environmental strategy and organisational strategy, as the way the organisation chooses the product/market domains in which it chooses to participate in and then select the structures and resource allocations to be adopted within that chosen domain, respectively. The influence of external contacts extends beyond information seeking, however, to affect interpretation as well, as decision makers sometimes look into their counterparts in an effort to draw meaning from multitude of information presented by the environment.

According to Wood & Michalishn (2010), firms with strong competitive orientation are willing to compete directly by leveraging the innovative capabilities of the firm. The General Electric case (Bartlett et al, 2008) gives a good illustration of the strategic choice concept, in which Immelt leveraged off the organisation's core competencies in order to exploit the looming opportunities in the environment. As leadership he inflicted a self disruption on GE's current strategy without any pressure from the external environment, and by so doing was able to gain cooperation from everyone in the organisation in pursuit of growth by way of exploiting their internal competencies.

Firms achieve alignment with the environment through the following three strategic domains: entrepreneurial, administrative and technical (Wood & Michalishn, 2010). Entrepreneurial refers to how firms position itself to the market place; administrative focuses on strategy implementation, and technical refers to the technology and processes of delivering value to customers (Wood & Michalishn, 2010).

2.3 Factors influencing the response behaviour of firms to disruptive change

2.3.1 Firm's Attributes

The failure to respond optimally and timely to changing environment, is not only a management fault, but is also related to other factors (Atwater, Gopalan, Lancioni, & Hunt, 2010).

Haveman (1992) listed certain organisational internal constraints such as capital investment in plant, equipment, and specialised personnel; internal politics supportive of vested interest; and organisation history which justifies past action, as some of the factors that prevent the organisation from considering alternative strategies.

Davis, Eisenhardt, & Bingham (2009) suggested that optimal structure is necessary for firm's good performance in uncertain environments. They argued that a moderate structure is critical to high performance for firms in unpredictable environments. Dynamic environments require flexibility to cope with the sort of opportunities and potential threats that are being presented; too much structure causes rigidity and too little structure leads to inefficiency; moderate structure ensures a balance between these two states and thus likely to result in high performance (Davis et al, 2009).

Too much structure exposes the firm to a state of stagnation and misalignment with the new opportunities; on the other side, too little structure makes it impossible for the firm to improvise effectively in its attempt to capture opportunities (Davis et al, 2009).

For the purpose of this research only the following firm attributes will be discussed in order to attempt to make meaning to the research topic: age, size, past performance, and strategic focus.

Age

Older organisations tend to be more rigid and develop inertia (Hanna & Freeman, 1984 as cited in Atwater et al, 2010). In support of this view, Ginsberg & Buchholtz (1990) explained that change is more disruptive to an older organisation with traditional ways of doing business than it is to a younger organisation which still is in a state of change. They based their opinion on the demise that young firms may not have yet institutionalise organisational norms, and are thus less likely to resist pressures to change.

Old successful firms pride themselves with what they call a proven formula and a deep and embedded organisational culture, which is associated with an almost inflexible

structure. The staff often find it challenging to adapt to new ways of doing things; and an effective organisation transformation strategy is what such firms need.

Size

Larger firms are generally more complex structurally, and tend to be more established in terms of their personnel roles. Because large firms have to deal with many staff members, they develop formal policies and procedures to coordinate the work flow (Ginsberg & Buchholtz, 1990). Under these circumstances, existing policies have become institutionalized and need for change may be ignored. On the contrary, smaller organisations tend to be more flexible and responsive to environmental changes (Hanna & Freeman, 1984 as cited in Atwater, 2010).

Past Performance

Poor past performance has a potential to motivate the firm to make strategic changes in order to improve the situation (Atwater et al, 2010).

Burgelman (2002) applied the concept of co-evolutionary lock-in, to illustrate the point that the firm's past success has an influence in its new chosen strategy. Burgelman (2002) described co-evolutionary lock-in as a feedback process that joins the firm's prior success to that of its current product market environment, thereby making it difficult for the organisation to change its strategic direction.

Prior Strategy

Grimm, Corsi, & Smith (1993) proved empirically that a firm's response to a disruptive change was directly related to its prior strategy.

Forte et al (2000) revealed that firms who are poorly aligned to the new environmental context transform themselves to a better suited organisational form. In other words, as the costs to change strategies increase, the less likely that firms are to make strategic change. Atwater et al (2010) points that there are instances when not changing a strategy may be appropriate, such when the firm is already committed to their preferred strategy; or when they decide to take the "wait-and-see" approach until the disruption has subsided.

Grimm et al. (1993) supports this notion that a firm generally finds it difficult to change its strategy if its previous strategy was based on large investments of fixed assets.

Conclusion

Christensen & Overdorf (2000) warned against companies who make drastic adjustments to their organisations when faced with disruptive change. They suggested that companies need to be clear on what types of change the existing company is capable and incapable of handling (Christensen & Overdorf, 2000).

Dixon, Boal & Hoffman (2003) diffused the misconception that all firms need to adapt their strategies in response to changes in their external environment. Their argument is based on the notion that firms can derive benefit from inertia.

The theory of strategic choice argues that the decision to change a firm's strategy rests on management and is not necessarily related to the external environment. The resource-based view within the context of disruptive change explains that the firm's potential to change its strategy is dependent on the availability of the necessary resources and capabilities needed to align the organisation to the external environment as presented by the disruptive change. One may thus argue that if the firm is incapable of competing in the new environment due to lack of necessary resources and capabilities, it may simply choose to compete in a totally different market.

Forte et al (2000) advocated the influence of the organisation's form on the firm's response to environmental change. They argued that some organisations find it difficult to change their strategies when faced with uncertain environment, in ways that are inconsistent to their business models. Furthermore this is usually the case when the firm's core capabilities are no longer relevant to the new environmental context (Forte et al, 2000).

Disruptive change causes misalignment between the firm's strategic actions and the external environment. The firm has a choice to regain that alignment or abandon the new environment and compete in other markets. Mainstream literature suggests that firms adapt to uncertain conditions in ways that help them regain equilibrium with the environment.

In an attempt to regain equilibrium with the external environment, the firm resorts to exploiting its internal capabilities and/or develop new capabilities in order to explore new opportunities in the external environment. This supports the integrative view that both environmental conditions and organisational capabilities influence a firm's response to disruptive change (Lengnick-Hall & Beck, 2005).

Through adaptive fit, firms are able to embrace the disruptive nature of the changing environment, thereby minimising the potential disruption to the organisation (Lengnick-Hall & Beck, 2005).

2.4 South African Context

2.4.1 National Health Insurance

The NHI is a policy umbrella with the intention of providing high quality low cost service. The idea behind it supports the vision of the constitution that it people should have access to health care.

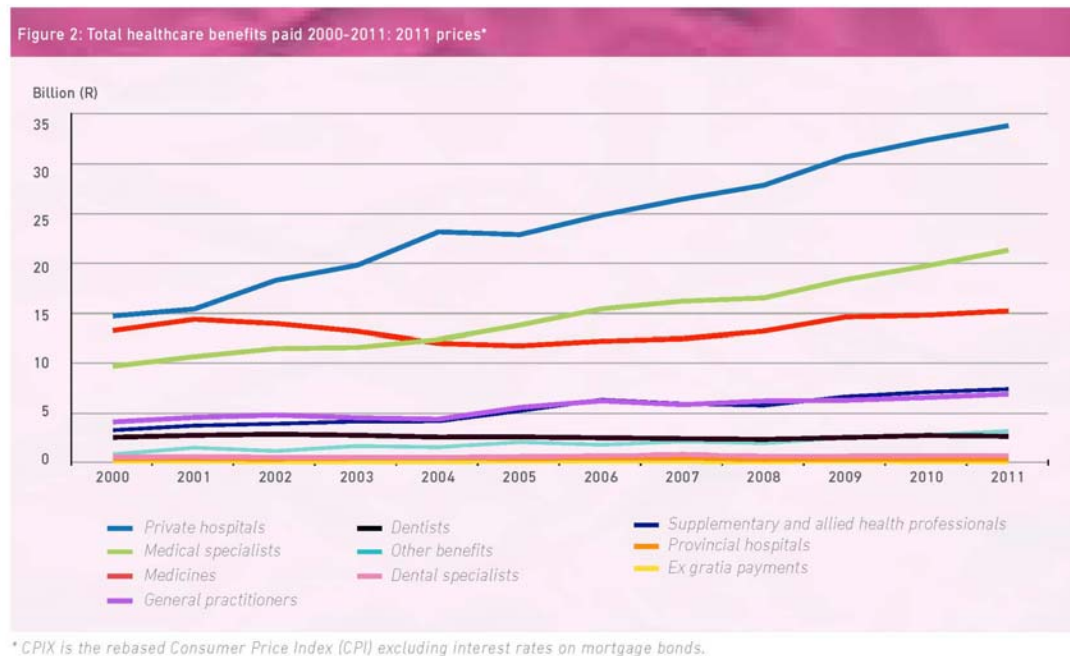
The two objectives of the NHI that are more relevant to this study are; (1) to provide improved access to quality health services for all South Africans irrespective of whether they are employed or not; and (2) to strengthen the under-resourced and strained public sector so as to improve health systems performance. (NHI Green Paper, 2011)

The Minister of Health, Dr. Aaron Motsoaledi in his presentation to the Board of Health Funds (2012), listed the following preconditions to NHI;

- i) The quality of health care in the public sector will have to improve drastically,
- ii) The pricing in the private health care sector will have to be regulated in line with the constitution.

The rationale for the introduction of NHI is to eliminate the current tiered system of health care delivery, in which those with the greatest need have the least access to health care services, and have suffered poor health outcomes (Van den Berg, 2011). According to the Council for Medical Schemes Annual Report (2012), as indicated in Figure 2, the 2011 medical schemes collection showed an increase of 11.3% from 2010 to a total of R107.4 billion.

Figure.2: Total Health Care Benefits paid 2000 - 2011 (Council for Medical Schemes, 2011 – 2012)



The cost of medicines is undoubtedly very high, and that on its own may be viewed as a justification for government intervention. However, when considering the costs that go towards research and development, it makes sense for the pharmaceutical industry to set high prices in order to ensure reasonable returns on their investment. Rosen (2002)

revealed that approximately \$450 million in the US alone in 2002 was spent in developing and marketing the branded drugs that were approved for patent.

However the situation is different in the generics market; companies incur low costs from producing the generic drug because the branded company has already researched the chemical structure (Rosen, 2002). The law in Canada forces the pharmaceutical companies to share their medical innovations with other companies. The costs of drugs consequently decrease as more companies compete for same drug market.

The NHI program in South Korea has been in place since 1989, and by 2008, 97% of the population was on NHI (Yang, Bae, & Kim, 2008). The major challenge to the NHI program was the high prices of medicines that saw the government spending increasing by about 20% annually since the inception of the program (Yang, Bae & Kim, 2008). South Africa is expected to experience similar challenges.

2.4.2 Implications

Any changes to the private health care market in South Africa are expected to become a major subject of concern for the industry. Furthermore, the drug pricing and reimbursement system may also undergo change with the introduction of the NHI, with systems to control drug expenditure potentially to be introduced, including price caps and sole purchaser schemes.

The implementation of NHI will increase consumption of prescription medicines, as more people will have access to healthcare. The demand for prescription medicines will increase, but so will the stringency of cost containment strategies by the government. It is therefore expected that the pharmaceutical companies will revise their business strategies in anticipation of the potential changes in the market.

2.4.3 Options based on literature

Porter & Teisberg (2006) proposed that the way to transform health care is to realign competition with value for patients. Yang et al (2008) suggested that industry strategy should ensure that resources serve the highest priorities of the population's health needs in an efficient way.

In other words, theory favours innovation of the health care system in order to provide affordable and quality health care that is accessible to all people. Firms need to possess appropriate resources and capabilities that will give them a competitive edge. Some of the capabilities and competencies needed are ways to deliver low cost services and products, such as generic drugs, and low cost hospital care.

The resource-based model highlights the need for a private-public partnership since government alone would not be able to deliver a successful NHI programme due to lack of necessary resources and capabilities, of which the human capital, supply chain, and IT system are the noticeable ones. Finally the government is the ultimate critical factor to ensure that the delivery of the NHI becomes a success, through appropriate political will and transparency of financial management processes.

3. CHAPTER 3: RESEARCH QUESTIONS

This research is forward looking, because it seeks to explore the intended behaviour of firms in the health care industry in South Africa to an impending disruptive change, in the form of NHI. The research questions will be used because the NHI is still a proposed legislation; as it has not yet been enacted. As such the literature does not address the research questions directly.

The literature review revealed few theoretical themes that may potentially have an influence on how firms may respond to impending disruptive change. This research will only focus on three of them, by probing deeper in the manner in which they influence the intended behaviour of firms to disruptive change.

The central theme is disruptive change; which proposes that firms that are exposed to disruptive change may respond by creating disruptive innovations; in an attempt to provide affordability and accessibility of health care to customers thereby ensure their continuance.

The second theme is the resource-based view which advocates that firms respond to disruptive change by configuring their resources and capabilities in alignment to the new competitive environment. The third theme is strategic choice, which according to Child (1997) is the way in which leaders shape conditions and processes within or outside the organisation in order to effect a competitive advantage over its competitors.

As a result, the research seeks to gain answers to the following research questions as posed to respondents who represented three health care business clusters in South Africa; pharmaceutical manufacturers, medicine distributors, and private hospitals:

3.1 Research Question One

- **How do firms respond to impending disruptive change?**

This was the main research question and its aim was to assess the response behaviour of the selected firms to the proposed NHI. It was meant to establish the level of preparedness of firms and the anticipated impact of NHI in their business.

3.2 Research Question Two

- **What are the organizational challenges associated with confronting disruption?**

This research question was meant to assess the intra-organisational factors such as the lack of resources and capabilities that may render the firm unresponsive to the threats and opportunities caused by the NHI. This research question also sought to determine if the firm's current strategy had any influence in the responsiveness of the firm to disruptive change. According to literature, the firm's current strategy has an influence on its strategic response to disruptive change.

3.3 Research Question Three

- **What role does firm's resources, capabilities and competencies play in influencing its response to a disruptive change?**

The resource-based view is founded on assumptions that competitive advantage is shaped by the firm's unique resource endowments (Barney, 2001).

The aim of this research question was to establish the role of firms' resources, capabilities, and competences in influencing their response to a disruptive change.

4. CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The study aimed to explore how firms in the health care industry responded to the impending disruptive change. The study was based on the anticipated impact of the NHI in the health care industry, that it would cause a disruptive change.

The research was forward looking and thus could not be based entirely on historical information if the researcher wished to gain valuable insights of the challenges facing the firms under the study.

The purpose of this chapter was to discuss the methods and techniques used to attain the results in Chapter 5.

4.2 Research Design

The research method that was used was qualitative and exploratory in design. Saunders & Lewis (2012) recommended that exploratory research was well suited to qualitative methods, and was about discovering general information about a topic that was not understood clearly by the researcher.

Zikmund (2008) suggested the use of exploratory research in identifying and clarifying decisions that needed to be made. In this study the researcher sought to understand the decisions taken by firms when exposed in a situation of disruptive change.

The research approach involved in-depth, semi-structured interviews, using open-ended questions with the aim of eliciting views and opinions from the participants (Cresswell, 2009). The methodology used in this study is supported by Barbour (2008) who suggested that interviews are considered the “gold standard” of qualitative research as they provide an opportunity for an in-depth exchange between the researcher and the respondent.

According to Jankowicz (2000), the use of semi-structured interviews allows the researcher flexibility to steer the respondent to answer certain previously identified issues within a topic predetermined by the researcher. This allows the researcher more control of the interview in terms of the order and timing of questions.

