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Mosese, Manthisana. (2021). Transformation from product-orientation to solution proposition – a case study within a health technology company in Africa [Master's dissertation, University of the Witwatersrand, Johannesburg]. WireDSpace.https://hdl.handle.net/10539/41415

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Transformation from product-orientation to solution proposition – a case study within a health technology company in Africa

by

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WITS Business School

Research report presented in partial fulfilment for the degree of

Master of Business Administration

to the Faculty of Commerce, Law, and Management,
University of the Witwatersrand

March 2021

DECLARATION

I, Manthisana Mosese declare that this research report entitled "Transformation from product-orientation to solution proposition – a case study within a health technology company in South Africa" is my own unaided work. I have acknowledged, attributed, and referenced all ideas sourced elsewhere. I am hereby submitting it in partial fulfilment of the requirements of the degree of Master of Business Administration at the University of the Witwatersrand, Johannesburg. I have not submitted this report before for any other degree or examination to any other institution.



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Signed at Johannesburg on 31 March 2021

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ABSTRACT

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Thesis Title: Transformation from product-orientation to solution proposition – a case study within a health technology company in Africa

The concept of selling integrated solutions, as opposed to selling individual products, has emerged as a method of understanding and addressing customers' problems holistically. As such, this concept has become popular, particularly in business-to-business (B2B) companies that seek differentiation in highly commoditised markets.

The purpose of this research was to explore key success factors for transforming from product-orientation to integrated solutions for a multi-national B2B Healthtech company. The study was supported by the theories of organisational design, service dominant logic and absorptive capacity.

The research adopted an exploratory, qualitative single case study method. Data were collected from internal company documents and portals as well as from a sample of 11 participants from the case company – ranging from executive level to middle management – using semi-structured interviews. The resultant data from the interviews were analysed using a combination of methods including the NVivo tool.

The findings indicate that a successful transformation program from product-orientation to solution-orientation for the Healthtech company requires structural changes in the company's organisational design as well as its capabilities. The results further indicate that the adoption and utilisation of value co-creation is pertinent in addressing customer problems and can produce quantifiable value for both the company and its customers.

Keywords: Solution selling, solution-orientation, transformation, customer value co-creation

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ACKNOWLEDGEMENTS

Mama – Mpinga, Mpondomse, Mbolokoqoshe, Senziwa Mbhalaka, Mawawa, Nto'Mtana. This one is for you.

My sincere gratitude to my research supervisor, Dr Thabo Mosala. I am grateful for the opportunity to have been guided by you for this research. I will forever be inspired by your intellect and wit.

To Dr MDJ Matshabaphala, thank you for allowing me to gate-crash your meetings and making me believe that this is possible no matter how frantic I was. I look up to you.

My friends and Philips study mates - Sese, Andile, ausi Connie, Nto and Zee, thank you for the encouragements, the laughs, the eats, the long chats when we were supposed to be working and just the many intellectual conversations. Here's to a lifetime of friendship.

Nelly – thank you for your love, care, understanding and the yummy jollof rice. I can't wait!

To my friends and sisters – thank you for your prayers. They were and are priceless.

I am grateful to my company for allowing me the space and time to study and to carry out this research. A special thank you to the interview participants for being generous with their time and knowledge. I am educated.

Ntate Masoka, I am stress-free because of you. Thank you.

To the lover of my soul, Lord Jesus, "How precious also are Your thoughts to me, O God! How great is the sum of them!". I am overwhelmed by Your love and Your faithfulness. I know there is certainly no way I could have done this without you, and for that I glorify Your holy name!

DEFINITION OF KEY TERMS AND CONCEPTS

In order to provide context to the focus of this study, there are two key concepts defined in this section.

Solution

Dictionary.com (2021) defines a solution as an action towards solving a problem. In academic literature, solutions are defined as personalised offers for complex consumer problems, where the offers are interactively produced by integrating products and/or services, so that their components add value, which is greater than the sum of the components themselves (Davies et al., 2007; Galbraith, 2002; Storbacka, 2011). Töytäri (2018)'s perspective of a solution is an integration of a customer's and a supplier's resources (such as knowledge, skills and technology, among others) to create solutions that maximise value. The Healthtech company, the subject of this study, defines solutions as logical bundles of goods, devices, systems, software, and services targeted at fulfilling customer demands more holistically than a collection of individual products would do (The Healthtech Company, 2021). Solutions are thus personalised propositions of integrated products and/or services constructed to address customer problems and create measurable value.

Transformation

The term transformation is defined as a total change in the appearance or character of something or someone, especially to enhance that object or person. (Cambridge Dictionary, 2020b). It is described as an acute and fundamental transformation that alters the very nature of something (Gass, 2012). According to Hölscher et al. (2018), transformation is more commonly used to refer to large-scale changes in entire societies. The said changes can be global, national, or local, and involve interactive human and biophysical system components. Transformation analysis focuses on processes and dynamics that produce patterns of change to explain how non-linear shifts from one state to another are supported or hindered (Gass, 2012). As such, transformation is a total change from one state to another. In the context of this research, transformation means a complete change from selling fragmented products to selling integrated solutions.

1. INTRODUCTION TO THE RESEARCH

1.1 Background and context

The business world abounds with numerous great examples of organisations that have successfully transformed from one state to another. Perhaps the most notable and well-studied is Apple Incorporated. With Steve Jobs at the helm, Apple transformed from selling products to selling solutions through the Apple ecosystem (Steinwart & Ziegler, 2014). The transformation of IBM is another well-studied case. Lou Gestner transformed a company on the brink of collapse, which was operating in an industry that was rapidly becoming commoditised, into one that offers customers high-value solutions to address their business problems (Farrell, 2017).

The concept of solutions has become ubiquitous in companies that sell products or services. In lay language, a solution is merely an answer to a problem, or a method of resolving a difficult problem (Cambridge Dictionary, 2020a). As companies are burdened with problems that need addressing, it is unsurprising that this term has become widely used. Within the business world, particularly in business-to-business (B2B) companies, the idea of configuring and selling integrated solutions, as opposed to individual goods and services, has intensified (Cova & Salle, 2007). Likewise, theories around this concept suggest that, by pursuing solutions-oriented approaches, a company in a maturing product market, with diminishing revenues, and concerns of commoditisation, can develop a differentiation strategy through transforming to solutions. This was the subject of this research.

This research explored the transformation from product-orientation to solutions-orientation within a health technology company in South Africa. The focus of the research was on exploring the methods that the Healthtech company, a Health Technology company that will henceforth be referred to as 'the Healthtech company', can employ to carry out the transformation successfully.

The research conceptualisation section provides for the research problem statement in section 1.2.1 and consequently the purpose of this research. The research questions are detailed in section 1.2.2. The delimitations and assumptions of the research study are in section 1.3, while a discussion of the significance of the research study is in section 1.4.

The preface to the research report is found in section 1.5.

1.1.1 Organisational transformation towards solutions

Modern organisations operate in globalised and highly competitive environments, which are fuelled by the wide-spread utilisation of technology. The sustainability of these organisations is dependent on their ability to adapt, and thus the greatest challenge for these organisations is to continue to implement positive improvements that promote continued efficiency, effectiveness and sustainability (Schalock et al., 2018). For many of these organisations, particularly those that operate B2B, it has become increasingly challenging to stay competitive by exclusively selling products or services (Cova & Salle, 2007). For this reason, many of these B2B organisations have carried out transformation projects towards integrating their products into solutions to address customer needs holistically.

1.1.2 Solution selling and the impetus to transform

In as much as the business world is changing, customer needs and expectations are equally evolving in line with demographic, technological and lifestyle changes. As customer needs evolve, organisations are compelled to adapt their strategic focus to align with these changing needs (Brady et al., 2005). Consequently, these organisations are beginning to shift their focus from product-based outcomes, which focus purely on what the customer needs, to providing integrated solutions, which focus on how the customer's problems can be holistically addressed to add value (Demeter & Szász, 2013).