4.3 Population of Relevance

A population consists of all entities of interest in a study (Albright, Winston, & Zappe, 2009). The population of relevance in this study consisted of, pharmaceutical firms, private hospitals, and medical distributors, who were currently conducting business in South Africa (**Table 1**). The reason for selecting these three groups was because of their direct dependence on the NHI fund as their potential future source of revenue.

These firms were all registered with the Department of Health and the South African Pharmacy Council. The reason for selecting the registered firms was to restrict the scope of the research to registered and thus legally compliant firms. It is a regulatory requirement for all firms who operate a business of handling medicines to be registered with the relevant regulatory authority. Pharmaceutical companies and distributors fall under the jurisdiction of the South African Pharmacy Council; and the private hospitals under the Department of Health.

Table 1: Population and source of information:

| TYPE OF FIRM | SOURCE OF DATA | NUMBER OF FIRMS |
|-----------------------------|---------------------------------------------|-----------------|
| Pharmaceutical firms | South African Pharmacy Council (SAPC) | 267 |
| Medical supply distributors | South African Pharmacy Council (SAPC) | 288 |
| Private hospitals | Hospital Association of South Africa (HASA) | 31 405 |

4.4 Unit of Analysis

According to Blumberg, Cooper, & Schindler (2008), the unit of analysis describes the level at which the research was performed and which objects were researched. The unit of analysis for this research consisted of pharmaceutical companies, medical distributors, and private hospitals. Two senior managers at each of the three business clusters were interviewed at different times during the course of data collection.

4.5 Sampling method and size

According to Blumberg *et al* (2008), a sample is used to draw inferences about the population and as such it should represent the characteristics of that population.

A non-probability, purposive sampling technique was used because the researcher used his own judgment in selecting the sample based on a number of reasons that will be discussed later (Saunders & Lewis, 2012). Thus the researcher has selected samples that have met his specific purpose, even though they were not fully representative (Zikmund, 2008).

Also due to factors such as geographic location, availability of respondents, time and financial constraints, a random probability sampling technique was not to be considered. Non-probability samples are often analysed using qualitative analysis techniques (Saunders & Lewis, 2012).

The list of elements from which the sample was drawn is known as the sampling frame (Blumberg *et al.*, 2008). The sample frame in this study was known; it was all the firms whose names appeared on the company registers at the South African Pharmacy Council and the Department of Health at the start of the research in April 2012.

A sample size of seven companies was used in the study. **Table 2** contains a list of companies and designations of people who participated in the study as interviewees. Senior managers were being targeted for the interviews because the design, execution, and monitoring of the corporate strategy are embedded in their roles.

Three health care clusters, pharmaceuticals, distributors, and private hospitals, were selected for the research. Within the pharmaceuticals cluster, one generic and two innovative medicines manufacturers were identified. The reason was to establish the extent to which the different groups would differ in the manner in which they respond to the NHI.

The researcher selected similar size firms in order to diffuse any potential interference in the results due to differences in firm sizes. The ultimate goal of the research was to assess, compare and contrast strategic responses across and within the 3 categories – pharmaceutical manufacturers, medical distributors, and private hospitals.



4.6 Questionnaire Design

(The interview guide is in Annexure 1)

A questionnaire is useful if it collects data that are needed to answer the research questions, and if the questions asked are understood and interpreted by the respondents in the way the researcher wanted them to be understood (Saunders & Lewis, 2012).

The questionnaire in this study was designed to give answers to the research questions. The aim of the exercise was to design questions that would be easy for respondents to read and understand, and that would equally be able to help answer the research questions.

The order of questions was also meant to be logical to the respondents rather than the researcher (Saunders & Lewis, 2012). The crucial part of the questionnaire design process was to check if the desired responses to the chosen interview questions were going to add value or contribution to the body of knowledge or replicate what had been done before.

4.7 Data gathering

Data was gathered in the form of face to face, one on one, semi-structured interviews (Cresswell, 2009). The interview questions started with general open ended questions, asking the participants how they perceived the challenges posed by the NHI and how they intended to deal with them (Sandstrom, Magnusson, Jormark, 2009).

The use of open ended questions and probes was used to yield in-depth responses about people's opinions and points of view without pre-determining the responses through prior selection of questionnaire categories (Patton, 2002).

Two participants from each of the firms listed in **Table 2** were interviewed separately at different times. A location that was considered convenient for the participants was chosen. Different respondents chose different interview venues, however most of them preferred to be interviewed at their places of work. The interviews were recorded using a model 900D Bell Office stereo voice recorder.

During a semi-structured interview, the interviewer questioned the participants on a set of predetermined questions, but varied the sequence in which the themes were covered and questions asked (Saunders & Lewis, 2012).

Table 2: Overview of the sample

| CLUSTER | COMPANY | NAME OF RESPONDENT | DESIGNATION |
|---------------------------------|-------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------|
| Pharmaceuticals (Innovative) | Company A Laboratories [A] | Mhanqwa Khumalo [A1] (mhanqwa.khumalo@Company A.com) | Financial Director |
| | Company A Laboratories [A] | Themba Mnguni [A2] (Themba.mnguni@Company A.com) | State Relations Manager |
| | Astra Zeneca [B] | Christo Kruger [B1] (Christo.kruger@Company B.com) | Vice-President, Commercial Business |
| | Astra Zeneca [B] | Martin Magwaza [B2] (martin.magwaza@gmail.com) | Marketing Manager |
| Pharmaceuticals (Generics) | Company C [C] | Noel Guliwe [C1] (noel.guliwe@Company Cpharma.com) | CEO |
| | Company C [C] | Nicole Edelstein [C2] (nedelstein@Company Cpharma.com) | Regulatory Affairs Manager |
| Medical distributors | United Pharmaceutical Distributors (COMPANY D) [D] | Vikesh Ramsunder [D1] (vramsunder@Company D.co.za) | MD |
| | United Pharmaceutical Distributors (COMPANY D) [D] | Dr. Thandi Hall [D2] (thall@Company D.co.za) | Head of Sales and Marketing |
| | Company E [E] | Tracey Glover [E1] (tglover@za.go2uti.com) | Client Services Executive |
| | Company E [E] | Ravina Govender [E2] (agors@za.go2uti.com) | Quality Executive |
| Private hospital | Company F [F] | Gerard Augustine [F1] (gerard.augustine@Company F.co.za) | Marketing and Sales Director |
| | Life Group [G] | Dr. Farai Shoniwa [G1] (farai.shoniwa@lifehealthcare.co.za) | Business Projects Manager |
| | Life Group [G] | Mark Stafford [G2] (mark.stafford@lifehealthcare.co.za) | General Counsel |

4.8 Data analysis

Data analysis method that was used was the combination of pattern, theme, and content analysis (Patton, 2001). The challenge of data analysis in a qualitative research lies in making sense of the huge amounts of data; which involves screening out trivia from significance and identifying significant patterns (Patton, 2002).

The researcher conducted a key word search on interview discussions that were held with the selected respondents (**Table 2**). The aim was to identify the common theme/s across the three business clusters and then use the literature review to identify the theoretical home in which those themes belonged to (e.g. disruptive change, resource-based view, strategic choice), with the view of identifying a dominant school of thought across and/or within the selected business clusters.

The content analysis is a technique of searching text for recurring words or themes, as well as identifying common patterns (Leddy & Ormond, 2001; Patton, 2001). Patton (2001) also described the term pattern as referring to a descriptive finding; while a theme takes a more categorical or topical form (Patton, 2001).

The audio recorded semi-structure interviews were then transcribed into a word document and analysed for common themes within and across the clusters. The data analysis was performed by means of rank and frequency tables separately for each cluster and then combined for all the clusters.

4.9 Research limitations

Non probability sampling does not make it possible for full representation of all members of the population, and thus the research results may not be used with full confidence to represent the whole population.

The quality of this study depended on the nature and quality of the research technique used, and also on the reliability and validity of information obtained from the respondents. In qualitative research, the interpretation of the results is influenced by the researcher's biases and prior expectations (Leddy & Ormrod, 2001).

Researcher may be seen as intrusive and consequently confidential information may be observed that researcher cannot report. Researcher may not have good attending and observing skills and the audio material may be difficult to interpret (Creswell, 2009).

The researcher attempted to alleviate the challenge of validity and researcher bias by interviewing at least two different people from each firm. The interviews in each firm involved a Chief Executive Officer (CEO)/Managing Director (MD) or a director, as well as another senior member of the management team. In so doing the researcher was able to compare the results between the two respondents as means of data validation. (Leddy & Ormond, 2001; Sandstrom et al, 2009).

Senior managers and CEO's who were being interviewed were generally "busy" and that may have an effect on the quality of their participation in the study.

The study was forward looking and thus there was no relevant historic data available to compare the interview findings against. Furthermore qualitative research is subjective in nature and thus depends a lot on the experience of the researcher in ensuring that only the relevant data is obtained from the respondents and interpreted to make sense in answering research questions.

The original plan was to include two companies from the generic medicines producers and innovative medicines producers respectively. Due to a cancellation by one of the generics companies, this was not possible, and also it was too late to bring in a replacement.

Secondly, the researcher wanted to interview two participants from each of the selected companies in order to ensure the validity and reliability of the results. This was also not achieved due to cancellations by one respondent from Company F.

5. CHAPTER 5: RESEARCH RESULTS

5.1 Introduction

This chapter presents the results of data collection and analysis as described in Chapter 4. The results contain responses from audio recorded semi-structured interviews with 13 respondents from three different business clusters within the health care industry in South Africa.

Two companies were selected from private hospitals, and medical distributors, respectively. Three companies from pharmaceutical manufacturers were also selected. The original plan was to select two generics and two innovative pharmaceutical companies in order to establish the differences in their response strategies to NHI. The price pressure that is being threatened by the NHI was expected to affect the innovative pharmaceutical manufacturers more than the generics companies, and hence the expected differences in their response strategies.

Data analysis involved the identification of the main themes from the interview conversations. The results were then compared within and across the chosen clusters, as well as their relation to the research questions in Chapter 3. The results were used as inputs in the discussion phase in Chapter 6.

5.2 Description of the sample

A non-probability, purposive sampling technique was used and for that reason the sample consisted of carefully chosen companies in the health care industry. The selection criteria focused on companies that were likely going to be affected by the NHI in varying degrees.

A total of seven companies were selected (**Table 2**), of which two were private hospitals and medical distributors respectively. The last three were pharmaceutical manufacturing companies; two innovative medicines producers and one generic medicines producer.

5.3 Overview of participating companies

Table 2 gives an overview of participating companies (Refer Page 30)

5.4 Results of qualitative interviews

The interview respondents comprised 13 senior managers representing companies from each of the chosen seven firms as shown in **Table 2**. The sample was selected to assess the response behaviour of firms to the proposed NHI legislation.

The interview questions (**Annexure 1**) were used to extract data to address the following research questions:

- **Research Question 1: How do firms respond to impending disruptive change?**
- **Research Question 2: What are the organizational challenges associated with confronting disruption?**
- **Research Question 3: What role does a firm's resources, capabilities and competences play in influencing its response to a disruptive change?**

The audio recorded semi-structure interviews were then transcribed into a word document and analysed for common themes within and across the clusters. The data analysis was performed by means of rank and frequency tables separately for each cluster and then combined for all the clusters.

The purpose of the rank and frequency tables was to identify the most popular themes as extracted from the interviews in order to prepare for discussion in Chapter 6. The ultimate goal was to use literature review in Chapter 2 to identify the dominant schools of thought and by so doing making it possible to answer research questions in Chapter 3.

The results will be reported in the following sequence: pharmaceutical manufacturers, private hospitals, medical supply distributors.

5.4.1 Pharmaceutical manufacturers

Three pharmaceutical manufacturing companies were selected for inclusion in the study (**Table 3**); one a generics manufacturer (Company C), and two innovative manufacturers (Company A and Company B). A total of five people were interviewed as respondents in the study.

All five participants agreed that the NHI was a good initiative by the South African government. However they raised a strong warning that South Africa may not be ready at this stage due to lack of necessary infrastructure and human capacity to manage NHI.

They also warned that the NHI policy was still very vague at this stage, but believed that it would bring price pressure to the industry. They also feared that the government may be tempted to want to source from elsewhere cheaper such as India and China, if the local industry did not meet the NHI mandate of low cost drugs.

Only the top five strategic responses were presented in the rank and frequency **Table 3**, for the purpose of highlighting their value in attempting to answer the research questions. Only the top three will be discussed below. The top three responses of most importance as voiced by the respondents were; *Leadership, State Relations, Customer Service, and Human Resources*.

Collection of data

Five interviews were conducted during business hours, and the fifth one was conducted after hours. The two Company C respondents were interviewed at a coffee shop; the two Company A respondents were interviewed at the Company A offices in Sandton; and the Respondent B2 was interviewed at GIBS, and Respondent B1 at Company B offices.

All interviews were recorded with a voice recorder and then the results were transcribed into a word document in order to enable data analysis.



A. Company A

Company A wants to be a major player in the State business, more so with NHI. According to respondent A1, NHI should have a positive impact to the organisation, if it is well implemented and managed. Furthermore it should expand the pool of patients, given that only about 8.5 million patients out of 52 million are currently insured at the moment. The NHI will bring 43 million plus more people into the pool, and therefore, “there can only be an upside”.

The respondent A2 also shared the same sentiments that the NHI was a good idea. He remarked that “It’s a noble principle”. He also added that Company A was a member of an industry group called IMSA (Innovative Medicines of South Africa) which had also made a public statement that it supported the idea of the NHI and that if implemented well it could significantly improve the health care system in South Africa, and improve the business in general.

When asked how the NHI would impact Company A, respondent A1 commented that it would impact Company A in a positive way depending on how one looked at it. Company A currently has 65% of the total business coming from the private sector. If Company A now had to focus in the State business, Company A would need to review the whole business model and make sure that it positioned itself to be able to capitalise on the new legislation and make sure that it is there and is recognised in the public sector business. He added that it would be a good opportunity if Company A had the right price and products to meet the requirements of the NHI.

Challenges

Respondents A1&2 warned that though they had indicated that the NHI was bringing positive aspects to the Company A’s business, they also brought challenges along. They spoke about challenges associated with distribution of products to patients and the lack of availability of people with the necessary competence to drive the NHI. However, they also suggested that some of the resource and capability short comings could be solved through partnerships with the private sector.

They also raised concerns in the state’s capacity in terms of infrastructure, inventory management and human capacity in dealing with the challenges of the NHI as it would increase the number of people into the health care system.

The company also feared government's ability to fund the NHI initiative.

"If we supply to the state, will we be paid on time, because currently the state does not pay on time".

In addition they believed that there would be a change in the flow of funds, and that would have a major impact, because the company may start losing some of their premium clients, who always paid on time.

Company A also fears that the NHI may only become relevant to some of the therapeutic classes in which Company A doesn't play, thus making them irrelevant. Products that have contributed to their success such as the ones used in erectile dysfunction may become irrelevant. The company believes that mainly the products that are indicated for use in diseases cases that affect the majority of the population such as TB (tuberculosis), diabetes, and hypertension, will become relevant in the NHI. Companies who are not able to provide such products will become irrelevant.

1) **Generics**

Both respondents A1&2 seemed to agree that one thing for sure that will be brought about by the NHI will be the pressure to lower the cost of drugs, and that would mean the change of focus by most companies to generic medicines, because they are priced lower than innovative drugs. According to them, Company A has started to consider becoming a significant player in the generics space.