In addition, and according to Bano et al. (2018), as customers are seeking to extract value from their procurements, they are shifting beyond traditional product procurement to value-based models. The author's study estimates that, by 2022, forty percent (40%) of total customer procurement budgets will be spent purchasing solutions rather that fragmented products. Furthermore, increased competition, declining profitability and price pressures resulting from product commoditisation, are cited as motivators for organisations to convert to solutions (Hakanen & Jaakkola, 2012; Levihn & Levihn, 2016; Storbacka, 2011; Storbacka et al., 2013). Thus, the exclusive demonstration of the value of individual products, devoid of the overall value customers can derive from integrating the products, no longer suffices for customers. Consequently, organisations, including

the Healthtech company, are looking to transform their organisations towards solution-orientation.

1.1.3 Introduction of the Healthtech company and the journey towards solution transformation

The Healthtech company is one of the world's leading health technology companies. The vision and purpose of the company is: "Improving people's health and enabling better outcomes across the health continuum – from healthy living and prevention, to diagnosis, treatment and home care (The Healthtech Company, 2021)."

The company was established in 1891 and has a strong history of innovation spanning over a century, first producing lightbulbs, then moving onto electronics and then finally shifting into health and well-being towards the end of the last century. As a health technology company, it has developed and acquired a portfolio of innovative products. These products are currently fragmented and offered to the customer individually, implying missed opportunities in evaluating the customer's entire eco-system, identifying all gaps and selling complete solutions.

Thus, the transition from selling individual products to selling solutions that are aimed at solving customer needs holistically will assist the Healthtech company in maximising value for the customer through innovative and value-added integrated solutions. This will, in turn, strengthen the relationships the Healthtech company has with customers, and thereby improving the customers' profitability as well as its market-share.

The company has implemented turnkey solutions in Europe and North America since 2016; however, its ambition is to become a fully-fledged solutions-oriented company (The Healthtech Company, 2021).

1.2 Research Conceptualisation

1.2.1 The research problem statement

Although the subject of solutions has been vastly studied, there is still an assortment of impediments to transformation. These include the appropriate organisational design, the correct capabilities, the high cost and the complexity of a value-based approach (Storbacka et al., 2013). Similarly, the product-oriented sales culture, management

strategies, incentives, IT processes, organisational culture, organisational values as well as other challenges at the organisational level are hindrances to reform (Töytäri, 2018). Additional to these barriers, and particular to this study, barriers, such as product commoditisation, a rigid market approach, a lack of long term planning and bureaucracy, to name a few, are impeding the Healthtech company's desire to fully understand and then address its customers' needs holistically and transform to solutions.

As such, the empirical part of this research sought to uncover the design of the organisation and whether it is fit for solutions, the current capabilities within the company and whether the transformation project will yield the desired results in terms of measurable value.

1.2.2 The research purpose (aim and objectives) statement

The purpose of this research was to investigate the key success factors for transforming from product-orientation to integrated solutions for the multi-national B2B Healthtech company. The research was underpinned by the theories of organisational design, service dominant logic as well as the absorptive capacity framework.

The objective of the research was to investigate factors relating to organisational aspects, value propositions and capabilities that influence successful transformation to solutions. The research endeavoured to achieve this objective by exploring the following research questions:

i. How can the Healthtech company adapt its organisational design in order to successfully transform from a fragmented product strategy to integrated solutions-orientation?

ii. In what way can the Healthtech company adopt and use the concept of customer value co-creation to ensure that the correct customer issues are appropriately addressed, and value is derived from these solutions?

iii. What capabilities and competencies should be acquired by the Healthtech company to enable successful transformation to solutions-orientation?

1.2.1.1 **Question 1:** How can the Healthtech company adapt its organisational design in order to successfully transform from a fragmented product strategy to integrated solutions-orientation?

Research Proposition 1

Adapting the organisational design to align to a solutions approach will enable successful transformation from product-orientation to solutions-orientation.

1.2.1.2 **Question 2:** In what way can the concept of customer value co-creation assist the Healthtech company with correctly identifying and appropriately addressing customer issues to ensure value is derived from solutions?

Research Proposition 2

Adopting the concept of customer value co-creation will ensure the correct customer issues are appropriately addressed and value for the customer is realised.

1.2.1.3 **Question 3:** What capabilities and competencies should be acquired by the Healthtech company to enable successful transformation to solutions-orientation?

Research Proposition 3

Acquiring the right capabilities and competencies enable successful transformation to solutions-orientation.

1.3 Delimitations and assumptions of the research study

1.3.1 Delimitations

This research adopted the view that the main focus of the study should be limited to B2B companies in the health technology industry. This study was therefore carried out as a case study and the scope was limited to the Healthtech company, its organisation, its processes, and its organisation, processes and people in the African continent.

The choice of the research questions and the objective were selected to explore factors relating to the Healthtech company's inability to address its customers' problems holistically. The discussion was thus limited to exploring the right organisational design and structures, value creation and the capabilities required to address the Healthtech

company's specific problem.

1.3.2 Assumptions

The assumptions pertaining to this study are as follows:

- It was assumed that the researcher will have access to the necessary documentation and interview participants to complete the study.
- It was assumed that the participants will provide candid answers to the interview questions to the best of their ability.
- It was assumed that the participants will, of their own accord, participate in the study willingly.

1.4 Significance of the research study

The contributions of this study are of interest to the academic fields of Strategy, Sales and Marketing Management, especially in relation to solution-selling. The study also concerns the management of the Healthtech company, which is the focus of this report. Although the subject of solutions transformation has been extensively covered over the years, mostly in manufacturing and IT sectors (Demeter & Szász, 2013; Macdonald et al., 2016), there have been few cases covering the health technology space, particularly in the African context. This study aimed to fill these two gaps.

1.5 Preface to the research report

The report has six chapters. This introductory chapter addressed the background to the research, the problem statement, the objectives of the study and the research questions.

Chapter 2 presents arguments from the literature on solutions, the selling of solutions and the transformation to solutions. The literature review covers the problem analysis, the past studies in solutions transformation, the explanatory framework and the conceptual framework associated with this research study.

Chapter 3 discusses the research strategy, design and procedures selected for this study. This chapter also reviews the reliability and validity measures as well as the limitations of the study.

Chapter 4 presents the data collected from company documentation as well as from the semi-structured interviews conducted with the chosen sample.

Chapter 5 analyses and interprets the findings presented in Chapter 4, in accordance with the research sub-questions to ascertain if the research propositions, as presented in Chapter 1, are answered.

Chapter 6: This concluding chapter summarises the entire report, offers recommendations as well as the overall limitations of the study.

2. LITERATURE REVIEW

A literature review is said to be one of the pillars on which a study stands (Sachdev, 2018). It is defined as a systematic summary of all information available on a given topic. It is typically one of the first steps a researcher will undertake to learn more about previous research written and published on the topic of interest (Sachdev, 2018). It includes how the authors theorised and conceptualised the topic, how the data were collected, the instruments used to collect the data as well as the findings from the research (Mouton, 2013). Therefore, a literature review is a mechanism by which a researcher can learn more about their study and what has been previously researched on that subject.

This chapter has three broad objectives, namely, to understand the research problem, to identify the knowledge gap, and to develop a framework for interpreting the research findings. In Section 2.1, the research problem is detailed while Section 2.2 reviews literature on studies that have conducted a similar study or research. With information arising from Section 2.2, the qualitative attributes that are key to this research are detailed in Section 2.3 and finally, the theoretical frameworks that are used to interpret the research findings are discussed in Section 2.4.

2.1 Research Problem Analysis: Transformation towards solutions-orientation

According to Bacharach (2014), not all companies aspire to be solution-based as some are content with selling individual products. Bacharach (2014), however, adds that companies that are seeking a competitive edge may want to contemplate incorporating a solution-based culture into their product-based culture, as this will result in a more agile relationship with customers. Professor Theodore Levitt disagrees with Bacharach, (2014)'s initial statement above and refers to it as "marketing myopia". In a republished article for the Harvard Business Review (HBR), Levitt (2004) describes this phenomenon as the short-sightedness of companies' focus on selling their products to the detriment of understanding exactly what the customer needs. Therefore, the move to becoming a full-fledged solutions-oriented company should be heralded by customer-centricity with the desire to solve customers' problems at its core.

Customer-centricity: Understanding customer problems

Most, if not all, of the solutions related articles begin by emphasising that at the heart of a solutions-oriented business is customer-centricity. Customer-centricity, according to (Frankenberger et al., 2013), is described as the degree to which a company focuses on understanding its customers, their needs and problems, and then offering customer-focused solutions. Not only does customer-centricity mean a commitment to understanding customers' needs, but it also implies the aptitude to continuously exceed them (Vlašić & Tutek, 2017). A lack of customer centricity is therefore an indicator of a company's inability to address customers' problems holistically. Being customer-centric is a mindset, and it means being a solutions-oriented company that can adapt with flexibility and speed to any demand, market opportunity and threat, through integrated processes within the company and with key partners, suppliers and customers (Bartek et al., 2007). It is, therefore, a company that differentiates itself from competition by integrating all the required products and processes to solve customers' problems.

In a PWC report on customer centricity, Tipping et al. (2004) compare a product-centric to a customer-centric company. Among other factors, a product-oriented company is said to have a narrow view of its customer's value proposition, while a customer-centric company seeks to broadly understand the customer's value proposition. Whereas a customer-centric organisation will foster deeper relations with its customer and include them in the innovation process by tailoring their solution to address the problems holistically, a product-focused company's focus is on the product (which may be cutting edge) in a "one size fits all" approach. This comparison is congruent with an earlier comparison carried out by Galbraith (2002). The author adds factors such as the mindset, stating that the mindset of a customer-oriented company is convergent as it considers the best combination of products for the customer, as opposed to a divergent mindset in a product-oriented company, which only considers the number of possible uses of the product. Figure 1 below juxtaposes a solutions and a product-oriented company according to Galbraith (2002).

	Product-Centric Company	*Customer-Centric Company*
Goal	Best product for customer	Best solution for customer
Value creation route	Cutting-edge products, useful features, new applications	Customizing for best total solution
Mental process	Divergent thinking: *How many possible uses of this product?*	Convergent thinking: *What combination of products is best for this customer?*
Most important customer	Most advanced customer	Most profitable, loyal customer
Priority-setting basis	Portfolio of products	Portfolio of customers — customer profitability
Main offering	Specific products	Personalized packages of service, support, education, consulting
Organizational concept	Product profit center, product reviews, product teams	Customer segments, customer teams, customer P&Ls
Most important process	New product development	Customer relationship management
Measures	• Number of new products • Percentage of revenue from products less than two years old • Market share	• Customer share of most valuable customers • Customer satisfaction • Lifetime value of a customer • Customer retention
Culture	New product culture: open to new ideas, experimentation	Relationship management culture: searching for more customer needs to satisfy
Rewards	Based on business unit performance	Based on company performance
Approach to personnel	Power to people who develop products • Highest reward is working on next most challenging product • Manage creative people through challenges with a deadline	Power to people with in-depth knowledge of customer's business • Highest rewards to relationship managers who save the customer's business
Sales bias	On the side of the seller in a transaction	On the side of the buyer in a transaction

Figure 1: Product-centric vs solution-centric companies.

Source: (Galbraith, 2002, p. 5).

Both Galbraith (2002) and Tipping et al. (2004) consider the differences in the organisation of a product-oriented company and a solutions-oriented company and to transform successfully, a company's organisational design requires structural changes at its core.

2.1.1 Organisational Design

The transformation journey to solutions demands a radical change in business logic, product offerings, business and customer relationships, processes, management, rewards, skills and resources, as well as most organisational functions, especially sales (Töytäri, 2018). The execution of such a structural reform has been challenging for companies who have undergone this transformation. The reform, in certain instances, is wide-ranging and

Davies et al. (2007) provide examples of companies that have had to vertically-integrate or amend their business models to become coordinators of the integration of products in order to provide the solutions demanded by their customers.

To be successful in implementing solutions, Storbacka (2011) posits that a company-wide transformation initiative is required. The author suggests that solution creation and selling not be assigned to any particular role in the organisation. He further states that sponsorship from all functions, including product creation, marketing, distribution, logistics and finance, be obtained in order to transform successfully. The author adds that a solutions-oriented structure requires collective involvement from management, customer participation in business planning, and that its cross-functional existence must be supported by the measures used to regulate the business. This will entail improvements in the way businesses implement their business models to establish harmony between functional goals and business processes.

Levihn & Levihn (2016) agree with Storbacka (2011) and further express that companies that are transforming from product sales to solution sales require reforms that involve people, strategy, structure, rewards, and processes. In their paper, the authors review the differences between a product-centric and a solutions-centric company's organisational structure. In a product-centric company, the structure is created around goods or services, and the sales and marketing departments revolve around these products or services. On the other hand, customer accounts and categories are the main concerns in sales and marketing in a solution-centric company.

From the above descriptions, it is clear that a successful transformation to solutions cannot be possible in an environment where departments work in isolation. The path to transformation is challenging and demanding, and, according to the five companies studied by Davies et al. (2007), several changes have had to be initiated by these companies since the inception of their transformation journeys. All five companies have made significant efforts in vertical and forward integration to reorganise themselves for solutions provision by incorporating service elements, component integration from various external companies and consulting guidance, and services to run, manage and fund a system over its life cycle, to name a few. As such, the restructuring of a company's organisation grows the companies' capabilities that can be exploited to deliver value for its customers (Galbraith, 2002).

2.1.2 Value co-creation

The maturity of many markets and the commoditisation of products have forced organisations to transform to solutions (Macdonald et al., 2016). Product commoditisation is one of the leading causes of customers moving to other suppliers, and one of the driving forces for developing and implementing solutions as a method of product differentiation (Haukkavaara, 2007). Commoditisation means greater product homogeneity, greater price resilience, lower costs and ease of switching (Biggemann et al., 2013; Macdonald et al., 2016). In addition, commoditisation shortens the life cycle of products and brings firms under profit pressure (Haukkavaara, 2007). The proliferation of technology, particularly in the Artificial Intelligence (AI) domain, has increased product commoditisation, further impacting companies that are not exploring differentiation measures such as integrated solutions (Hakanen & Jaakkola, 2012).

The impact of product commoditisation manifests in several ways, one of which is the change in the buying behaviour of customers. Over the years, customers have acquired a deep understanding of their problems and gaps, and have developed sophisticated procurement teams and buying advisors, who are quickly able to identify their options (Adamson et al., 2012). Moreover, new entrants and increased competition, particularly from the far East, are further aspects of commoditisation. These entrants have products that have much of the same innovative features but their aggressive price strategies make it challenging for companies that do not have product differentiation to compete (Haukkavaara, 2007). A differentiation strategy means distinctiveness which customers appreciate sufficiently to allow a price premium (Johnson et al., 2017). Solutions are thus regarded as competitive strategies for organisations to capture added value from their product offerings. This is because solutions provide consumers with value that lies in the differentiations that they have to offer (Töytäri, 2018).

Some researchers have, however, reported on the intangibility of this value (Adamson et al., 2012; Driedonks et al., 2019; Lindström, 2016) and thus value capture is a crucial component of solutions. According to Brady et al. (2005), solutions add value by offering variations of products and services that are unique and generate opportunities for individual customers. Furthermore, value in integrated solutions can be derived through streamlined processes, cost savings, performance guarantees, convenience, personalised services and state-of-the-art offerings for the customer (Jaakkola & Hakanen, 2013), while

value for the solutions-oriented company includes growing financial returns as well as improving relations with customers (Plouffe et al., 2020).

To further offer customers value, solutions-oriented companies carry out tasks traditionally performed in-house by their customers and develop innovative ways for these components to function together as an interconnected system, to maximise the total effectiveness of the solution. Where possible, they also take the responsibility of integrating multiple suppliers, thus creating a network, in order to provide holistic solutions to the customer (Brady et al., 2005).

However, the empirical findings of Biggemann et al. (2013) indicate that not all customer solutions are guided by the supplier organisation. The authors posit that value can be co-created through a co-development process between the supplier company and the customer. Töytäri (2018) agrees with this notion and states that the implementation of solutions necessitates the exchange of knowledge, the assessment of alternatives based on the value generated, and a mutual commitment between the supplier and the customer to value development.