From Company A's Global perspective, the need to focus on generic products has been recognized. Within the established products business units, there is the arm that drives the generics business. In South Africa Company A has already launched a couple of generics products that are already in the market under the Pharmacia brand, their generics subsidiary. Company A's strategy, in meeting the low cost demands of the public sector is based on leveraging off the Pharmacia generics brand by continuing to growing it, and by so doing making them a relevant player within the public health arena.

At the moment there is a project team that is looking at acquiring more products that will compete in the generic space and thus become cheaper, so that Company A may be relevant in the NHI space. Respondent A1 added that he felt that Company A was taking the right steps in ensuring that the company beefed up its products portfolio to align it to

the needs of the NHI. That should enable the company to be in a position of bettering its chances should there be opportunities to tender a supply contract with government and thus make them more competitive.

When asked why the innovative drugs could not compete with the generics in terms of price, he answered that in theory there should not be any significant reason, except that the innovative drugs were research based. He explained that Company A had spent a lot of money on research and development and that there was a great need to recover the costs, and one of the ways was through patent registration so that the company could sell exclusively at prices that would incentivize it to continue exploring new molecules.

He also pointed out that Company A had this year, and last year been able to beat some generic players in their pricing proposal to the government. Therefore there is nothing that says Company A cannot compete with generics head to head. There are just various ways of pricing in the state that vary from how the pricing is done in the private sector.

He added that because these products had undergone vigorous research, they would naturally attract a premium in the market place, not because that was aimed at the patient, but was meant to recover costs.

On the contrary with generics, you don't incur large research costs; all you have is production cost. In South Africa there is an added pressure on innovative drugs manufacturers that comes from many fronts, one from the government in the form of the Single Exit Price (SEP) which puts a cap on medicine prices. The other comes from the private health funders who do not pay for every drug; they have put in place mandatory substitution requirement that forces dispensing pharmacists to inform patients about generic alternatives.

When asked what they were doing as a company to mitigate the impact of low cost generics on their business, they explained that they have formed some local partnerships and strengthened their generics business. They have some generics products which are in the pipeline which would be rolled out in the coming years, and that they will continue to add to that portfolio of generic products.

They explained that the advantage that they have as Company A is that, their generic products will have Company A's name backing. They will come from a source that is approved by Company A in terms of quality and regulatory compliance; the stringent

quality controls that are currently being practiced by Company A all over the world will apply.

“They will be branded generics with Company A’s name, and there is value in that”.

For those reasons Company A was planning to be a player in NHI.

2) Decision making process and Strategic flexibility

Company A is a subsidiary of a multinational company with head quarters in the United States. When asked to explain their decision making process considering their position as the local subsidiary, they explained that it has its own bureaucracy, however at the end of the day it is not inefficient bureaucracy. Respondent A1 made an example that,

“it may mean that a piece of paper needs to pass 10 people before it can be approved, as long as it happens quickly it may not affect the business. Speed of decision making is what is key, not the flow of decision making”.

He added that furthermore the NHI was a continuation of what was happening internationally. Therefore they have recognized that they needed to play not because of the NHI, but because of the changing healthcare environment, not just in South Africa but globally. Company A is also losing patients like all other multinational companies. The company had come to terms with the reality that the edge of blockbusters was pretty gone. In addition they have few niche products; however they are not going to close the gap of the big block buster drugs. One of the options left for the company was growth area in generics. According to respondent A1, the generics are growing double digit, while the innovative drugs were only growing single digit to declining, and “that is going to be the trend for a while”.

Furthermore he remarked that how Company A plays in their markets, is an indication of how well they respond to changes in the market place. He added that fortunately in their case it plays right into the NHI environment, which is largely cost driven, big volumes, low cost, and based on economies of scale. Company A is on the proactive side, but they are not creating a structure to deal with NHI, but they are putting their thoughts together around the NHI.

When asked what other things they were doing to further their responsiveness to NHI, the respondents answered that they talk about NHI all the time. They look at every piece of legislation, every policy statement made, they figure out what it means for the business. They may conclude that it means nothing for the business but they would have done their work.

Respondent A1 remarked that “we are doing everything within our power to be a player within South African industry”. One of the changes that they have put through is related to the preferential procurement policy, which identifies the pharmaceuticals as a priority industry. According to him, 70% of products that are put on tender have been allocated to local manufacturers. As Company A they are busy working on a lot of projects with local partners. They have got some local partners that they are working with.

Company A is also considering to become involved in some local manufacturing, however although there is reservation for local manufacturing the company will still play a major role. They continuously try to get their products as cheap as possible, and that involves alternative sources of manufacturing, and managing costs in house. They believe that will help to drive costs down to a competitive level where they will still be able to compete.

They also mentioned that the company had tried hard to remain relevant in the South African environment by aligning its business strategy to the local environment. For example the way government runs its business is driven by the awarding of tenders based on a number of criteria such as price, BEE (black economic empowerment) position, which for Company A, right now is reasonable. Their BEE score is level 6, meaning that they are not excluded from playing with the rest.

However, price remains a major factor because the state emphasizes that besides having a quality drug, which is taken for granted because every drug that comes into South Africa is checked for quality. Therefore the generics have an upper hand all things being equal.



3) Pricing

According to the respondents A1&2, price will be a major factor in the NHI environment, and that if it does not, and then the NHI will be doomed, because “the government will be ripped off”.

They pointed out that the government had already started putting measures on medicines as can be witnessed with the ARV’s (antiretroviral drugs), in which they have forced prices down by 40% from the previous price. They stated that the Department of Health had stated that they were going to drive the prices down.

4) Capabilities

When asked how the company resources and capabilities contributed to their readiness in responding to the NHI, they answered by stating that they approached the NHI and other government legislation from many fronts. Internally they have got highly skilled people, which is partly why they are still in existence. They have got people who can interpret things and really pull out the interpretations.

Also they are members of industry associations such as IMSA (Innovative Medicines South Africa), and SAAPI (South African Association of Pharmacists in Industry), which give them a platform to share with other players and brainstorm ideas, and put up a position which helps the industry to interact with the government.

Over and above that, they have the benefit of being part of a global player. There are plenty of resources throughout Company A’s global team where they can tap from, and learn what has been experienced in other parts of the world. They work with the global team on anything, and they will go up to the global team and pull out what has been learnt; “so we are well prepared”.

Company A pride themselves with their broad product portfolio, which according to respondent A1,

“...pretty much covers every part of the body, from head to toes with its product offering”.

The company has had some block buster products like Lipitor (anti-cholesterol), and also it is competing in very good therapeutic areas (disease cases).

5) Public – Private Partnership

When asked about the role of the private sector during the NHI, Company A stated that they believed that the private sector would still play a significant role during the NHI. They explained that most private hospitals are well equipped, and have the state of the art infrastructure which is not available in the government hospitals.

However they warned that over time as you get incremental improvement in the public sector such that you will then get people moving over. What may happen is that, with NHI you may still get private treatment, because the government will not have the entire infrastructure to cater for the entire population. Therefore people will still have to use the private facilities that are there. There will be some arrangement with private practitioners. But the private sector will not be eliminated, but will get smaller. The NHI will not cover every item that is currently covered in the private sector. NHI will be looking at the basics, and those who have private cover will be spoiled for choice.

They also remarked that the private sector would have some idle capacity, as the numbers dwindle in the private sector hospital, prices will even go up and that will push more people to the public healthcare.

6) State Relations

When asked if Company A had the necessary talent and skills to deal with the NHI, respondent A2 indicated that one aspect that the organization might want to focus on is ensuring that they have strong relations with the government at a strategic level,

“....to ensure that they are not caught up napping when the NHI is being rolled out”.

That would ensure that Company A has got the right people at that level, so that the company understands where the government is going so that they prepare themselves effectively before the implementation takes place.

B. Company B

Respondent B2 felt that the NHI would bring a lot of goodwill to the South African population and a lot more people would have access to quality healthcare as a result. However he raised some doubts about its execution, pointing on the lack of leadership, in terms of good quality managers who knew business, and who knew the public administration arena.

Respondent B1 added that,

“...it is appropriate for a country like SA, where the disparity of income on the GINI coefficient is still larger than 0.71 and basic access to healthcare has not been addressed from the medicines and quality point of view”.

When asked how he thought Company B would be affected by the NHI, Respondent B2 indicated that business would be affected in two fold. First, the size of the business in terms of volumes and numbers could potentially increase by a very large magnitude. Secondly, he said that he foresaw a rapid decrease in the average price of drugs, but the volumes would compensate for that. He also added that the composition of the portfolio of drugs that Company B has, will have to change substantially.

“We are going to need a lot more lines to cover a wider scope in terms of disease therapeutic areas that are aligned to the NHI”.

Respondent B1 indicated that the NHI would cause some shrinkage of the pie because of the overflow of that 3.1 million people to the group that will not be able to pay for innovative medicines.

In terms of company background, the responded was asked what had been their source of success as a business over the past years. His answer was that,

“...it's very simple, good quality products, they launch well in the market that is ready for them at a good price. We've just been able to commercialise novel products at the right time. Good leadership that is focused on execution, just broadly speaking, alignment to be at the right place at the right time”.

When Respondent B1 was asked what resources and capabilities he consider unique to his firm that would make them more responsive to NHI, he explained that,

“We are very lean compared to a lot of companies of our revenue size. So it makes decision making a lot faster. We all have a common issue of being a multinational because we have always escalate decision making to the region and global teams which again delays decision making in some senses. We’ve got a very strong marketing and sales arm”

1) Product Portfolio

Respondent B2 explained further that by wider product portfolio expansion he means that traditionally the multinationals would have blockbuster drugs in key disease areas such as cardiovascular (high blood pressure, heart problems, etc), some in areas of anti-infective (antibiotics, etc.). That would form the portfolio of the organisation. Now if you look at the priority diseases in the government, they spend beyond that. Lifestyle disease are indeed important but non communicable disease (like oncology, haemophilia), and so forth are increasingly becoming a focus.

Both respondents explained that in order for Company B to remain relevant they need a strong portfolio of anti-infectives for diseases like HIV and TB, and for management of opportunistic diseases of those infected by HIV.

Respondent B1 explained that,

“Companies who are positioned for growth must be positioned in specific therapeutic areas. If you look at the infection primary care area, from HIV, TB, normal infections that are treated by antibiotics. Those are disease areas that will benefit from it.”

Furthermore he said that, in a volume driven market volumes are good but you can only realise economies of scope by having a much broader portfolio of products. In that way you benefit from every potential cent that government spends in healthcare as supposed to being a specialist in one disease area. He stressed that there was a need to change portfolio fit to be aligned with the new reality, that of the NHI.

According to Respondent B1 Company B is very concentrated from a portfolio perspective. 70% of their business is generated by 5 products.

He further explained that, Company B was dependent on a portfolio of products; and that their focus was not that of diversifying.

He explained that,

“There are 3 strategic routes in SA. One you niche yourself with the current portfolio. The other you diversify like in a sense of Pfizer with more than 100 molecules, Sanofi with more than 100 molecules. These companies are now going the generics route and bringing in generics beyond their core business. That is a diversifying route. Then you get partnership route, where companies like GSK directly partner with companies like Aspen with even shareholding combination there. MSD partnership with Adcock”.

2) Decision making and strategic flexibility

When asked how agile his company is in terms of responding to a disruptive change, such as the NHI, he remarked that,

“I don’t think that we are positioned or we position ourselves to be a force to be reckoned with in the new paradigm”.

He further explained that some of the reasons behind that is, as an affiliate in a big multinational there are usually priorities that are put forward to them by head office in the UK (United Kingdom). But he does not think that the local context has been a major driving force in decision making at that level.

“So in fact we may be losers in certain areas”.

When asked about the challenges that he thought would be brought about by the NHI to Company B he explained that the pace of decision making was shocking. “It is way too slow”. He added that locally based manufactures would beat them consistently and repeatedly at every attempt to get business with the state, purely because of how they make decisions and the processes involved. He further indicated that it was just the way the company was structured;

"It is very risk averse".

When asked what was contributing to the challenges as he had explained, he answered that it was for a large extent bureaucracy.

"The level of hierarchy like any other multinational is just appalling".

He explained further that a local decision can be taken or proposed to a local CEO who has to seek approval from someone else senior in the region who in turn has to propose it to global level, who may delay the response because they have their own priorities. By the time that decision is made it is either too late or the goal post has shifted or circumstances have changed which requires the company to present a new case.

He gave an example where a decision needed to be made within 2 weeks in order to grab the market opportunity, but it took 3 months and by the time a go ahead was given, it was too late.

When Respondent B1 was asked how Company B planned to respond to the challenges of the NHI, he explained that,

"Everybody is focusing on NHI, but I think that you need stay true to who you are as a pharmaceutical business. You need to know who you are and where you are playing with the core of your business and how much drop off there will be because of the NHI. Our focus is to function lean in a private sector and leverage our resources, and look at innovative ways of engaging on our private sector companies".

3) State Relations

When commenting about state relations, the respondent indicated that Company B as an organisation was strategically positioned to be a partner with the government in the NHI. He added that one of the biggest problems that the private sector companies are faced with is being spectators and just rely on business driven consumerism with little focus on partnership with the state. He emphasised that,

"We see the state as an enforcer of regulations, and laws and not so much a strategic partner with whom we can co-create the future".

He added that it is actually an industry wide problem; Company B is pursuing this to a very small scale. He also stated that Company B was late movers in that area.

When asked what steps they were taking to strengthen their relations with the government, he explained that the first one is the partnership we have with the Department of Health and various state hospitals in educating patients in things like breast cancer;

“Company B pays for volunteers to go to the deepest darkest communities to train people and educate the masses about breast cancer, the importance of self examination; to train patients to detect early so they could live longer”.

The second area is the cost of our drugs. Company B have taken the stance right away that, they will price their products as low as they can in the state sector. Respondent B2 remarked that,

“.....there are few examples where we surprised everybody”.

He also added that they need to develop new competences with fewer resources. He made an example with Company C. He said that they have a huge portfolio of commodities. They have grown so rapidly to a market capitalisation of R50 billion in less than two decades. It boils down to the strategic alignment within the organisation.

“The relationship that Company C leadership has with the government is phenomenal”.

They have demonstrated to all that if you want to win in this area you better be aligned to what your biggest customer requires. The customer being called government; calling for local manufacturing. They will discriminate against those who import. He further indicated that Company C hadn't offered any new products in terms of innovation. Their innovations were coming from processes, value chain, business model, areas in which the multinationals have not been good at.

When asked what internal organisational factors that may be affected by the NHI, Respondent B1 answered that Company B was not positioned ideally for the state sector though they play in the state sector with some of their products on Oncology; they are not big players like other multinational companies who have diversified their portfolio to cover other areas like TB. Furthermore he explained that the local companies are better positioned because of their BBBEE position and the ownership piece. Multinational companies in general will be dispositional because the rating system will play a key role in the NHI tender and procurement system.



4) Generics

When asked what steps Company B was taking in response to the NHI in order to ensure that it maintained its competitiveness, respondent B2 explained that, there had been some structural changes to facilitate more rapid expansion of their product portfolio. Secondly they have registered a new entity generics entity, which will become their sort of second brands, “our generics wing”.

They believe that would give this new entity a lot more autonomy. It will be locally based, will have a lot more agile decision making capability, more free and flexible to form a lot of local strategic partnerships with lot of stakeholders. Secondly whilst it will be affiliated to Company B it will not be subjected to the sort of very stringent requirement of Company B as a multinational.

It will be a spin off from what is good in Company B, but it will be a lot more entrepreneurial venture with a lot more flexibility. It will have a lot more autonomy from Company B and regional requirements.

C. Company C

The feeling from Company C was that the NHI would affect them in a positive manner. They saw it as an opportunity for increased demand of what they already had to offer. For example they have been successful in meeting the demands of the government antiretroviral drugs (ARV) tender; Company C received 70% of the total ARV tender business. Therefore the NHI would present increased demand for their products.