The concept of value co-creation is significant given that, as recently as 2020, new frameworks in value co-creation were being developed. This includes Plouffe et al. (2020)'s seven stage solutions value co-creation framework. Value co-creation stems from a mutually beneficial partnership between the customer and the supplier, where each group contributes tools that are both specific and complementary to the value creation process (Sheth, 2020). Plouffe et al. (2020) posit that it is impossible to generate value without cooperation as co-creation is closely related to the financial returns of a company and value for the customer.

Exploring new opportunities for value development stimulates the creation of a horizontal integration distribution network. As businesses recognise these opportunities, they begin to incorporate them into value-creation techniques and reorganise their capability base to create multi-dimensional value networks (Gebauer et al., 2013).

2.1.3 Capabilities

According to (Brady & Davies, 2004), integrated solutions providers need to think and behave in ways that are radically different from businesses that are either industrial or product-based. They need to enter into new forms of relationships with their customers and develop new approaches to ensure quality consistency in their offerings and maximise value by boosting their capabilities (Driedonks et al., 2019).

In spite of these opportunities, many companies struggle with implementing changes to make the transformation successful because there is no agreed market model for delivering comprehensive solutions, including how to coordinate and develop effective capabilities and skills to ensure success in their transformation (Davies et al., 2001). This belief is echoed by Driedonks et al. (2019) who, almost 20 years later, states that most solution-centric companies are more under-developed in commercial capabilities than their product-centric counterparts.

According to Haukkavaara (2007), solutions providers must achieve comparative and competitive advantages. A comparative advantage is the ability to offer a superior or more cost-effective solution than the customer can, while a competitive advantage is the ability to provide a better or more cost-effective solution than the competitors. To achieve these advantages, a solutions provider must acquire core capabilities that are superior to those of clients and competitors. This demands that companies redesign, not only their product offerings, but also reconfigure and acquire multiple capabilities to address a wider pool of customer needs (Ceci & Masini, 2013).

Capabilities are defined as the capacity to deliver resources to accomplish goals and they are crucial building blocks for the implementation of strategy (Galavan, 2015). In another definition by Davies et al. (2001), capabilities refer to organisational processes, knowledge, skills and experience that a company must acquire to perform specific activities such as system integration. Storbacka (2011) differentiates between commercial capabilities and industrial capabilities. He explains that commecrial capabilities relate to a provider's ability to comprehend the value of customer generation processes and to develop solutions that enable clients to generate better value. Furthermore, capabilitie generate demand for those solutions, promote and receive compensation based on the usage of the solution.

Driedonks et al. (2019) refer to sales, account management, organisation effectiveness and commercial support as commercial capabilities. Industrial capabilities, on the other hand, are about the company's ability to produce and deliver solutions effectively.

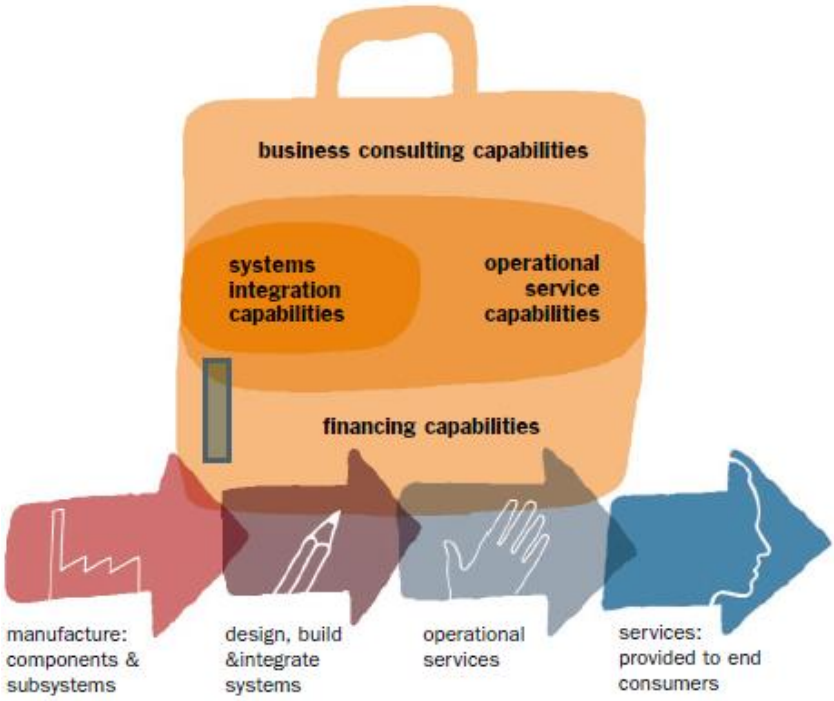

Figure 2: Capabilities Framework

Source: (Davies et al., 2001, p. 6)

Davies et al. (2001) identify four capabilities required to implement and embed integrated solutions (Figure 2). These are:

- Systems integrated capabilities that are capabilities required to design and integrate different products;
- Operational services capabilities that are used to manage the operations of the solutions through their life cycle;
- Business consulting capabilities that relate to understanding a customer's business and to offer solutions that address a customer's specific needs holistically; and
- Financing capabilities that are used to facilitate the purchase of the new capital-intensive solution to assist with managing the customer's installed base of capital assets.

In developing capabilities for solutions, Brady & Davies (2004) argue that supplier

companies can develop new skills by learning from previous projects, from project to project, and from project to organisation, that is, embedding the new capabilities. Storbacka (2011) extensively studied a broad range of reseach that involved ten (10) multinational companies to develop his framework of sixty-four (64) capabilities across twelve (12) categories along this solution business model framework. The author classifies the capabilities into four categories, strategy planning, management systems, infrastructure support and human resource management (HRM). Whilst acknowledging the extensive work conducted by Storbacka (2011), Raddats & Burton (2014) note that there is no differentiation between resources and capabilities in Storbacka (2011) model and seek to plug this gap. They too, developed a list, split between resources and capabilities, as their contribution to the body of literature. To these lists, Driedonks et al. (2019) add listening and inquiry skills as being crucial for the success of solutions-based companies.

In summary, selling solutions is different to selling products and it is incumbent on solutions-oriented companies to create additional value for their customers. This additional value is referred to as "solution surplus" and it entails a value proposition that adds better value than singular products can provide, and capabilities that enable the delivery of the value proposition better than those of competitors (Miller et al., 2002 as cited by Haukkavaara, 2007, p. 15).

The next section further reviews similar studies in the areas of solution-selling and transformation to identify knowledge gaps in this field.

2.2 Research knowledge gap analysis: Studies on the transformation to solutions value proposition

The purpose of this section is to explore previous literature in the areas of solution selling in order to uncover the knowledge gap. A knowledge gap is described as an instrument to identify space for contributing new research (Bezet, 2020). This section reviews research methods, data collection strategies, research design, research findings as well as limitations from studies by different authors on models for transforming to solutions to unearth the knowledge gap pertaining to studies on solutions transformation, which justifies the undertaking of the current study.

In much of the literature pertaining to solution transformation, the research strategy is

exploratory and mainly focuses on single or multiple case studies (Brady et al., 2005; Hoeber & Schaarschmidt, 2017; Jaakkola & Hakanen, 2013; Lindström, 2016; Storbacka, 2011). The literature covers a broad range of perspectives across diverse industries, from manufacturing to Information and Communications Technology (ICT). Likewise, the literature surveyed for this report, and this section particularly, includes the impact of transforming to solutions for organisations, to customer relationships, customer centricity, value co-creation, employees, management practices and employee capabilities across different industries.

Höber and Schaarschmidt (2017) examined the effect of transforming to solutions on the absorptive capacity of a company and the relationship between the company and its customers. The authors surveyed a medium-sized German Information Technology (IT) company and used semi-structured interviews. From the eleven (11) interviews conducted with senior managers and consultants within the company, the study found that the relationship as well as the trust between the company and its customers improved due to the collaborative nature of moving to solutions. This collaborative nature facilitates strong teamwork between the supplier and the client, leading to an intense exchange of experiences, information, and expertise, resulting in increased idea generation. The final aspect of the study dealt with the absorptive capacity of the company. The results, once more, revealed that transforming to solutions increases a company's absorptive capacity, although only when solution-related knowledge is developed upfront. The major limitation recorded in this study pertains to the fact that case study research cannot be generalised, providing a gap to study other cases thereby adding to the literature.

Likewise, Brady et al. (2004)'s paper on the value created from implementing integrated solutions studied leading suppliers of complex products and systems, among them Ericsson, Thales in-flight simulations, and Alstom, a railway company. The paper details the implications of the move to integrated solutions by the companies surveyed on their relationships with their customers. The authors observed that value is created by the companies by:

- eliminating the customer's need to assemble or incorporate the goods and services that make up a solution;
- taking ownership for negotiating with various suppliers of solutions component parts; and

- developing new ways for the components of the solution to integrate and function together to increase the overall value of the solution for the customer.

Hakanen and Jaakkola (2012) conducted a similar study of value creation. The authors specifically studied the co-creation of value between the company, its suppliers and its customers in a network setup. They reviewed how customers and companies integrate resources in the development of integrated solutions. The study further describes the associated benefits and sacrifices perceived by each participant in two separate networks of solutions. The results indicated that all participants in the study (company, suppliers and customers) perceived both benefits and shortfalls. The perceived value from the customer perspective emanated from the ability to outsource resource integration to the supplier, meaning the customer is relieved from coordination work, leaving the company able to concentrate on its core business. This resonates with the Brady et al. (2004) study where the major value on the supplier side was the increase in sales due to improved relationship with the customers, access to new markets as well as differentiation while the sacrifices ranged from lack of pricing transparency to increased investment in developing solutions.

Although Hakanen and Jaakkola's (2012) study expanded the studied participants in their research on value creation in integrated solutions, their study is case-specific and limited to two cases only, thereby recording the same limitation.

In another study by Levihn and Levihn (2016), the authors examined the launch of solutions in a multinational B2B company that simultaneously launched a solution sales strategy in seventeen (17) countries. The aim of this study was to investigate how to handle and coordinate employees, in particular, sales representatives, and whether it is possible to migrate their capabilities to solution selling. The results revealed that there were differences in the implementation approach in different countries which was the reason some countries succeeded in the implementation and others did not. The results further indicated that establishing and separating a solutions business from a traditional product business leads to the successful implementation of solutions due to the fact that different capabilities and mindsets among the sales team are required to successfully implement solutions. Over and above the now known limitation of the case study approach, Levihn and Levihn (2016) furthermore point out another gap in that the use of interviews will contain the interviewees' personal influences.

Although the concept of integrated solutions has been around for many years, the literature around the development and implementation of solutions has been varied as several authors have sought to plug in the gaps where necessary. Many of the cases studied are mostly in manufacturing (Demeter & Szász, 2013; Macdonald et al., 2016), Information Technology (Haukkavaara, 2007) and other service industries (Höber & Schaarschmidt, 2017). While solutions have been implemented in the healthare and health technology industries, there are limited empirical studies covering this sector, in particular, on the African continent. As the subject of this research is a multinational health technology company with a presence in Africa, this is a gap this research aims to cover.

2.3 Key attributes involved in exploring successful transformation to solutions-orientation

The aim of this section is to define and discuss the attributes that are central to this research. The section begins with a brief description of each attribute and then it discusses how the attributes affect each other.

An attribute is a quality or feature that is an intrinsic component or characteristic of something or someone (Cambridge Dictionary, 2020). In statistics, it is a data field that describes a data object's characteristics or features. For example, the data object "customer" can be characterised by attributes such as customer name, customer ID and physical address. Attributes are used to categorise qualitative data. Variables, on the other hand, are used in quantitative analysis and are numeric as well as structured in nature. Examples of quantitative variables include response times, weight, height, scores, etc.

This research report followed a qualitative method and therefore the attributes pertaining to this study include organisational design, capabilities and customer engagement and value.

Organisational Design has been identified as an independent attribute, while capabilities and customer engagement are dependent attributes. An independent variable (an attribute, in this case) is one that can be controlled and adjusted by the experimenter (for example, the Healthtech company). It has a direct influence on the dependent variable. A dependent variable is a variable being evaluated and measured and depends on the independent variable (McLeod, 2019).

An organisational design is defined as a human-centred approach to changing how teams work together and how organisations adapt to change. Without an organisational design, incorrect priorities are defined and measured, bureaucracies are amassed, unproductive work is created, best people are lost and creativity and potential are suppressed (Nobl Academy, 2018). Any change to the organisational design will affect value generation capabilities and customer engagement. A positive change to an organisational design will increase the value that an organisation can deliver to its customers. This is because, as the organisational design changes, the capabilities that go with the new model must be acquired and thus value will increase. Additionally, as the organisational design changes, and capabilities improve, customer engagement will increase that will, in turn, increase value. When value improves, customers are happier, engaged and buy more, which improves profitability.

The next section reviews the theories that anchor this study, one of which is the theory of organisational design. The service-dominant logic theory (which fortifies the concept of reciprocity and thus co-creation) and the theory of absorptive capacity (which describes an organisation's capacity to absorb new information) are also discussed.

2.4 Theories of Organisational Design, Service-Dominant Logic and Absorptive Capacity

In this section, the theoretical frameworks of Organisational Design (OD), Service-Dominant Logic (SDL) and Absorptive Capacity (ACAP) are examined. A theoretical framework is "an advanced outline of how a research should advance after interrogating key literature on the research under study" (Wotela, 2016). The function of a theoretical framework is to narrow the scope of the relevant data by focusing on particular variables and/or attributes and identifying the specific point of view (framework) that the researcher will take in evaluating and interpreting the data to be obtained, recognising the principles and variables as described, and building knowledge by validating or questioning theoretical assumptions (Claybaugh, 2020).

This section briefly details the description, development, initial intended purpose, the usefulness as well as the limitations of the aforesaid theories. The OD theory is about deciding the success of an organisation through defining and controlling how individuals (or teams or groups) operate together in such organisations. This theory was used to

answer research question 1. The SDL framework explains value creation and was used to answer to research question 2, while the ACAP is a theory that defines an organisation's ability to learn and use the knowledge effectively. This theory covered research question 3.

2.4.1 The Organisational Design Theory

The organisational design theory has its inception in the nineteenth (19th) century and is associated with the Industrial Revolution. The evolution of the concept of OD is credited to Tom Burns and GM Stalker. The theory has evolved through three different stages:

- 1900 to 1930s – this stage is known as the formal and bureaucratic stage where everything, including how people should act, was prescriptive.
- 1930s to 1970s – unlike the previous stage, this stage, known as the Natural System, positioned the human being as the centre of the organisation that was regarded as a collection of people who hold a shared interest in the sustainability of the system and naturally carry out organised collective actions in order to accomplish this goal. This stage emphasised informal relationships and a motivating, instead of a controlling, management style.
- The current stage, known as the open systems, emphasises the interaction of the organisation with the environment where the responsibility of management is to facilitate this interaction to find opportunities produced by the organisation's value network.

(Carus, 2013).

The organisational theory, the theoretical foundation of OD, outlines and illustrates how the environment works while OD, on the other hand, draws on this foundation to describe how the world could work (Burton & Obel, 2018). Thus, OD can be said to be forward looking. The theory of OD describes and recognises the nature, actions and efficacy of an organisation. Furthermore, OD is a normative science that suggests structures to improve productivity and effectiveness. It is a core determinant of the organisation's success and how individuals work together in these organisations (Burton & Obel, 2018). The OD theory is based on the notion that the design of the organisation is a crucial factor in deciding the success of the organisation through defining and

governing how individuals (or teams or groups) operate together in these organisations (or organisational networks) (Kenis & Raab, 2020).

OD thereby prescribes how an organisation can be configured to work successfully and efficiently. It is a comprehensive approach to aligning systems, procedures, governance, culture, employees, practices, and metrics to help organisations accomplish their purpose and plan that is a crucial element in deciding an organisation's success (Burton & Obel, 2018). As organisations are different and there is no single method of implementation, organisations cannot be equally efficient and effective. This presents the concept of contingency thinking, where the organisation should be structured to suit a specific situation not encountered before, such as the transformation to solutions for the Healthtech company (Burton & Obel, 2018). This theory then supports the research proposition 1 which states:

> *Adapting the organisational design to align to a solutions approach will enable successful transformation from product-orientation to solutions-orientation.*

2.4.2 The Service-Dominant Logic Framework

At the core of the SDL framework is the premise of reciprocity. The framework rests on the principle that, for humans to enhance their individual and social well-being, they exchange expertise and knowledge for the support they seek from others. If products are included in the trade, they are viewed as mechanisms for the provision of the service (Vargo & Lusch, 2006). Thus, the idea of SDL is that humans use their skills and competencies to benefit others and reciprocally benefit from the competencies and skills of others.