Also they considered themselves as being well favoured by the preferential procurement policies which favour local manufacturers like Company C.

Challenges

The first respondent indicated that he feared that the NHI would bring about margin squeeze and loss of volumes, because they would be unable to compete on price and that might cause them to lose access to volumes in the public sector. In addition he said that if they did not have those volumes, they would suffer in their cost of goods for even the products that would normally be sold in the private sector.

The opportunities that will be presented by the NHI much depend on the way the government prepares itself for the implementation. The second respondent warned that there needed to be a lot of improvement in the infrastructure and employment of the right people into various key positions for managing the NHI.

Procurement methods would also present challenges especially in terms of the government's ability to pay.

1) Leadership

When asked about Company C's source of competitiveness, Respondent C1 explained that in different management levels they have different capabilities. Also that people were differently capable, for example the group CEO of Company C was an,

"...entrepreneur par excellence, and had an uncaring ability to see value and drive it hard".

Also that he had a passion for detail and expected his managers to do the same. He further indicated that one of the common things you would see is his attention to detail, and that he had a rose for opportunity, like acquiring the distribution contract with the big multinational company GlaxoSmithKline (GSK).

However, he stated that each level of the organisation had people who had different skills and knowledge which helped to cascade whatever was required from top, right to the bottom of the organisation. According to him, the bulk of Company C's success came from the skills and knowledge of their people, and the abilities of their managers to make sure those people continued to do the right thing day in and day out.

He also added smilingly that one of the least known things about Company C was the number of doctorate qualifications which the company employed, and hoped that one day someone would talk about the skill and knowledge that Company C developed.

To highlight the value of leadership at Company C, Respondent C1 indicated that,

"Part of our responsibility as managers we are put on raised platforms so that we can look into the future today. Part of CEO's job is to look into the future and bring the future disruption today".



He stressed that you do not wait until disruption comes, you bring the disruption today.

He further stated that those who were placed in raised platforms knew what to look for and knew what to do when scanning the environment. He explained that part of his work as a CEO was to talk to the likes of Discovery and ask what their future plans were. He said that in key accounts management,

“...you don’t only sell products to your customers, but you also want to know how you can make them succeed too”.

He made an example with Discovery that they were under pressure from the government to lower their prices, and that they would achieve that by squeezing all their input costs. Furthermore he indicated that it required a collaborative approach, by engaging senior leadership in those companies such as Discovery, Clicks, and Company F to ensure that the entire industry survived.

Respondent C2 pointed their source of success to leadership and made an example of how they turned around Sigma, an Australia company which was not doing well because it was poorly managed and they managed to turn it around.

She explained that the leadership team at Company C was really superb, and that the results spoke for themselves. Furthermore she pointed that they could not have been making profits for the past 15 years if they had not had excellent leadership. She remarked that,

“I’m very proud of our achievements as if I have achieved them personally”.

2) State relations

Company C respondents prided themselves that they had the best possible contacts in government. One respondent explained further that their lobbyist had contacts in places other managers in the industry did not have. He also mentioned that their Group CEO was also very active in talking to the ministers in parliament, such as the Minister of Health, and Minister of Trade & Industry, bringing up concerns and ascertaining new policy matters.

According to respondent C1 as far as capabilities are concerned for responding to the NHI, Company C have the best in the industry in terms of diligence and industriousness.

Company C has got the best connected person in the industry and that can only benefit Company C. Respondent C2 remarked that,

“We call him our lobbyist, because of his influence to government”.

Their representatives meet with the Department of Health (DOH) often when there are issues to resolve. Furthermore Company C works closely with government to try and assist where there are policies being formulated; that gives them the opportunity to exert “correct” influence, not only for ourselves but also on behalf of the industry. They say proudly that,

“We lobby government where necessary”.

On the other hand the company was continuing to talk to those who shape policy in government to try and understand what they had in mind in terms of the NHI. However so far they have not been very helpful because they themselves did not know much.

3) Customer service

When asked how they would best respond to the NHI, the respondent explained that customer service was critical, and that they put the strongest person in front of the customer. In that way they win or lose in direct interaction with the customer. He further remarked that it made sense that the best person talking to the customer had the ability to engage the customer at the highest possible level.

He further indicated that the kind of sales representative that they wished to have in the future is a highly skilled individual with good experience, well trained, both in the industry and in business. They would like their key account manager to be able to articulate what they want to do as an organization, but with a keen appreciation of what a key account wants to do. They therefore want to ensure that people who are going to influence purchases are well trained. What they have currently is a combination of them. Some are good, some are weak.

The second respondent revealed that there exists within Company C an obsession to deliver what is expected of you if you are in sales and marketing. That comes with understanding of what the market needs, in terms of products, and offerings such as

support to key accounts. The company is leveraging on the size of its portfolio; it is difficult for any distributor or customer not to sell some Company C product.

4) Human Resource

When asked about what constituted their capabilities at Company C, Respondent C2 indicated that it was primarily about their skill and knowledge. He added that in a manufacturing environment, it was people who knew what was needed to squeeze out as much inefficiency as possible so that the company could realize the margins.

Company C values people who understand the environment, who have deep insights into benefits for the business. She further indicated that the human resource department has become crucial in terms of their ability to employ well, the people who are insightful and having thorough knowledge of the processes that they are managing.

For that reason, Company C puts a lot of emphasis on the recruitment process. They use targeted selection to attract people who match the particular competences for the job function. The process also involves selection based on personality profile that best meets the job;

“...so that you don’t end up with a square pig in a round hole”.

Respondent C1 explained that Company C was looking for integration of skills, because by definition, government would become their biggest key account. He feared that the skills set of the management team that ran the public sector business did not include some of the knowledge that they had in the public sector. Therefore they have taken the person who used to be the head of key accounts in the public sector and made him the corporate key accounts manager, so that they straddle both the public and private sector. By doing so, they wanted him to look at both the public and private sector and recommend to the organisation how to get the best for Company C from both public and private sector experiences.

When asked how they thought Company C would be affected by the NHI, one respondent explained that they did not know, purely because the NHI was still lacking detail. However he felt that they still needed to prepare themselves; and one way of doing so was to look at where the purchasing of pharmaceuticals was going.

Company C teaches their employees about the principles of key accounts management because they suspect that there would either be a central procurer who would be doing it nationally or at provisional level. The company wants to make sure that their managers understand the principles of key accounts management, negotiation skills, and ability to articulate the value of pharmaceuticals, understanding the components of a pricing and how to communicate it to government.

To achieve that, it would take the skills that they currently have in the public sector and what they are doing in the private sector and put them together. Ultimately they would be able to sell to a future NHI procurer or to a buyer at Shoprite Checkers or for that matter a buyer who is sitting at Dischem and Clicks.

Respondent C1 further explained that because of their legacy in generics, they did very little in training. However because of the merger with GSK, they have been able to up skill their staff, particularly at field forces level and at marketing level, by in sourcing those skills from GSK. Today they are quite confident that their sales force team was not yet there, but was very close to bringing as good as any sales team in the industry. The company is now spending more time and more money training people.

5) Culture

According to Respondent C2 Company C is a very driven and competitive company and that they can't really tolerate non performers. She remarked that because of the culture Company C is very fast paced.

In addition the company is goal orientated;

"The Sales team, Regulatory Affairs and all other divisions are chasing the same goal".

When asked how the company instilled the culture, she explained that,

"...you've got to live the talk. Managers speak the vision and values to their teams, and we promote them".

Furthermore they try to have activities that endorse them and then enforce practice. The respondent remarked that, "People follow the leader, and if managers live those values, their people follow them".

Table 3: Strategic response from pharmaceutical manufacturers

| Strategic Response | Respondents | | | Frequency |
|------------------------------|-------------|-----------|-----------|-----------|
| | Company C | Company A | Company B | |
| Leadership | 2 | 2 | | 4 |
| State relations | 2 | 1 | 2 | 5 |
| Customer service | 2 | | 1 | 3 |
| Resources / capabilities | 2 | 2 | 1 | 5 |
| Culture | 1 | | | 1 |
| Generics | 2 | 2 | 1 | 5 |
| Strategic flexibility | | 2 | 1 | 3 |
| Pricing | | 2 | | 2 |
| Public – private partnership | | 2 | 1 | 3 |
| Product portfolio | | | 2 | 2 |

5.4.2 Private hospitals

Two private hospitals were selected for inclusion in the study. The criterion for their selection was based on judgment of the researcher as well as ease of accessibility to the respondents. Both hospitals, Company F and Company G are located in Johannesburg, within 10 minutes drive from the researcher’s offices. Respondents G2 happened to be in the same MBA class as the researcher which made the interview experience less intimidating.

Collection of data

The interviews were conducted during business hours at the respondents' offices. A voice recorder was used to capture the conversations.

Results

Only the most frequently mentioned themes were presented in the rank and frequency tables, and thus discussed below.

1) Low cost business model

All three respondents believed that the best response to the NHI would be through seeking a low business model that would be aligned to the vision and goal of the NHI, of providing affordable health care to the wider population. Respondent F1 indicated that;

".....the South African health care system demands that we operate at far lower costs than we ever have been; and that it calls for a revisit of the entire business model, and calls for operational efficiencies that you see in the huge manufacturing industries".

He further pointed out that typical low cost models existed in certain other countries like India where they were able to do cardiovascular surgery at double the volumes on international standards, at half the cost and at better quality.

Respondent G1 warned of margin pressure, but saw an opportunity in the potential increase in the size of the health care market. However she cautioned that to remain relevant the private hospitals needed to exercise operational excellence and thereby bring the costs down and benefit through high volumes.

According to respondents from Company G, they have an existing low cost business model that renders health care services to the government at low cost. The Life Esidimeni Health, as it is called, runs semi-independently from Company G hospitals. It provides primary health care services on contract basis to certain rural areas in South Africa. The reason for the success of this business model is because Company G runs Esidimeni project with their own doctors.

Under the normal private hospital regulation, private hospitals are not allowed to employ doctors. Respondent G1 further indicated that,

“.....as a result there is only so much influence we have over clinical pathways and only so much that we can do in terms of managing down the cost effectiveness of care, because we don’t employ the doctors”.

With the Life Esidimeni model, they are allowed to employ doctors and that enables them to have some influence on the pricing structure.

Company G considers an opportunity in leveraging off the Life Esidimeni model to become a relevant player in the NHI space. Both respondents agreed that the success of the NHI would greatly depend on low cost health care system.

2) Operational excellence

All three respondents considered operational excellence to be the very effective strategy for responding to the NHI. Company F has over the years created what they call the “centers of excellence” within the Company F group. According to the only respondent from Company F,

“If you are in a traumatic accident, your life is more likely to be saved if you go to our Milpark Company F hospital or Company F Union hospital; because they are the only two levels 1 trauma accredited hospitals in the country”.

Then they have centers where if for example a baby had drowned you are more likely to get saved at their Garden City Hospital where they use a technique that is not available anywhere else in the country to save the life.

He further pointed out that they had achieved their status through,

“....lot of hard work of putting the right teams, the right leadership, the right disciplines, that can take trauma from every facet of its discipline, and that there was an international accreditation to get to that standard”.



3) Differentiated / innovative services

Differentiation came across all three respondents as a necessary response to the uncertainty that comes along with the NHI. All the respondents believed that innovation through differentiated service models could add to low cost, quality health care that was envisaged by the NHI.

Company G shared an example of innovation in their reimbursement models which they believed would be critical to their success if they were to remain relevant during the era of the NHI. The normal private health reimbursement structure is based on payment of everything material (medicines, swabs, syringes, etc) used by or on the patient and service rendered on their behalf. This includes swabs, syringes, medication, X-rays, and fees for health care providers.

According to the respondents from Company G, they have moved to what they call “alternative investment models” where they are essentially risk sharing with the medical aid schemes. Over time they have developed robust reimbursement models which are based on reliable historical data for various clinical cases and how they have been paid out. These models differ from “fee for service” that is described above where the patient pays for everything from swabs to the food they consume while in the hospital.

This differentiates them from other players and contributes somewhat to reduced hospital costs.

Company F on the other hand has a program called The Company F Way, which is based on provision of caring treatment to patients, such as respect and dignity,

“...like knocking on the door when we walk into your ward and asking if I may come in, and asking to take blood pressure”.

According Respondent F1, when people visit a private hospital, they want to experience the full package. They want to be cured; they expect a competent doctor; they expect to be examined with the best equipment. Furthermore the differentiated service has to be focused on customer satisfaction. The respondent from Company F indicated that,

“We are tentative to what people are looking for”.

4) Skills development and capacity building

When asked about what challenges would be brought about by the NHI to the health care industry, respondents from Company G gave a similar response which indicated the importance of human resource development. They feared the “brain drain” phenomenon which is characterized by emigration of doctors and nurses to countries which offer better salaries and standards of living.

In an attempt to build and broaden the skills base in South Africa, Company G has embarked on a program for training nurses and doctors. They have nursing colleges that have robust and certified training programs to support the clinical aspects of skills development. They also run other programs which focus on the non clinical aspects of human resource development such as management development skills. The company has set aside an amount of R80 million for the training of specialist doctors over 5 years, with no direct obligation to Company G upon completion of the studies.

Company F on the other side has instilled a culture of working in multi disciplinary teams so that their staff doesn't work in isolation where they are the only people who know how to get the job done. In so doing they hope that there would be some level of development and training taking place, but it is always a challenge because,

“...there is so few of them, and if you lose them to a competitor, or age or retirement, it becomes a major loss”.

Table 4: Strategic responses from private hospitals

| Strategic Response | Respondents | | Frequency |
|--------------------------------------|-------------|-----------|-----------|
| | Company F | Company G | |
| Low cost business model | 1 | 2 | 3 |
| Customer focus | 1 | 1 | 2 |
| Business/operational excellence | 1 | 2 | 3 |
| Differentiated / innovative services | 1 | 2 | 3 |
| State relations | | 2 | 2 |
| Skills development/capacity building | | 2 | 2 |

5.4.3 Medical distributors

Company E’s attitude is that the NHI is going to come and that they need to play in it, but also they should have a strong playing field outside of it. What they really mean is that the NHI is not going to be a lucrative space to play in; therefore they need to also get involved in other markets that will still be lucrative.

Company E, through Respondent E1 felt that, anybody who is waiting and saying,

“...only when the NHI comes will I react is naïve and they are going to be behind the curve”.

Company D believes that the NHI will bring success to their business only if they build capacity in terms of people and infrastructure, and thereby benefit through economies of scale from large volumes that the NHI is anticipated to bring along.

Collection of data

The interviews were conducted during business hours at the respondents’ offices. A voice recorder was used to capture the conversations.

Results

Similar to the private hospitals, this section will only report on the top three response strategies which because of their high popularity rate amongst the respondents may be indicative of their value to discussion points that may help in responding to research questions (**Table 5**). The top three responses which were most highly regarded by all respondents were; *the quality of product or service, differentiated or innovative services, low cost business model.*

1) Quality of product or service

When asked about their source of success and how they intended to respond to the NHI, Company E indicated through one of their representatives that,

“...our winning formula has always been our quality; it’s been what has set us apart from our competitors”.

Furthermore she indicated that Company E was the only distributor in South Africa that has ISO 9000 accreditation. They have a validated computer system and a validated cold chain packaging, which are not easily achievable without significant investment in outside consultants and capital infrastructure.

When asked how they have attained such high quality standards, Company E respondents were quick to explain that their first taken on client base which was predominantly multinational pharmaceutical firms was very influential in helping them reach their current high quality standards. Those multinational pharmaceutical firms exposed them to international auditing standards and often their demands were slightly too high for a local firm.