The concept of SDL was derived from the collapse of the traditional marketing dominant logic due to an evolving world view (Vargo & Lusch, 2004). The traditional dominant logic was based on the exchange of products or tangible goods, a logic that the marketing stream inherited from economics over a decade ago (Vargo & Lusch, 2006). SDL represents the view that services are more important in the economy than products, both in terms of value for the customer and because products themselves are only mechanisms that deliver value (Ford, 2011).

SDL was conceptualised by Marketing Professor, Stephen L. Vargo and the late Professor

Robert F. Lusch in 2004. This theory has since undergone numerous iterations, particularly from the founders themselves. SDL is based on the foundational principles (FPs) of the theory. The introduction of the FPs invited debate and dialogue that led to the revision, refinement and a further elaboration of the theory by the founders, which included the positions of other scholars (Vargo et al., 2010; Vargo & Lusch, 2008).

A notable critical review of the framework is from O'Shaughnessy & O'Shaughnessy (2009, p. 785). These authors are critical of a few areas in the framework, among others, the vague definition of "services" in Vargo and Lusch's (2004) publication. The authors note that Vargo and Lusch (2004) refer to services as "activities performed" rather than the traditional "functions performed" and conclude that the theory is logically unsound and regressive to the marketing profession in general. In a rebuttal, (Lusch & Vargo, 2011) refer to O'Shaughnessy and O'Shaughnessy's (2009) criticism as erroneous and stress that the construct is moving in the right direction, given the adjustments made based on feedback from other scholars. Vargo and Lusch (2008) admit, however, that their framework in earlier publications may have been misunderstood and misinterpreted, a limitation of this framework. The authors, nonetheless, address some of the misconceptions in many of their later publications.

As the framework continued to evolve, newer ideas have emerged, notably the idea of a "service ecosystem" (as seen in Figure 3) in order to completely unlock the dynamic existence of value co-creation. A service ecosystem is a system of "resource-integrating actors" where mutually-beneficial services are exchanged leading to the multiple levels of interaction as determinants of value creation (Vargo et al, 2017, p. 3).

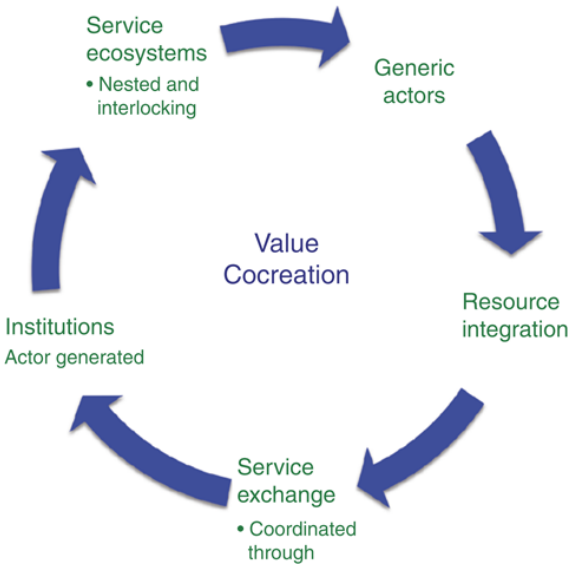

Figure 3: The SDL service eco-system

Source: Vargo & Lusch (2017, p. 49)

The proliferation of technology plays a critical role in the expansion of this ecosystem, according to Vargo and Lusch (2011). The authors argue that the service industry will grow due to its interconnectedness and its increased ability to communicate. The ability to know customers better will thus also increase the coordination between companies and, in the process, their customers will become more efficient (Vargo & Lusch, 2011).

Finally, Vargo and Lusch (2017) note that there is an opportunity for further research to apply SDL in other streams, such as cognitive computing and various other disciplines outside marketing. Specifically in transformational projects, the authors posit that the application of the SDL provides for new insights that have not been possible before and also gives an alternate viewpoint that can create new and insightful conceptual and practical innovations.

In summary, the SDL principle aims to explain the transformation of businesses from simply selling products to expanding their interconnected service solutions. It explains the mechanism of service transformation as it moves beyond the common goods' oriented view of value creation and enables the consumer experience to be incorporated into value creation practices (Clauß et al., 2014). It is in this regard that the SDL framework can be used to support the research proposition 2:

> *Adopting the concept of customer value co-creation will ensure the correct customer issues are appropriately addressed and value for the customer is realised.*

2.4.3 The Absorptive Capacity Construct

The ability of a company to constantly learn from its surroundings and, particularly its customers, is vital for organisational success. A particular division of learning that deals with how companies learn from their external environment is referred to as the absorptive capacity (ACAP) of the company (Birch-Jensen et al., 2020). The concept of absorptive capacity was coined in 1990 by a Professor of Economics and Management at Duke University, Dr Welsey M. Cohen, and a Professor of Corporate Strategy at the University of Pennsylvania, Dr Daniel A. Levinthal.

These pioneers' definition of ACAP is related to the company's ability to recognise the value of new knowledge, and to integrate and apply it for commercial purposes. This definition covers three dimensions: 1) the recognition of the value of new information; 2) the assimilation of the information; and 3) the application of this information to generate revenue. It is about a company's ability to integrate new knowledge into existing knowledge, which can be external or internal, among the company's employees and between departments. It is affirmed to be critical to the innovation capabilities of a firm. Cohen and Levinthal (1990) argue that prior knowledge and skill gives rise to creativity which, in turn, may lead to competitive advantage and profitability.

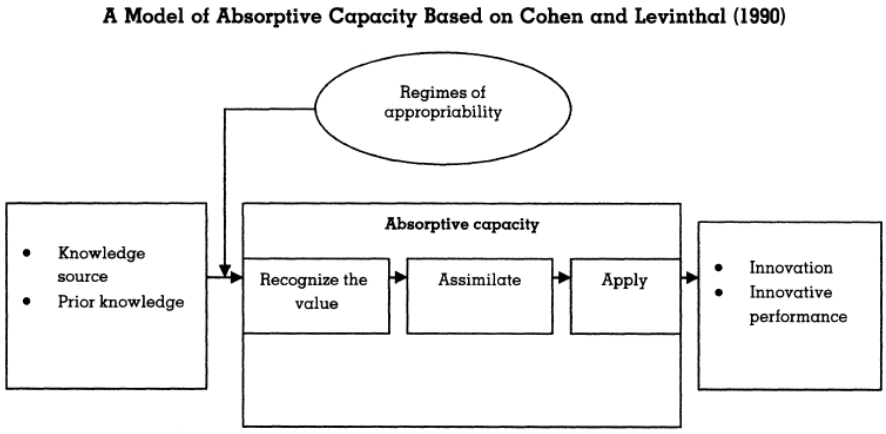

Figure 4: A model of absorptive capacity based on Cohen and Levinthal (1990)
Source: Todorova & Durisin (2007, p. 775)

At the lowest level, ACAP is applied at an individual level therefore an organisation's ACAP is dependent on the ACAP of individuals within the organisation. However, it

cannot simply be assumed that an organisation's ACAP is the sum of its employees' ACAP (Cohen & Levinthal, 1990). Moreover, the authors emphasise that diversity enables individuals to establish new connections and ties. They therefore promote the recruitment of diverse teams in order to include a variety of people working together and exposing themselves to new ways of looking at problems.

Whereas Cohen and Levinthal's (1990) first component in their model is the recognition of the value of knowledge, Zahra & George's (2002) reviewed and reconceptualised model suggests changes to this. In their reviewed model, they redefine ACAP as a group of processes and procedures in which organisations 1) acquire; 2) assimilate; 3) Transform; and 4) exploit knowledge to deliver dynamic capabilities. Dynamic capabilities, in the authors' model, enable the organisation to reconfigure its resources to respond to evolving customer demands, in order to gain and sustain competitive advantage. The authors' reformulation substantially extended the meaning and further defined it as being made up of two distinct absorption capacities: Potential APAC (PACAP) – what allows the organisation to be amenable to acquiring and assimilating external knowledge – and Realized APAC (RAPAC) – the ability of the organisation to exploit the knowledge that has been absorbed.