As a result Company E became a market leader in terms of quality of their services and human capabilities. Company E was predominantly servicing reputable multinational pharmaceutical companies, such as Company A and Johnson and Johnson, who were not price sensitive. The high service level requirements of the multinational clients have led Company E to invest huge amounts of money and energy in the quality of their processes and systems.

However they have discovered that over time the level of quality that they are providing sometimes exceeded what their clients required, and as a result their services were too expensive.

According to Respondent E2, they have developed an infrastructure which has a lot of quality into it, and that is why their services “don’t necessarily go cheap”. They have invested a lot in their infrastructure and hence their cost to customer is amongst the highest in the industry. Both respondents indicated that the company needed to change its strategy from “quality at all cost” to “effective quality”, because the former was not sustainable.

Company D also regards quality as a crucial factor in ensuring that they meet the mandate of the NHI of providing quality product and service. However, quality should be such that it does not exceed the customer and regulatory requirements; if it does it may offset the low cost business strategy of the organisation.

Respondent D1 commented that quality is not negotiable; it should always be in the mandate of any business strategy. In the business of healthcare, quality becomes an order qualifier, and if neglected it becomes a liability to the business. Company D believes that it is not just a business objective, but a social responsibility to ensure good quality product to the ill patients.

As a result, part of their new initiative is to build capacity in their training and development department and focus training on best practices in handling medicines. The training focuses on instilling customer service throughout the organisation, aimed at maintaining the integrity of the products through the value chain.

2) Differentiated or innovative services

Both respondents from Company E don’t believe that the NHI will be a lucrative business. For that reason, Company E has taken on new businesses that the company believes to be more lucrative than what the NHI will become. One of their new business ventures involves a Dutch company called Metronic, which is worth billions of rands. Their average product price is R600, and unlike the pharmaceutical business they are not price sensitive.

Company E has historically been a pharmaceutical distribution company, but in terms of their processes, going forward they are looking at becoming a health science company. Furthermore they would like to avoid the negative effects of pharmaceutical regulations such as the Single Exit Price (SEP) which regulates pricing of pharmaceutical products and which is partly responsible for the price sensitivity of the pharmaceutical clients. They are looking at diversifying into Fast Moving Consumer Goods (FMCG), cosmetics for high end customers, veterinary products, and diagnostic devices which are not as highly regulated as the pharmaceutical products in terms of pricing.

In fitting that strategy, the company will structure its processes and people by the channels they are going to be involved in. The pharmaceutical team will be separate from the FMCG, cosmetics, and veterinary teams, due to differences in their handling requirements.

Company D operates in both the wholesale and distribution of pharmaceutical products. There is currently a pending legislation on wholesaler capping fees and the outcome is not out yet. Consequently the pending price pressures have forced the group to grow the business from the wholesale into distribution. They currently have 10 clients and the list is growing, while the wholesale business is slowing down.

Company D believes that the NHI will cause a change in the structure of the market, such that the current state patients will migrate from primary health care clinics and hospitals to independent pharmacies due to high volumes in the numbers. This creates an ideal opportunity for Company D to invest in independent pharmacies and strategically align their pharmacies to provide the service that is aligned to the needs of the NHI.

They also spoke of setting up a formulary for promoting generic medicines so that it is aligned to the NHI formulary, which is expected to be made up mainly of affordable generics medicines. She believes that,

“...there is a need to redefine yourself and align your business to the dynamics of the country”.

Company D also sees a potential in rolling out mobile clinics to reach out to far lying areas of South Africa. Company D respondent remarked that,

“....there is currently no container model for providing medicines to outlying areas”.

Furthermore, Company D is considering expanding the distribution business to Southern African Development Community (SADEC) countries in order to mitigate the potentially adverse effects of the NHI. They have recently opened a distribution centre in Gaborone, and are currently investigating on opening a new distribution centre in Namibia.

In addition, 10% of Company D’s distribution business is in the consumer merchandise, and the organisation intends to keep this business as an alternative should the low cost vision of the NHI prove unbearable to them. The consumer business has higher margins, however the barriers to entry are extremely low, and that causes an over concentration of the market.

3) Low cost business model

According to Respondent E1,

“We sold the Rolls-Royce because the multinationals wanted it. Now the market has become price sensitive, and we have to change”.

One of the changes they plan to introduce to their future strategy is to employ fewer university graduate pharmacists and instead blend the existing group with pharmacist technicians, and thus save costs in salary differences. In that way the company believes it will be operating cost effectively, while maintaining the same levels of quality.

Respondent D2 indicated that the department of health is putting pressure on the industry to reduce the cost of health care. That leaves them little choice but to operate in a way to ensure that they sell more to drive volumes and thus make profits.

4) State relations

Company E has realized the fact that their clients are predominantly multinationals means that they don’t hold large generic based clients. Consequently that put them at a

disadvantage going forward with the NHI, as the generics are expected to play a major role.

Secondly Company E does not have strong relations at the moment with the government sector; and this is something they acknowledge they need to improve on. They seek to develop a team of people that has public sector focus, in order to build relationships with government. The aim of this exercise is to lobby government so that Company E may also be able to identify government tenders and benefit in the process.

Company E seeks to develop its own public sector strategy, including what products or services they need to develop to play in that space. They plan to bring in a channel manager for public sector in order to build relations with the decision makers.

Company E has the most sophisticated supply chain management system in the industry; and are hoping to offer some of their capabilities, such as such as IT services and operational methodology to the public sector in order to make the NHI work, and thus benefit from the exercise.

Company D respondent considered strong relationship building with the government as a strategic response to the NHI. Furthermore she emphasized that the business with the government was driven by tender contracts and that if one wished to play in that space, they needed to enjoy good working relationships with the government.

5) Capacity Building

Company D believes that the winning formula with the NHI will be based on economies of scale. Their reasoning is based on the fact that the NHI is based on provision of affordable health care services to the larger population. Their current business with the state is less than 10%; however they believe that the NHI will bring in more people to the health care services, and that will mean an increase in demand for everything including the medication.

Company D has committed to increase their capacity by building new distribution centers in strategic areas around the country. They currently have two major warehouses in Johannesburg and Cape Town, and are planning to open a new one in Port Elizabeth this

year. They pointed out challenges in getting good talent and infrastructure to operate their facilities, and hence they are putting a lot of emphasis on training staff through their development centre as well as investing in IT infrastructure to enable smooth running of the supply chain.

Table 5: Strategic responses from medical distributors

| Strategic Response | Respondents | | Frequency |
|--------------------------------------|-------------|-----------|-----------|
| | Company E | Company D | |
| Quality of product/service | 2 | 1 | 3 |
| Differentiated / innovative services | 2 | 2 | 4 |
| Business/operational excellence | 2 | 1 | 3 |
| Low cost business model | 2 | | 2 |
| State relations | 2 | 2 | 4 |
| Skills development/capacity building | 1 | 2 | 3 |

Conclusion

The following gives a summary of results, within each of the following clusters:

Pharmaceutical manufacturers:

- Generics
- Leadership
- Resources/capabilities
- State relations

Private hospitals:

- Low cost business model
- Business / operational excellence

Medical distributors:

- Differentiated/innovative service
- Strategic flexibility
- Quality of product/service
- Business/operational excellence
- Skills development/capacity building

Also the following themes were most popular across all clusters:

- State relations
- Skills development/capacity building
- Differentiated/innovative services

Chapter 6 will discuss the findings in chapter 5 in order to try and provide answers to research questions in chapter 3.

6. CHAPTER 6: DISCUSSION OF RESULTS

This chapter discusses the major findings of the study within the context of the research questions defined in chapter 3. The flow of this chapter will be based on attempts to answer research questions by examining the results in chapter 5 against literature review in chapter 2.

6.1 Research question 1: How do firms respond to impending disruptive change?

The aim of research question 1 was to assess the response behavior of firms when faced with impending disruptive change.

The results will be discussed separately for each business cluster and then for the combined group, in order to compare the findings within and across clusters.

As an introduction, **Table 6** shows the most common response strategies within and across clusters, respectively as presented by the results in chapter 5. The results are presented in a frequency table in order to highlight the most frequently used strategies.

Table 6: Response strategies across all clusters

| Strategic Response | Respondents | | | | Frequency |
|------------------------------------------|----------------|------------------|-------------------|----------------------|-----------|
| | Generics firms | Innovative firms | Private Hospitals | Medical Distributors | |
| Quality of product or service | | 1 | | 3 | 4 |
| Differentiated or innovative services | | 1 | 3 | 4 | 8 |
| Business/operational excellence | | | 3 | 3 | 6 |
| Low cost business model and generics | 2 | 4 | 3 | 2 | 10 |
| State relations | 2 | 3 | 2 | 4 | 11 |
| Skills development and capacity building | 2 | 2 | 2 | 3 | 9 |
| Leadership | 2 | 2 | | | 4 |
| Customer service | 2 | | 2 | | 4 |

| | | | | | |
|------------------------------|---|---|--|--|---|
| Culture | 1 | | | | 1 |
| Strategic flexibility | | 3 | | | 3 |
| Pricing | | 3 | | | 3 |
| Public – private partnership | | 3 | | | 3 |
| Product portfolio | | 1 | | | 1 |

6.1.1 Pharmaceutical manufacturers

The results in **Tables 6** show that the most popular response strategies to the NHI as revealed by the respondents are: *low cost business models, state relations, skills development and capability building.*

Low cost business model (generics products)

10 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI by implementing low cost business models such as diversifying to generics products. 5 out of 10 of those respondents represented all respondents in the pharmaceutical firms.

Respondent B1 indicated that their focus was not that of diversifying. He said that,

“Everybody is focusing on NHI, but I think that you need to stay true to who you are as a pharmaceutical business. You need to know who you are and where you are playing with the core of your business and how much drop off there will be because of the NHI”.

He mentioned that their focus was to function lean in a private sector and leverage their resources, and look at innovative ways of engaging on their private sector companies. In other words the company was taking a Strategic Choice to focus on a niche market.

The NHI is associated with low cost health care service, and therefore it is not surprising that 5 out of 6 pharmaceutical respondents indicated during the interviews that there was a need to compete in the generics market as a sensible response to the NHI. According to the NHI Green Paper (2011, p.4), the NHI will *“ensure that all South Africans have access*

to affordable, quality health care services regardless of their socio-economic status". What this means is that there will be more people to service at low costs, which means that firms will compete on low costs and thus rely on economies of scales in order to recoup their input costs.

When Respondent A1 was asked why the innovative drugs could not compete with the generics in terms of price, he answered that in theory there should not be any significant reason, except that the innovative drugs were research based. He elaborated that the reason why they were charging a premium price for innovative drugs was because they had spent a lot of money on research and development, and that there was a need to recover the costs.

Company C is the leading generics company in South Africa, and have thrived in the environment that has been characterized by government interventions in the form of medicines price regulations such as the Single Exit Price (SEP) which imposes a cap on prices of medicines.

It is therefore highly possible that Company C will continue to thrive in the NHI environment as long as they maintain their current low cost business model with the volumes that they currently enjoy.

The interviews with multinational companies (Company A and Company B) indicated that they were either contemplating or had already entered the generics market. Company A has begun to market their generics products via their generics subsidiary Pharmacia. The company has positioned Pharmacia as the "original" generics Company due to their close association with their parent Company A.

Company A claims that the raw materials and the expertise that go into making Pharmacia generics are the same as Company A's. They have set up a project team that is looking at acquiring more products that will compete in the generics space, so that Company A may also become relevant during the NHI. Company A is therefore on course to expanding their product portfolio to align itself to the NHI.

According to Respondent B2, they have realized that in order to remain relevant in the NHI, they have to compete vigorously in the public sector. One of the ways in which they are approaching the challenge of the NHI is by registering a local company using a similar



name. Their intention is to better their chances with the NHI by forming a local footprint and thereby strengthening their relations with the government.

Their respondent has indicated during the interview that they have less than 5% of their total business with the state, and that by launching a local company they aim to grow their market share in the generics business, and thereby position themselves to benefit from the NHI.

Company C appears to be meeting all the criteria that are considered by other respondents to be the winning formula in the NHI environment. They have got a strong portfolio of generic drugs that are aligned to the national drug formulary, and the drugs are available at affordable prices. Also, they manufacture locally and thus benefit from various government initiatives that are aimed at incentivising local manufacturers, such as the preferential procurement policy.

State relations

The total of 11 out of 13 respondents (**Table 6**) indicated that they would respond to the NHI by forming strong relations with the state. 5 out of 11 respondents came from all respondents in the pharmaceutical firms.

The state is the custodian of the NHI, and consequently it will play a major role in defining the rules of the competition around the NHI. The basic rule in business is that companies must know their key customers very well in order to be competitive.

Unlike other companies, Company C has put a lot of effort in building strong relations with the regulators. The results in chapter 5 mention that Company C has a senior executive whom they refer to as their “lobbyist” because of his influence in the state. Their respondent went further by explaining that Company C works closely with the government to try and assist where there are policies being formulated; and that gives them the opportunity to exert the “correct” influence.

Company C uses their state relations advantage to scan the environment and thereby gain insight into what the government expects from the industry. They then use that information to gain a competitive advantage. According to Respondent B2, Company C has demonstrated that if you want to win, you need to be aligned to what your biggest customer requires. In this instance the government is the customer, and they are calling

for local manufacturing and affordable medicines, and that is exactly what Company C is doing.

It is also important to note that Company C hasn't offered any new products in terms of innovation; however their innovations were coming from processes, value chain, business model, areas in which the multinationals have not been good at.

Company A appeared concerned that they might be lacking strong relations with the government at a strategic level. Also they felt that they needed the right people at that level, to enable the company to understand where government is going and how the regulations such as the NHI would pen out.

Company B emphasised that there was a need to partner with the state. They blamed the perception that the state was just the enforcer of regulations and laws and not so much a strategic partner with who firms could co-create the future.

He added that Company B had taken some tiny steps towards building relations with the state such as by partnering with the Department of Health and various state hospitals in setting up education projects aimed at training patients in things like breast cancer. They have also taken the stance to price their products as low as they could in the state sector. All these initiatives are mounting up to strong partnership with the state that may position the company well in the NHI environment.

Skills and capabilities

The total of 9 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI by developing skills/capabilities/competences that are aligned to the NHI. 4 out of 9 respondents came from respondents in the pharmaceutical firms.

Current state key account managers compete over state tenders. Their role is mainly focused on completion of tender documents and following up to ensure that the contractual obligations are met. All 4 respondents envisage that the current role of state key account manager will change and become more visible in the NHI environment since the government will become the major stakeholder.

Company C indicated that they were concerned that their state key account personnel were not geared up for the challenges posed by the NHI. According to Respondent C1, the

current business environment has made it necessary for the company to put their most competent key account managers to private sector accounts, since the requirements from the public sector were less demanding.

The company is now embarking on an exercise of up skilling their state key account personnel so that they possess the same competences as their private sector counterparts. The ultimate goal of the company is to put the most capable manager in front of the client irrespective of the status of the client.

Company C has also demonstrated that the abundance of resource alone is not sufficient to offer them a competitive advantage. It is only when their people (some of whom have doctorate qualifications), facilities (FDA and TGA approved), product portfolio (generics), and leadership (managers), are aligned to the environmental context that they will render the firm a competitive advantage.

Company A indicated that they benefit from being part of a global player. They have plenty of resources throughout their global community where they can tap from, and learn what has been experienced in other parts of the world. They benefit from information sharing and thus they will go up to the global team and pull out what has been learnt from various parts of the world, to better prepare themselves for the NHI.

6.1.2 Private hospitals

The results in Tables 6 show that private hospitals respond to NHI by means of low cost business models, operational excellence, and innovative products and services.