FIGURE 2
A Model of Absorptive Capacity Based on Zahra and George (2002: 192)

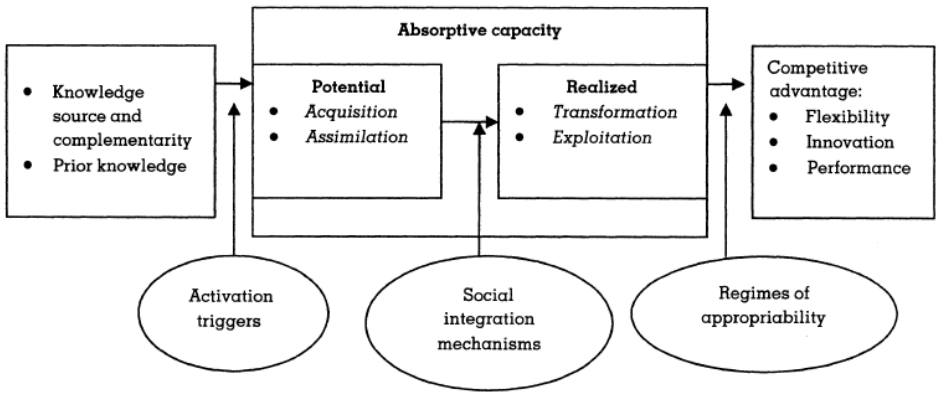

Figure 5: A Model of ACAP Based on Zahra and George (2002)
Source: Todorova & Durisin, 2007, p. 775)

Todorova & Durisin (2007) criticised Zahra and George's (2002) model. They reintroduced the original first part of the Cohen and Levinthal model – recognising the value of knowledge. Their contribution notes that transformation is not a step after

assimilation, but an alternate process. Their model also proposes that the difference between the theoretical absorption ability and the realised absorption capacity could no longer be preserved.

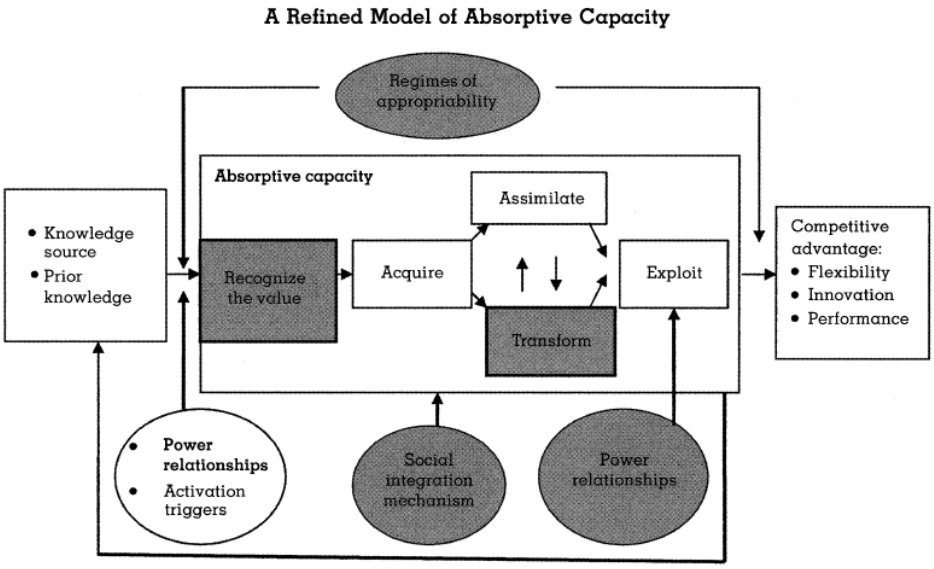

Figure 6: A Refined Model of ACAP

Source: Todorova & Durisin (2007, p. 776)

Other authors who have sought to add to the model since it was introduced, for instance, Van den Bosch et al. (1999), contend that the absorption potential should not be focused purely on previous experience, as initally suggested by Cohen and Levinthal, but rather on the corporate culture and other organisational capabilities as antecedents to the absorption capacity of the enterprise.

The Application of ACAP

ACAP has been studied and applied by many researchers since it was first introduced. Studies have ranged from R&D (Lin et al., 2002), which is the field the model was initially developed for, to human resources (Vinding, 2004). The theory has also been applied in different industries such as IT and Healthcare (Easterby-Smith et al., 2008).

In summary, although there have been deviations from the original model as proposed by Cohen and Levinthal (1990), the basics of the model still remain. This means that companies with a high degree of absorption capacity: 1) recognise the importance of new external information; 2) absorb; 3) assimilate or transform; and 4) leverage new external knowledge. As the ability to integrate new knowledge into existing knowledge which, in

turn, is critical to the capabilities of a firm, ACAP can be used to support proposition 3 which states:

> *Acquiring the right capabilities and competencies enable successful transformation to solutions-orientation.*

2.5 Summary of literature review

In this chapter, the current available literature relating to this study was reviewed. The chapter comprised four sections, with the intention to achieve the three objectives of understanding the research problem, identifying the knowledge gap and developing an interpretative framework for the research findings. Section 2.1 covered the aspects of the problem by reviewing the major root causes of the problem as well as the consequences. In Section 2.2, literature was studied in terms of the methods, data, findings, and conclusions of studies on the transformation to solutions. This was done to identify the knowledge gap in this area. Section 2.3 was about detailing the qualitative attributes associated with this research and section 2.4 discussed the frameworks of OD, SDL and ACAP, and then linked these to the study's research propositions that state:

> *RP1: Adapting the organisational design to align to a solutions approach will enable successful transformation from product-orientation to solutions-orientation.*
>
> *RP2: Adopting the concept of customer value co-creation will ensure the correct customer issues are appropriately addressed and value for the customer is realised.*
>
> *RP3: Acquiring the right capabilities and competencies enable successful transformation to solutions-orientation.*

The next chapter details the research strategy, design, procedure and methods that are applicable to this study, together with the reliability and validity measures.

3. RESEARCH STRATEGY, DESIGN, PROCEDURE AND METHODS

This chapter identifies and describes the research approach, the design, the procedure, and the methods that were employed in this research to collect, process and analyse empirical evidence. The chapter has three objectives: to identify and describe the research strategy (Section 3.1), the research design (Section 3.2), as well as the procedure and methods (Section 3.3). The chapter also describes the reliability and validity measures that this research applied to make it credible (Section 3.4) plus the technical and administrative limitations of the choices made (Section 3.5).

3.1 Research strategy

A research strategy, also known as a research paradigm or a research approach, is a plan of the direction the research will follow in answering the research questions. Bryman (2012, p. 35) describes a research strategy as a standard approach to conducting social research. The research strategy provides the overall research course, including the method by which the research is carried out, and assists the researcher in preparing, conducting and monitoring the research study (Johannesson & Perjons, 2014). Johannesson and Perjons (2014) further maintain that the research strategy is to be supplemented with research methods to direct the research work at a more comprehensive level, that is, the approach the research will follow. There are two such approaches, qualitative and quantitative (Bryman, 2012), however, a third cluster involving collecting both qualitative and quantitative data, called a mixed method, is also occasionally used in certain research studies (Creswell, 2013).

The qualitative research strategy was followed for this study. A qualitative strategy is used where an in-depth investigation, description and analysis of a phenomenon is carried out (Leedy et al., 2014). It is exploratory in nature and emphasises the use of words rather than numbers in the data collection and analysis stages. Creswell (2013) describes this strategy as an approach to investigate and interpret the significance that individuals or organisations assign to a social or human challenge. Creswell (2013) further describes the process of the research as including developing questions and techniques involving the collection of the data in the setting where the participants are, analysing the data using inductive methods and interpreting the meaning of the data collected. Bryman (2012)

describes the inductive process as the relationship between the research and the theory where general theories are produced from the actual research.