Low cost business model

The total of 10 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI by implementing low cost business models such as through partnerships with the government. 3 out of 10 respondents came from all respondents in the private hospitals.

Through Life Esidimeni, Company G is able to provide quality health care at affordable prices. What makes Life Esidimeni unique is that Company G employs its own doctors, unlike the policy in private hospitals which prohibits them from employing their own doctors. In this way Company G through Life Esidimeni, can exploit their internal

capabilities in terms of doctor expertise, quality of infrastructure, and management skills, to provide affordable quality health care services consistent with the NHI.

Through Life Esidimeni, Company G is able to crystallize their relationship with the government and in the process gain more clarity in terms of government expectations. One Company G respondent puts it clear that the winning formula is about understanding the customer and doing everything within your power to ensure that the underlying needs of the customer are being met.

The respondent from Company F indicated that the South African health care system demands that the industry operate at far lower costs than ever before; and that it calls for a revisit of the entire business model, and calls for operational efficiencies that are seen in the huge manufacturing industries.

He gave an example of a typical low cost model that was being applied in India whereby various medical procedures, such as cardiovascular surgery were performed at double the volumes on international standards, at half the cost and at better quality.

Innovation through differentiated services

The total of 8 out of 13 respondents overall (Table 6) indicated that they would respond to NHI through innovative products and services. 3 out of the 8 respondents came from all respondents in the private hospitals.

All three respondents believed that innovation through differentiated service models would contribute to low cost health care service as prescribed in the NHI Green Paper (2011).

Company G shared an example of how they had innovated their reimbursement models which they believed were critical to their success if they were to remain relevant during the NHI. The normal private health reimbursement structure is based on payment of everything used by or on the patient and service rendered on their behalf. This includes swabs, syringes, medication, X-rays, and fees for health care providers.

According to the respondents from Company G, they have moved to what they call “alternative investment models” where they are essentially risk sharing with the medical aid schemes. Over time they have developed robust reimbursement models which are based on reliable historical data for various clinical cases and how they have been paid

out. These models differ from “fee for service” that is described above where the patient pays for everything from swabs to the food they consume while in the hospital.

This differentiates them from other players and contributes somewhat to reduced hospital costs.

Company F has also differentiated them through a program called The Company F Way, which is based on providing a caring environment to patients, such as respect and dignity like, as Respondent F1 puts it, “knocking on the door when we walk into your ward and asking if I may come in, and asking to take blood pressure”.

Company F believes that when people visit a private hospital, they want to experience the full package. Thus they differentiate themselves through provision of a service that is focused on customer satisfaction. For example they understand that patients come to private hospital to be treated well by competent doctors with the best equipment, and that is what they put forward as their service standards.

Operational Excellence

The total of 6 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI through various operational excellence initiatives. 3 out of 6 respondents came from all respondents in the private hospitals.

Company F has innovated over the years into creating what they call “centres of excellence” within Company F. Company F respondent gave few examples of these “centres of excellence” such as the traumatic accident centre at Milpark hospital or Union hospital; and the Garden City Hospital, where they use special techniques that are not available anywhere else in the country to save lives.

Company F also shared that they had achieved their status through a concerted effort of putting the right teams, the right leadership, the right disciplines “that can take trauma from every facet of its discipline”, and that there was an international accreditation to get to that standard.



6.1.3 Medical distributors

The results in Tables 6 show that medical distributors respond to NHI by means of innovative services, state relations, quality of product or service, and skills/capabilities building.

Innovative services

The total of 8 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI through innovated products and services. 4 out of the 8 respondents came from respondents in medical distribution.

Company E doesn't believe that the NHI will be a lucrative business, and for that reason they intend to diversify into other businesses, such as the one described in chapter 5 that involves a Dutch company called Metronic, which is worth billions of rands.

They are also looking at becoming a health science company as supposed to a hard core pharmaceutical business, and in that way they may be able to avoid the stringent regulations such as the Single Exit Price (SEP).

They are also looking at diversifying into Fast Moving Consumer Goods (FMCG) such as cosmetics for high end customers; veterinary products; and diagnostic devices which are not as highly regulated as the pharmaceutical products in terms of pricing.

In fitting this strategy, the company will restructure its processes and people by the channels they are going to be involved in. The pharmaceutical team will be separate from the FMCG, cosmetics, and veterinary teams, due to differences in their respective regulations.

Company D also sees a potential in diversifying into mobile clinics to reach out to far lying areas of the country. They are also considering expanding the distribution business to the South African Development Community (SADEC) countries in order to mitigate the potentially adverse effects of the NHI. As a start, they have recently opened a distribution centre in Gaborone Botswana and are currently investigating in opening a new distribution centre in Namibia.

State relations

The total of 11 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI by strengthening their relations with the state. 3 out of the 11 respondents came from all respondents in medical distribution.

Company E currently handles predominantly multinational clients who market innovative drugs. That immediately puts them at a disadvantage going forward with the NHI, as the generics are expected to play a major role.

The other thing is that they do not have strong relations with the state at the moment, and this is something they acknowledge they need to improve on. They seek to develop a team of people that has public sector focus, in order to build relations with government. The aim of this exercise is to lobby government so that Company E may also be able to identify government tenders and benefit in the process.

They are busy formulating their own public sector strategy, including what products or services they need to develop to play in that space. They plan to bring in a channel manager for public sector in order to build relations with the regulators.

They are also hoping to offer some of their supply chain management capabilities, such as IT services and operational methodology, to the public sector in order to make the NHI work, and thus benefit from the exercise.

Quality of product and/or service

The total of 4 out of 13 respondents overall (**Table 6**) indicated that they would respond to NHI by providing quality products and services that are aligned to the NHI. 3 out of the 4 respondents came from all respondents in medical distribution.

In the past Company E emphasised quality above everything else. Their motto was “quality at all cost”, but recently they have realized that is not sustainable. Respondents E2 explained that they have discovered that over time the level of quality that they were providing sometimes exceeded what their clients required, and as a result their services became too expensive.

The company now feels a need to change its strategy from “quality at all cost” to “effective quality”, because the former is not sustainable. They are considering putting new measures for providing basic quality service to clients whilst maintaining low cost business operation.

One of the changes they plan to introduce to their future strategy is to employ fewer university graduate pharmacists and blend the existing group of pharmacists with pharmacist technicians, and thus save costs in salary differences.

Company D believes that quality of products and services is not negotiable, and that it should always be in the mandate of any business strategy.

In keeping with this vision, part of their new initiative is to build capacity in training and development by focusing training on best practices in handling medicines. The training focuses on instilling customer service throughout the organisation, aimed at maintaining the integrity of the products through the value chain.

Summary

According to the literature, firms may respond to disruptive change by creating disruptive innovations, through strategic choice or by developing new capabilities and competences that are aligned to the new competitive environment.

Disruptive innovation

By disruptive innovation it is implied that firms may compete by developing new innovations that render their products or services difficult for others to copy. According to Danneels (2002), disruptive innovation supports the view that firms need to continuously reinvent themselves in order to remain viable in the changing environment.

Hwang & Christensen (2008) argued that disruptive innovation had brought affordability and convenience to customers in other industries, except in the health care where the costs of service remained high. They blame this to a lack of proper business-model innovation in this industry.

Strategic choice

According to Child (1997) strategic choice is the way in which leaders shape conditions and processes within or outside the organisation in order to effect a competitive advantage over its competitors. Dawley et al, (2002) added that the interaction between strategic choice and environmental circumstance determines firm success.

Resource based view

According to Newbert (2007) the resource based model suggests that the exploitation of the firm's unique resources and capabilities contributes to its competitive advantage, and its ability to earn above average returns. Ireland et al (2011) went further to suggest that resources are valuable when they are used to exploit the opportunities and neutralise the threats in the firm's environment.

According to Sirmon et al (2007), the right capabilities can be a source of value creation, which occurs when a firm exceeds its competitors' ability to provide solutions to customer while improving its profit margins.

Teece et al (1997) extended the resource based view to dynamic markets. Eienhardt & Martin (2000, p.1106), described dynamic capabilities as "consisting of specific strategic and organisational processes that create value for firms within dynamic markets by manipulating resources into new value-creating strategies".

Implications for research

Table 7: Comparison of research findings against literature

| Strategic responses | Majority Firm Response (descending order by number of respondents) | Literature | Discussion |
|--------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------|------------|
| State relations | 11 | Unrelated to literature review | A |
| Skills development/capacity building | 9 | Resource based view | B |
| Differentiated / innovative services | 8 | Resources based view Disruptive innovations Strategic choice | C |
| Business/operational excellence | 6 | Resource based view | D |
| Low cost business model | 5 | Disruptive innovations | E |

Discussion

A: State relations

It is not clear in the literature how the state relations relate to disruptive change. Perhaps this talks to the understanding of what the customer wants and hence the majority of the respondents felt it was crucial that they strengthen their relations with the main stakeholder in the NHI, which is the government.

B: Skills development/capacity building

The above response is consistent with the resource based view theory. Its relevance is based on the fact that the research firms indicated that they anticipated a change in their competitive environment due to NHI in the form of increased volumes of customers and pressure on prices. For that reason they felt a need for sourcing new skills or

reconfiguring the existing ones into capabilities that would become valuable in the NHI market space.

Almost all respondents indicated that they would up skill their state key account areas. As a result the two innovative pharmaceutical companies have decided to enter the generics business space and thus they would require new skills and competences in the low cost business environment of generics.

Furthermore the literature also eludes that dynamic capabilities create value for firms within dynamic markets (Eienhardt & Martin, 2000)

C: Differentiated / innovative services

The above response by firms is consistent with the following three bodies of knowledge; resources based view, disruptive innovations, and strategic choice.

Company E and the two innovative medicines companies indicated that they would diversify their businesses into health science products such as the veterinary products and creams; and generics products respectively.

However Respondent B1 was quick to explain that they would not be side tracked by the NHI. They would stick to their initial strategy that was focus on market. This may be considered a strategic choice, though it has been observed that the source of their choice was a direct response to the NHI.

It is also important to note that differentiated services or new innovations still supports the resource based view that new capabilities and competences will need to be developed in alignment with the NHI.

6.2 Research question 2: What are the organizational challenges associated with confronting disruption?

This research question seeks to assess the organizational challenges that have an influence on firms' ability to respond to disruptive change effectively.

The respondents in chapter 5 indicated the following 6 challenges to be associated with their ability to confronting the NHI: (**Table 8**)

Table 8: Challenges to firms' ability to respond to NHI effectively

| Organisational challenges | Majority Firm Response (descending order by number of respondents) | Literature | Discussion |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------|------------|
| Government policies that restrict competition | 7 | Unexplained by literature review | A |
| Pricing structure of drugs and other health care services too high to meet NHI criteria | 4 | Christensen's disruptive innovation theory | B |
| Lack of expertise in working with the public sector | 3 | Resource based view | C |
| Portfolio of products that are not aligned to NHI | 3 | Strategic misalignment | D |
| Reporting structure that renders the firm strategically inflexible | 2 | Resource dependency theory Strategic misalignment | E |
| Too much investment in quality of service and infrastructure | 1 | Christensen's disruptive innovation theory | F |

A. Government policies that restrict competition

The government policies that are associated with Broad Based Black Economic Empowerment (BBBEE) are proving a threat to survival of multinational businesses in South Africa. The biggest share of state tenders fall into the hands of local companies. Company C is a model example of a thriving business partly through various government policies which seek to incentivise the local business. As the state owned entity, NHI will apply the same BBBEE policies and thus will remain a threat to multinational business, unless they partner with local business or simply register new local subsidiaries.

According to Respondent B1,

“The local companies are better positioned because of their BBBEE position and the ownership piece. Multinationals in general will be disadvantaged because the rating system will play a key role in the NHI tender and procurement system”.

Private hospitals on the other hand suffer from the policy which disallows them from employing their own doctors. This becomes an obstacle to innovative cost models that would bring about affordable health care fees as in other countries like India.

B. Pricing structure of drugs and other health care services

Multinational companies like Company A and Company B indicated that because they market innovative drugs, they were required to recuperate their research and development costs by pricing their products higher. As a result, innovative drugs cost more than the generic drugs and that poses a threat in the NHI environment which according to the NHI Green Paper (2011) will put pressure on prices.

It was interesting to note that when Respondent A1 was asked if innovative drugs could not be sold at cheaper prices, that he replied that theoretically they could, but in practice because of the nature of the pricing model used by the company, innovative drugs were priced higher than generic drugs for the reason explained above.

In contradiction, the respondent from Company B has indicated that they had taken a decision that they would price their products as low as they could to the state, and that they had a few examples to prove it.

Private hospitals like Company F and Company G have realised that the high cost of health care service will pose a challenge in the NHI environment which is calling for cost effective fees. Both hospitals are trying out a number of initiatives in their attempts to counter this challenge. Company G is enjoying a successful partnership with the government through their Life Esidimeni project which is contracted to providing health care service to the state at affordable fees.

Company G has also initiated an innovative reimbursement model that differs from the popular “fee for service” model that is used by most private hospitals. This is enabling the firm to charge slightly lower service fees to their customers.

C. Lack of expertise

Company C has identified a skills gap in their state key accounts area, which they believe will present a challenge in them being able to take full advantage of the opportunities that are being presented by the impending NHI. They have indicated that they would embark

on extensive training to ensure that their sales representatives and key account managers gain the necessary experience to service the public sector to the best of their abilities.

Company A raised a concern that they may also be lacking some of the competences that are critical in enabling them to compete in the NHI environment. The company is currently predominantly servicing the private market, with 65% of their business coming from that market. As a result they have not invested enough in the state key account area, and currently the company has only one person in this role. They fear that the NHI has a potential to shift the current business structure, resulting in the state becoming the key account, and for that reason they see a need to build the necessary human capacity with the right skills in this area.

D. Portfolio of products

The NHI will aim to achieve the goals of the nation health policy which seeks to increase people access to health care in South Africa. It is expected that the strategic disease conditions such as HIV/AIDS, communicable disease, etc, will determine the NHI drug formulary list. Also it is expected that the NHI will favour cheaper drugs ahead of the expensive innovative drugs.

Firms with a broad portfolio of drugs that are affordable are expected to benefit the most. Chapter 5 indicated that the two innovative drug companies, Company B and Company A had moved into the generics space, and the possible reason for this move is to be able to enter the low cost drug market which is strategically positioned for the NHI. Company A is marketing generics through their generics company called Pharmacia, and Company B has recently registered a generics subsidiary for the same reason.

E. Reporting structure that renders the firm strategically inflexible

Respondent B2 was very clear to explain that he was not confident that his company was strategically flexible to challenges or opportunities that would be presented by the NHI. He pointed his reason to the inflexible reporting structure at Company B.

He explained that as a subsidiary to an overseas multinational company, their priorities dependent on head office list of priorities. He explained that if the NHI was going to be enacted tomorrow, the speed at which Company B would respond to it would very much depend on the appetite of head office to NHI.

In other words the speed and manner in which they would respond to an NHI is not entirely up to local leadership, but rests a lot on its priority status at head office. This talks to misalignment of priorities between head office and the South African subsidiary.

F. Quality of products and services exceeding basic customer needs

Company E respondents explained that their clients were predominantly multinational companies who were not price sensitive, but who required high quality service level. Company E was therefore forced to invest a lot of money into state of art facilities, skilled staff, and world class infrastructure.

However their biggest mistake was to continue to invest in providing high quality service, which eventually exceeded what their clients required. Furthermore their customers became price sensitive in recent years due to various forms of world financial crisis. As result they have started to lose some of those customers due to high service fees.

It is only recently that Company E has realized that their quality levels were just too high and that they were exceeding the requirements of the customers. The company has embarked on a reverse strategy to lower the investment in quality by employing less qualified pharmacists, and investing less in infrastructure. They also consider diversifying the business into products that are under regulated in terms of quality such as non pharmaceutical health care products and veterinary products.

Summary

The NHI is seen as a disruptor in the eyes of the respondents. As a result it is expected to cause a misalignment in the present resources, capabilities, competences, and priorities of competing firms.

The above listed organizational challenges highlight the perceived magnitude of disruption that is anticipated upon the introduction of the NHI. Most challenges relate to misalignment to the new context of the NHI. For examples, the lack of the relevant state key account expertise, product portfolio that is not geared to service the NHI because it is focused in different disease conditions not related to the NHI, prices of health care services in private hospitals that are too high to be accessed by the poor majority.

The research findings also pointed out problems that lie within the strategic management practices, such as disempowering organisational structure as explained by Company A and Company B that because of their reporting arrangement to head office overseas, they may not always be able to respond readily to disruptive change, such as the NHI. This may also be explained in terms of the resource dependency theory which according to Sandstrom, et al (2009) suggests that the firm's freedom of action is limited to satisfying the needs of

those who provide the resources it needs in order to survive, which in this case is the company head office overseas.

Company E’s challenge of high quality service that has exceeded customer requirements and hence its premium price, supports Christensen’s theory of disruptive innovation. It is relieving to hear from the Company E respondents that they have realized that their high price for high quality was beginning to render them uncompetitive.

The final point is on restrictive government policies which make it challenging for certain businesses to compete effectively. It is also important to note that the section on literature review does not shed light on matters relating to government policies in strategic response situations.

Table 9: Strategic responses identified during interviews of all clusters

| Strategic responses | Respondents | | | | Frequency |
|--------------------------------------|------------------|------------|-------------------|----------------------|-----------|
| | Generics Company | Innovative | Private Hospitals | Medical Distributors | |
| Quality of product/service | | 1 | | 3 | 4 |
| Differentiated / innovative services | | 1 | 3 | 4 | 8 |
| Business/operational excellence | | | 3 | 3 | 6 |
| Low cost business model | | | 3 | 2 | 5 |
| State relations | 2 | 3 | 2 | 4 | 11 |
| Skills development/capacity building | 2 | 2 | 2 | 3 | 9 |
| Leadership | 2 | 2 | | | 4 |
| Customer service | 2 | | 2 | | 4 |
| Culture | 1 | | | | 1 |
| Generics | 2 | 3 | | | 5 |
| Strategic flexibility | | 3 | | | 3 |
| Pricing | | 3 | | | 3 |
| Public – private partnership | | 3 | | | 3 |
| Product portfolio | | 1 | | | 1 |

6.3 Research question 3: What role does a firm's resources, capabilities and competencies play in influencing its response to a disruptive change?

A firm's unique resources and capabilities are the critical link to strategic competitiveness (Ireland, et al, 2011). The nature and type of resources and capabilities needed in uncertain environment like the NHI may differ considerably from the ones needed for survival in a normal environment.

This section seeks to establish the role that is played by the firm's unique resources, capabilities and competences, in influencing their response to the NHI.

Chapter 5 revealed the following unique resources/capabilities/competences for each of the firms that were interviewed:

- Company C – state relations, leadership, generics, operational excellence
- Company A – product portfolio, global firm
- Company B – decision making
- Uti – quality systems, infrastructure
- Company F – operational excellence
- Company G – Life Esidimeni

Company C

Company C is the leading generics pharmaceutical company in South Africa. They have been awarded the biggest slice of the Antiretroviral drugs (ARV) tender by the government, and their performance record indicates that they have been meeting the delivery demands of the tender ever since it was first made available in South Africa.

Company C pride themselves with great resources and capabilities in terms of manufacturing facilities, employees, state relations, leadership, and great generic product

portfolio. These give them a perfect fit to South African health care environment and the same can be expected with the NHI.

The company produces affordable generics drugs locally through their Food and Drug Administration (FDA)/Therapeutic Goods Administration (TGA)/ISO9000 accredited plant in Port Elizabeth. They employ highly qualified staff, and are lead by a highly capable Group CEO Stephen Saad. They also have the most influential state relations executive in the industry who commands a great respect from the authorities.

Manufacturing facilities

Company C has state of the art manufacturing facilities which are FDA, TGA, and ISO9000 accredited. The plant is run by highly qualified scientists and is able to produce high volumes in order to meet the state ARV demands.

Product portfolio

Their broad generics portfolio gives them a competitive edge over innovative drug manufacturers when it comes to government tenders. Their 70% share of the total government ARV tender has elevated their image in the industry by proving themselves capable of meeting this contractual obligation year on year. This may be the indication that they would equally be able to meet the manufacturing requirements of the NHI as demonstrated in their ability of meeting the obligations of the current tender.

Leadership

Company C has been very successful under their current Group CEO and shareholder Stephen Saad, who is considered by his staff as being “entrepreneurial par excellence”. It is claimed by one of Company C respondents that “he has a nose for opportunity”, and in the process has positioned the company to benefit from the ARV tender business by committing to building their current manufacturing plant in Port Elizabeth to fulfill the requirements of the state, and actually succeeding in meeting those requirements.

Within Company C is there another executive director who is regarded as being most “connected” to government such that his colleagues regard him as their lobbyist, because of his influence in government.



These resources, capabilities, and competences make Company C walk tall amongst their competitors. Through their lobbyist they are able to somewhat influence the outcome of certain government policies and thereby gain insight into what is expected by government from the industry. This enables them to reconfigure their resources and capabilities in line with the new policies. The same is expected to be the case with the NHI.

Company A

Product portfolio

Company A is the leading global biopharmaceutical company with its head quarters in the United States of America. The company boasts a wide portfolio of innovative drugs, which makes it a force to be reckoned in the private health care sector. The company has recently launched its generics portfolio under a Pharmacia brand, which is wholly owned by Company A.

Global team member

Company A is a member of a large global team and as such they are able to tap into their international expertise whenever a need arise. In so doing they are able to exert a competitive advantage over their competitors.

Their wealth of resources and capabilities in terms of capital, international association, product portfolio, and brand reputation makes Company A well positioned to participate successfully in the NHI.

Company B

Reporting structure

Company B raised a concern about the speed with which decisions making flows within the company. The company is also multinational with head quarters overseas. The company is “risk averse” and this is probably due to its current reporting structure which is very centralized. As a result the decision making process is slow because a local decision needs to be approved by regional head office and sometimes also by main head office, depending on the level of risk associated with that decision. Consequently there may be delays due to conflicting priorities at head office level, and by the time that decision is

made it is either too late or the goal post has shifted or circumstances have changed which requires the company to present a new case.

Other capabilities

Company B consider their source of success to be based on good quality products, which launch well in the market that is ready for them at a good price. The company has been able to commercialise novel products at the right time. Coupled with this they have good leadership that is focused on execution, and hence “alignment at the right place at the right time”.

Company E

Quality of product or service

Company E indicated that their source of success has always been the quality of their services, which has set them apart from their competitors. Company E was the first medical distributor in South Africa to have ISO 9000 accreditation. They also have a validated computer system and a validated cold chain packaging, which are not easily achievable without significant investment in outside consultants and capital infrastructure.

As a result Company E has become a market leader in terms of quality of their services and human capabilities, due to the type of clients that they served such as Company A and Johnson and Johnson. However they have discovered that over time the level of quality that they are providing sometimes exceeded what their clients required, and as a result their services were too expensive.

This may prove a problematic if they wish to participate in the NHI which is expected to exert low prices of services rendered by its customers. It is known that government consider low prices ahead of quality of services when considering awarding its tenders.

Company G

Human resource

Through Life Esidimeni, Company G runs semi-independent health care services on contract basis to certain rural areas in South Africa. The success of this business model is because Company G runs Esidimeni project with their doctors.

This is contrary from normal private hospital regulation which does not allow hospitals to employ doctors. The Esidimeni model gives Company G a significant influence managing down the cost effectiveness of care, and thus gives them some influence on the pricing structure.

Summary

The resource based view is the relevant theory in explaining the role of the above factors in influencing the firm's response to disruptive change. According to Danneels (2002), projects lacking alignment with the four dimensions of a firm's core capability (employee knowledge and skills, technical systems, administrative systems, values and norms) were inhibited. In other words in order for the firms to succeed, they have to reconfigure their capabilities to new projects.

The above listed capabilities and competences, may contribute favourable or unfavourable to the optimal response to NHI depending on them being properly configured to the needs of the NHI. For instance Company A and Company B expressed the need to develop competences around their state key account department and thereby align those competences to the NHI environment.

7. CHAPTER 7: CONCLUSION

7.1 Introduction

The aim of this research was to understand the response of existing firms whose existence was threatened due to impending disruptive change caused by the NHI. The study focussed on three business clusters within the health care industry; pharmaceutical manufacturers, medical distributors, and private hospitals.

The research assessed the nature of the change introduced by the NHI, and compared and contrasted the intended strategic responses across the 3 categories of affected businesses. Finally the research assessed the anticipated organizational challenges associated with confronting the disruption caused by the NHI.

The three academic theories (resource based view, disruptive innovation, and strategic choice) were used to try and attain these objectives. The findings were not surprising (as shown below in **Table 10**), except that the most popular strategic response across all three business categories was state relations, which was not clearly explained by any of the three academic theories that were used in the study, and this is the basis for future research.

Table 10: Summary of research findings

| Strategic Response | |
|---------------------------------------------|-----------------------------------------|
| Literature (chapter 2) | Research Findings |
| Differentiated innovative products/services | Consistent with the theory |
| Low cost business model | Consistent with the theory |
| Skills development/capacity building | Consistent with the theory |
| State relations | Could not be explained by theory |

7.2 Observations

The NHI has not yet been implemented in South Africa. The pilot projects have been running since around April 2012. All respondents believe that it will take many more years before it is fully implemented. The responses from firms indicate that the NHI policy is still

unclear; furthermore some of the firms do not believe it will become a reality. In the same breath, it was equally amazing to see how much work had gone into preparations for the NHI by other firms.

All participants agreed that the NHI was a good initiative; however it still lacked clarity of implementation. They also seemed concerned that the government still lacked the necessary resources and capabilities in terms of the infrastructure and human capacity needed to manage it.

The health care industry has become increasingly unstable in recent years, particularly in the pharmaceutical sector. The following regulations are just but few examples of government interventions in recent years. The implementation of Single Exit Price (SEP), by the former Minister of Health, Manto Msimang, saw an increased pressure on pricing of medicines. Under the SEP all pharmaceutical firms had to justify their prices by obtaining authorisation from the Department of Health for each of registered product. That was followed by other regulations that placed a lot of emphasis on local manufacturing; as a result the ARV tender was awarded almost entirely to the local companies like Company C and Adcock Ingram. Most recently the Broad Based Black Economic Empowerment (BBBEE) policies such as the preferential procurement mean that the awarding of government is based on BBBEE ratings. This just gives a brief picture of the environment in which the health care business operates.

Nature of change introduced by NHI

It is envisaged that the current health care service structure whereby only about 8 million South Africans have access to quality health care through private medical aids would change drastically. First the NHI Green Paper (2011) promises affordable quality health care. Secondly it advocates increased accessibility to health care, especially to the marginalize citizens of this country. The interesting question to ask is; (1) Is the public health care system geared up to make this initiative succeed, considering their current poor performance due to lack of infrastructure and competent leadership; (2) Is the private sector ready to compete whilst at the same time still providing quality health care at affordable prices?

This is therefore the sort of disruption that this research is talking about; disruption in the current market structure, such that the private hospitals may be forced to compete with the state for patients; innovative pharmaceutical companies may need to diversify into generics in order to remain competitive; and medical distributors may need to go into business with the new customer in the form of the state.

The disruption caused by the NHI means that the affected firms need to reconsider their current strategies in order to remain aligned to their competitive environment.

It is also noted that the affected firms have cautioned that the impending NHI policy was still vague, and believed that it would bring instability to the industry, especially in terms of price pressure, hence their intended response in low cost business models. They also feared that the government may be tempted to want to source from elsewhere cheaper such as India and China, if the local industry did not meet the NHI mandate of low cost drugs and other health care services.

It was therefore very surprising to notice that almost all the firms that were interviewed indicated that they were either in the process of putting in place some form of reactive strategies or they had already implemented measures that were intended to lessen their exposure to the potential adverse impact of the NHI.

Response strategy of existing firms

The research revealed that the most popular response strategy that was shown by all firms was through their intention to strengthen their relations with the state. They believe that as the custodian of the NHI, the state would become a crucial focal point in enabling them to better understand NHI and thus be able to influence the regulations. Thus by strengthening the state relations, firms seek to consolidate their strategic alignment to the government as the future key stakeholder in their business space. The other reason may simply be related to firms' attempts in seeking preferential treatment from the government, which is a common feature in most developing countries like South Africa. It is well understood that good "connections" with the state normally results in preferential treatment in terms of awarding of state contracts.

The other three major response strategies that came up in the results did not come as a surprise, because they were consistent with the theory base in chapter 2. They are low cost business strategy and innovative products or services, as well as development of new capabilities and competences; based on disruptive innovation and resource based view theories respectively.

The NHI promises to put pressure on prices and thus it makes sense for firms to respond in ways that would ensure cost containment in the form of the intended low cost business models. As a result, the innovative pharmaceutical firms found it sensible to diversify their businesses into generics which come highly recommended in the context of the NHI.

The need for diversification means that individual firms will need to build new capabilities or reconfigure the existing ones in alignment to the NHI. In other words, the firms that would need to go into generics business would require new sets of capabilities to trade in that space due to differences in processes and systems compared to their current innovative pharmaceutical business. Company A and Company B will need to up skill their employees and re-bundle their value offerings to align to them to generics market.

Company E responded by suggesting that the low cost business model was the way of “rectifying” their past mistakes whereby the firm operated on principle of “quality at all cost”. They changed their operating strategy to “effective quality”, because the former was expensive and was not going to be sustainable in the NHI.

Organisational challenges associated with confronting disruption

It was important to try and identify the kind of organisational challenges that posed a threat to firms’ ability to respond to NHI effectively. The results indicated that the government policies, pricing structure of drugs and other health care services, and the lack of expertise in doing business with the public sector were the major areas of concern.

Amongst the government policies, SEP and BBBEE were the most concerning as they related to price pressure of medicines and preferential procurement measures, respectively.

The low pricing of drugs and other health care services means that firms have to rely on economies of scale in order to remain competitive.

The last factor on lack of expertise in doing business with the public sector was raised by the private hospitals and medical distributors. Their current business doesn't have strong linkages with the public sector and as a result they fear that they may be exposed in this area if they are to compete and succeed in the NHI.

7.3 Recommendations

- **Government**

The government is the custodian of the NHI, however it needs to realise that its success largely depends on optimal contribution by various stakeholders. Therefore the policy needs to consider the survival of their businesses too. The policy is still unclear, but one thing that is certain is that the NHI will require different competences to what the state currently has, in terms of resources, infrastructure and human capital. Leadership will be very critical and a close collaboration with the stakeholders in terms of expertise in supply chain and information telecommunication (IT), etc will be critical.

- **Pharmaceutical firms**

Generics products may be a short term strategy to the NHI. The risk in low cost products is low quality and a need for critical mass to achieve the economies of scale. If that fails, the whole strategy backfires, and the firms cease to exist.

However the long term solution is possibly a strategy that is focussed on innovative business models such as lean processes and systems throughout the value chain.

- **Private hospitals**

Private hospitals have got the capabilities that are geared to providing quality health care service. Their low cost business models such as Life Esidimeni through collaboration with the state should be their main response focus going into the NHI. It doesn't only allow them to hire their own doctors, but also presents them the opportunity to assist with the up skilling of the public sector through a strategic partnership.

- **Medical distributors**

Company E is spot on when they say that they have realised that their value proposition in terms of quality of services rendered to their customers has exceeded their basic requirement. The NHI has stated clearly that their service level agreement is affordable quality service and through innovative low cost business models, this may be achieved.

7.4 Recommendations for future research

Only a small section of the health care industry was used in the sample, and this may render the research findings too narrow to be extended to the rest of the industry. It is therefore recommended that future studies extend the sample to include other sectors of the industry such as the private medical insurance firms as well as various industry organisations.

The sampling technique used was a non-probability and purposive sampling based on the researcher's own judgment. The risk with this technique is that it is not representative of the entire population. A large representative sampling technique, may add to the credibility of the study.

This was an exploratory study and as a result it may just have provided tentative answers to the research questions, which would need to be followed up with more detailed research to provide more dependable answers (Saunders & Lewis, 2012). For that reason, it may be advisable to combine a qualitative and a quantitative methodology for future research in order to achieve more definite answers.

Finally, the research findings indicated that most firms considered that having strong state relations bettered their chances of business success in the NHI. It was also mentioned that good "connections" with the government allowed certain firms an opportunity to influence the policies, and hence a great price is placed on someone like the Company C executive director, who have strong relations in high places within government and who may be able to influence the outcome of the policy.

There is therefore a scope for research on whether state relations can have an influence on company performance in times of disruptive change, due to state intervention such as the NHI.

7.5 Conclusion

The health care industry operates in an environment that is characterized by constant change. Thus firms need to continuously reinvent themselves and adapt to the changing environment if they are to survive and prosper. Sirmon et al (2007) proposed that firms need to be prepared to respond to changes in the environment and to exploit the unforeseen opportunities when they occur.

As the competitive environment changes, so should firms reassess and reconfigure their resources into capabilities and competencies that are aligned to the new context. It is therefore not whether the firm will fail, but is how it will adapt its strategy to remain relevant to the new environment.

It is very clear in the research results that firms need to align their strategies to the new context in order to enjoy success. This point is being demonstrated in the following way; (1) Company B and Company A entering the generic market; (2) Company E, Company G, and Company F, considering various low cost business models, and thus ensuring their relevance in the NHI competitive environment which advocates affordability of health care service.

Finally, such a study on response strategies of firms that operate in the healthcare industry has an opportunity to also contribute to the understanding of other current and/or future firms that operate in similar environment.

CHAPTER 8: REFERENCES

- Albright, S. C., Winston, W. L., & Zappe, C. (2009). *Data analysis and decision making with Microsoft Excel* (3rd Ed.). Australia: South-Western Publishers.
- Atwater, C., Gopalan, R., Lancioni, R., & Hunt, J. (2010). To change or not to change: How motor carriers responded following 9/11. *Journal of Business Logistics*, 31(2), 129-155
- Barbour, R. S. (2008). *Introducing qualitative research: a student's guide to the craft of doing qualitative research*. Los Angeles: Sage Publications Ltd
- Barney, J. B. (1991). Firms, resources and sustained competitive advantage. *Journal of Management*, 17, 99-120
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27, 643-650
- Barney, J., Wright, M., & Ketchen, Jr., D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27, 625-641. doi: 10.1177/014920630102700601
- Bartlett, C. A., Hall, B. J., & Bennett, N. S. (2008). *GE's imagination breakthroughs: The Evo project*. (Case Study No. 9-907-048). Boston: Harvard Business School Publications
- Blumberg, B., Cooper, D.R., & Schindler, P.S. (2008). *Business research methods*. London: McGraw-Hill Higher Education
- Brush, T. H., & Artz, K. W. (1999). Toward a contingent resource-based theory: the impact of information asymmetry on the value of capabilities in veterinary medicine. *Strategic Management Journal*, 20(3), 223-250
- Burgelman, R. A. (2002). Strategy as Vector and the Inertia of Coevolutionary Lock-in. *Administrative Science Academy*, 47, 325-357. doi: 10.2307/3094808
- Chandler, A. D. (1993). Introduction: Strategy and structure. In *Strategy and structure: Chapters in the history of the industrial enterprise* (pp. 13-13). Massachusetts: MIT press

- Child, J. (1997). Strategic choice in the analysis of action, structure, organisations and environment: Retrospect and prospect. *Organization Studies*, 18(1), 43-76
- Child, J., Chung, L., & Davies, H. (2003). The performance of cross-border units in China: A test of natural selection, strategic choice and contingency theories. *Journal of International Business Studies*, 34(3), 242-254
- Christensen, C. M. (2006). The ongoing process of building a theory of disruption. *Journal of Product Innovation Management*, 23(1), 39-55
- Christensen, C. M., & Overdorf, M. (2000). Meeting the challenge of disruptive change. *Harvard Business Review*, 78(2), 66-77
- Christensen, C. M. (1997). *The Innovator's Dilemma*. New York: Harper Business
- Christensen, C. M., & Raynor, M. E. (2003). *The Innovator's Solution: creating and sustaining successful growth*. Boston, Mass: Harvard Business School Press
- Combs, J. G., Ketchen, Jr, D. J., Ireland, R. D., & Webb, J. W. (2011). The role of resource flexibility in leveraging strategic resources. *Journal of Management Studies*, 48(5), 1098-1125. doi: 10.1111/j.1467-6486.2009.00912.x
- Council for medical schemes. (2012). *Annual report*. Retrieved November 07, 2012 from <http://www.medicalschemes.com/files/Annual%20Reports/CMSAR20112012.pdf>
- Cresswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches* (3rd Ed.). Sage Publications: California
- Danneels, E. (2002). The Dynamics of Product Innovation And Firm Competences. *Strategic Management Journal*, 23, 1095-1121. doi: 10.1002/smj.275
- Danneels, E. (2004). Disruptive technology reconsidered: a critique and research agenda. *Journal of Product Innovation Management*, 21, 246-258
- Davis, J. P.; Eisenhardt, K. M.; Bingham, C. B. (2009). Optimal Structure, Market Dynamism, and the Strategy of Simple Rules. *Administrative Science Quarterly*, 54, 413.

- Dawley, D. D., James, J.H., & Lamont, B. T. (2002). Choice Situation, Refocusing, and Post-Bankruptcy Performance. *Journal of Management*, 28(5), 695-717
- Department of Health, South Africa. (2011). National Health Insurance in South Africa (policy paper). Retrieved November 07, 2012, from <http://www.medicalschemes.com/files/Annual%20Reports/CMSAR20112012.pdf>
- Department of Health, South Africa. (2012). The National Health Insurance presentation by the Minister of Health, Dr. Aaron Motsoaledi to the Board of Health Funds
- Dixon, R. D., Boal, K. B., & Hoffman, J. J. (2003). All hail the benefits of inertia: The case of Smooth versus Rugged Landscapes. *Academy of Strategic Management Journal*, 2, 1-22
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21, 1105-1121
- Engau, C., Hoffmann, V. H., & Busch, T. (2011). Airlines' flexibility in facing regulatory uncertainty: to anticipate or adapt? *California Management Review*, 54(1), 107-125
- Flynn, B. B., Wu, S. J., & Melnyk, S. (2010). Operational capabilities: Hidden in plain view. *Business Horizons*, 53, 247-256
- Forte, M., Hoffman, J. J., Lamont, B. T., & Brockmann, E. N. (2000). Organizational Form and Environment: An analysis of Between-Form and Within-Form Responses to Environmental Change. *Strategic Management Journal*, 21(7), 753-773
- Ganesh, J., Madanmohan, T. R., Jose, P. D., & Seshadri, S. (2004). Adaptive Strategies of Firms in High-Velocity Environments: The Case of B2B Electronic Marketplaces. *Journal of Global Information Management*, 12(1), 41-59
- Geletkanycz, M. A., & Hambrick, D. C. (1997). The external ties of top executives: Implications for Strategic Choice and Performance. *Administrative Science Quarterly*, 42, 654-681
- Ginsberg, A., & Buchholtz, A. (1990). Converting to For-Profit Status: Corporate Responsiveness to Radical Change. *The Academy of Management Journal*, 33(3), 445-477

- Grimm, C. M., Corsi, T. M., & Smith, R. D. (1993). Determinants of strategic change in the LTL motor carrier industry: A discrete choice analysis. *Transportation Journal*, 32(4), 56-62
- Haveman, H. A. (1992). Between a rock and a hard place: organizational change and performance under conditions of fundamental environmental transformation. *Administrative Science Quarterly*, 37(1), 48-75
- Helfat, C. E., & Bailey, E. E. (2005). External succession and disruptive change: heirs-apparent, forced turnover and firm performance. *Strategic Organization*, 3, 47. doi: 10.1177/1476127005050031
- Hitt, M. A., Gimeno, J., & Hoskisson, R. E. (1998). Current and future research work in strategic management. *Organizational Research Methods*, 1(1), 6-44
- Hwang, J., & Christensen, C. M. (2008). Disruptive innovation in health care delivery: A framework for business-model innovation. *Health Affairs*, 27(5), 1329-1335
- Ireland, R. D., Hoskisson, R. E., & Hitt, M. A. (2011). *The Management of Strategy: Concepts and Cases* (9th ed.). Canada: South-Western Cengage Learning
- Jankowicz, A.D. (2000). *Business Research Projects*, Third Edition, Business Press, Thompson Learning
- Kale, D., & Wield, D. (2008). Exploitative and explorative learning as a response to TRIPS agreement in Indian pharmaceutical firms. *Industry and Innovation*, 15(1), 93-114
- Leedy, P.D., & Ormrod, J.E. (2001). *Practical research: Planning and design*. Upper Saddle River, NJ: Merrill Prentice Hall
- Lengnick-Hall, C. A., & Beck, T. E. (2005). Adaptive Fit Versus Robust Transformation: How Organizations Respond to Environmental Change. *Journal of Management*, 31(5), 738-757. doi: 10.1177/0149206305279367
- Lichtenstein, B., & Brush, C. (2001). "How do resource bundles develop and change in new ventures? A Dynamic model and longitudinal exploration." *Entrepreneurship: Theory & Practice*, 25(3), 37-59

- Lippman, S. A., & Rumelt, R. P. (2003). A bargaining perspective on resource advantage. *Strategic Management Journal*, 24, 1069-1086. doi: 10.1002/smj.345
- Lopez, V. S. (2005). Competitive advantage and strategy formulation: The key role of dynamic capabilities. *Journal of Management History*, 43(5), 661-669. doi: 10.1108/00251740510597699
- Lucas Jr., H. C., & Goh, J. M. (2009). Disruptive technology: how Kodak missed the digital photography revolution. *Journal of Strategic Information Systems*, 18, 46-55
- McGrath, R. G., & Nerkar, A. (2004). Real options reasoning and a new look at the R&D investment strategies of pharmaceutical firms. *Strategic Management Journal*, 25, 1-21. doi: 10.1002/smj.358
- Markides, C. (2006). Disruptive innovation: in need of better theory. *Journal of Production Innovation Management*, 23, 19-25
- Nadkarni, S., & Narayanan, V. K. (2007). Strategic schemas, strategic flexibility, and firm performance: the moderating role of industry clockspeed. *Strategic Management Journal*, 28, 243-270
- Newbert, S. L. (2007). Empirical research on the resource based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*, 28 (1), 121-146
- Nicholls-Nixon, C., & Woo, C. Y. (2003). Technology souring and output of established firms in a regime of encompassing technological change. *Strategic Management Journal*, 24, 651-666. doi: 10.1002/smj.329
- Patton, M.Q. (2001). *Qualitative research & evaluation methods*. California: Sage Publications Inc.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods (3rd ed.)*. Thousand Oaks, California: Sage Publications
- Porter, M. E., & Teisberg, E. O. (2006). *Redefining health care*. Harvard Business School Publication

- Rosen, D. (2002). Balancing Business & National Health: The Impact of Legislation on Pharmaceutical Drug Prices
- Sandstrom, C., Magnusson, M. & Jornmark, J. (2009). Exploring factors influencing incumbents' response to disruptive innovation. *Creativity and Innovation Management*, 18(1), 8-15
- Saunders, M., & Lewis, P. (2012). Doing Research in Business and Management. Edinburgh Gate: Pearson
- Shimizu, K., & Hitt, M. A. (2004). Strategic flexibility: Organizational preparedness to reverse ineffective strategic decisions. *Academy of Management*, 18(4), 44-59
- Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing firm resources in dynamic environments to create value: looking inside the black box. *Academy of Management Review*, 32(1), 273-292
- Statistics South Africa. (2011). *Mid-year population estimates*. Retrieved November 07, 2012, from <http://www.statssa.gov.za/publications/P0302/P03022011.pdf>
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533
- Uhlenbruck, K., Meyer, K. E., & Hitt, M. A. (2003). Organizational transformation in transitioning economies: Resource-based and organizational learning perspectives. *Journal of Management Studies*, 40, 2
- Van den Berg, E. (2011) National Health Insurance: Implications for medical practice. *South African Family Practice*, 53(6), 601-604
- Wade, M., & Hulland, J. (2004). Review: The resource-based view and information systems research: Review, extension, and suggestions for future research. *Management Information Systems Quarterly*, 28(1), 107-142
- Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24, 991-995. doi: 10.1002/smj.318

- Wood, M. S., & Michalisin, M. D. (2010). Entrepreneurial drive in the top management team: Effects on strategic choice and firm performance. *Journal of Leadership and Organizational Studies*, 17(3), 222-239. doi: 10.1177/1548051810368548
- Wright, G., Van Der Heijden, K., Burt, G., Bradfield, R., & Cairns, G. (2008). Scenario planning interventions in organizations: An analysis of the causes of success and failure. *Futures*, 40(3), 218-236
- Yang, B., Bae, E., & Kim, J. (2008) Economic Evaluation And Pharmaceutical Reimbursement Reform In South Korea's National Health Insurance. *Health Affairs*, 27(1), 179-187. doi: 10.1377/hlthaff.27.1.179
- Yu, D., & Hang, D. (2009). A reflective review of disruptive innovation theory. *International Journal of Management Reviews*, 12, 435-452
- Zikmund, W. G. (2008). *Business research methods*. Mason, OH: Thomson/South-Western



Annexure 1: Interview Guide

1. What is your general opinion about disruptive change (as caused by the NHI legislation)?
2. How do you think your business will be affected?
3. What challenges do you think will be brought about by the disruptive change (NHI) in your company?
4. How do you plan to respond to these challenges as an organisation?
5. What resources and capabilities do you consider to be unique to your firm in comparison to your competitors?
6. Why do you consider them unique to your firm?
7. Do you consider them to be your source of competitive advantage and why?
8. How were they developed to such an extent that they have become your source of competitive advantage?
9. What are the intra-organisational processes that have contributed to the development of your capabilities?
10. How are these capabilities evolving and changing in response to the changes in the external environment?
11. How can your company's resources and capabilities contribute to your readiness in responding to NHI or any other similar government legislation?
12. What steps is your company taking in response to the NHI, in order to ensure that it maintains its competitive advantage over its competitors?
13. What has been your source of success over the past 10 years?
14. Would you still rely on those same success factors going into the next 10 years?
15. Tell me about your organizational structure and how it may or may not help you in responding effectively to the challenges and/or opportunities that may be brought about by the NHI?

16. Do you think that your company has got people with the required skills and talent to deal with challenges and/or opportunities that may be brought about by the NHI?
17. What is the role of top, middle and front-line staff in the evolution of your capabilities?
18. Is your response to NHI affected by your current strategy at all? Please explain?
19. What are the intra-organisational factors that may influence the way you respond to the NHI and why?