This strategy was appropriate for this research study for the following two reasons: firstly, the study was exploratory in nature and, secondly, the researcher sought to gain insights into the topic of solutions transformation from other literature as well as from documentation and the participants from the Healthtech company.

A qualitative research strategy was used as most of the research articles explore the transformation from product-orientation to solutions-orientation. This included the research study by Levihn and Levihn (2016) that examined the role and organisation of employees in a transformation mission from product-selling to solution-selling. The objective of their study was to examine ways to handle and coordinate current employees while launching a solution sales strategy. A qualitative method, adopting inductive analysis, was used in order to "develop reasonable and plausible insights into phenomena" in order to determine whether it was feasible to migrate existing sales employees in product sales to the solution sales, and whether it was feasible to combine the roles (Levihn & Levihn, 2016, p. 211). One advantage of applying this strategy for this research was that the authors were able to gain the necessary insights into whether the product-based and solution-based roles could be combined. From these insights, the authors were able to make recommendations on how employees should be organised when transforming to solutions.

Given that one of the objectives of this current study was to explore how the Healthtech company can change to solutions, the qualitative research strategy was beneficial in providing the researcher with the necessary insights into the current organisation and what the future organisation might look like.

3.2 Research design

A research design is described as a form of research, within the qualitative, quantitative and mixed-method strategies, that provides a clear direction path for the research sampling procedures (Creswell, 2013). It is a framework or a strategy that directs how the data are to be collected and analysed in order to solve the research problem. In addition, it lays out the general structure of the methods adopted to gather the data (Leedy & Ormrod, 2014). A research design is therefore a plan that clarifies how to collect the data

that will provide answers to the research question/s. There are five (5) generic research designs: Longitudinal design, cross-sectional design, case study, comparative design and experimental design. A single case study approach was best suited to achieve the objectives of this research study.

A case study is an in-depth study of an individual, company, program or event (Leedy & Ormrod, 2014). Case study research is engaged with the nature and complexity of a single case (Bryman, 2012). Case studies can be particularly useful for understanding more about a little known or poorly understood subject or scenario. It may also be necessary to examine the evolution, over time, of certain conditions, often as a result of a change or an intervention (Leedy & Ormrod, 2014). In the case of this research, a case study design was chosen to investigate methods used in the transformation to solutions in other studies that could be applied specifically to the Healthtech company.

In the journal article already referenced in section 3.1, the researchers studied a multinational company engaged in B2B sales that simultaneously launched solution-selling in seventeen (17) countries. In another study by Höber and Schaarschmidt (2017), the authors used the case study design and investigated a medium sized IT consulting company in Germany with the aim to explore whether and how the transition from being a service provider to a solution provider impacted the relationship between the company and the client. The rationale for using a case study design, according to Höber and Schaarschmidt (2017), is that transformation programs and, in particular, transformation to integrated solutions are often complex and best addressed in an exploratory case research.

As with the journal articles referenced above, the exploratory nature of this research, particularly within a single Healthtech company, expanded the knowledge around a complex subject within the case company and assisted in applying this knowledge towards the transformation journey.

3.3 Research procedure and methods

This section documents the actual procedure and the methods employed in this research to collect, collate, process, and analyse empirical evidence. A research procedure is a set of research-related tasks to be conducted in order to accomplish the goals of the analysis and to provide potential solutions to the problem, while a research method is a data

collection methodology that involves a specific instrument, such as a self-completion questionnaire, a structured interview schedule or a participant observation by which the researcher listens to and watches others (Bryman, 2012).

This section details the data and information collection instruments (Section 3.3.1); the target population and sampling of respondents (Section 3.3.2); the ethical considerations during the research process (Section 3.3.3); the data and information collection process and storage (Section 3.3.4); the data and information processing and analysis (Section 3.3.5); and the description of the respondents who provided empirical evidence for this research study (Section 3.3.6).

3.3.1 Research data and information collection instrument(s)

Data collection instruments are used to gather data from a specified sample to answer the research questions (Bryman, 2012). Data collection can be classified into two groups: qualitative and quantitative. Qualitative instruments collect data in the form of words, pictures, maps, etc. There are two categories of qualitative data instruments: field research, which includes participant observations, interviews and ethnography, and historical comparative research where data on events and conditions in the past and/or in different societies are examined (Neuman, 2014). In qualitative research, the researcher is the instrument for the data collection, which raises personal issues such as biases that may need to be clarified upfront (Creswell, 2013). In contrast, quantitative data collection is in numerical forms and uses instruments such as surveys, experiments and questionnaires. This research employed the qualitative method of collecting data in the form of semi-structured interviews.

In a semi-structured interview, a list of questions covering specific topics is detailed even though, during the interview, these questions may only provide a guide. Additionally, questions that follow from a response from the interviewee may be included at a later stage. This combination is similar to that adopted by Jaakkola and Hakanen (2013) where twenty-nine (29) in-depth interviews were done in addition to company meetings and workshop observations. The reason for this combination is to allow triangulation, which yields more reliable observations and a better interpretation of the phenomena being analysed, and increases the quality of the results (Jaakkola & Hakanen, 2013).

3.3.2 Research target population and selection of respondents

3.3.2.1 Research target population

A target population is a unique set of elements that will be researched and must be described in terms of components, geographical boundaries, and time (Leedy & Ormrod, 2015). Neuman (2014) describes a target population as a specific broad category from which the researcher draws a sample and to which the findings of the sample are generalised.

The target population selected for this study comprised the Healthtech company employees who work in support or interact with the sales departments. These are individuals who have an extensive knowledge of the health technology industry and have regular interactions with the Healthtech company's customers. The chosen population was selected as the participants were expected to provide comprehensive responses to answer the research questions. The gender and age of the population was not considered for this study.

3.3.2.2 Sampling or selecting respondents from the target population

A sample is described as a subset of the population to be studied (Leedy & Ormrod, 2015). The sample strategy adopted for this study was the purposive or judgemental sampling, which is used for special circumstances, according to Leedy and Ormrod (2014). It is used in exploratory testing or field research as it chooses cases with a particular objective in mind (Neuman, 2014). It is also known as non-probability sampling (Bryman, 2012). This sampling technique was specifically selected since the identified population was known to the researcher and could provide the researcher with the autonomy to select individuals who would have the information and observations needed to answer the research questions.

The sample population for this study included the Head of Solutions Transformation, The Head of Sales for Southern Africa, the Sales lead for Southern Africa, Key Account Managers for the different departments and the implementation project managers.

3.3.3 Ethical considerations when collecting research data

Ethical issues may occur at any stage during the research project – prior to the start of

the research, at the beginning of the research, at data collection stage, when data are being analysed or at the reporting, sharing and storing of the data (Creswell, 2013). According to Leedy and Ormrod (2014), ethical issues in research fall into one of four categories: protection from harm, voluntary and informed participation, the right to privacy as well as honesty with professional colleagues. To this, Bryman (2012) adds deception as a consideration.

Ethical clearance was obtained from the Wits Business School Ethical Committee prior to data collection. In addition, the researcher in this study obtained permission to conduct this research from the Healthtech company.

The ethical considerations specific to this study include the following:

Voluntary and informed participation

When the research includes the participation of people, they should be informed about the nature of the study and given the choice of whether to participate or not (Leedy & Ormrod, 2014). In this case, the researcher informed every participant of the nature of the study, the reasons for the study, what their role was in the study, as well as with whom the results of the study will be shared. The researcher requested specific consent for participation and to record the interview, from the participants prior to the interviews.

Right to privacy

In this context, the researcher must keep the essence and consistency of the output of the individual participants strictly confidential (Leedy & Ormrod, 2014). Given that the sample for this research was specific and participants may be easily identified by their titles, the researcher provided pseudonyms to guarantee the privacy of each participant. For electronic data with specific names of participants, the researcher has ensured that this information is password protected and stored within technology that requires two-factor authentication.

Honesty with professional colleagues

Researchers must report their findings completely and honestly, without distortions or deliberately misleading people about their findings. The researcher must also not invent data to support or justify a particular hypothesis, regardless of the nobility of the fabrication, to avoid fraud (Leedy et al., 2014).

To counter this, the researcher recorded all interviews, with permission from the participants. The interviews were then transcribed. Given that the interviews were conducted electronically, the transcriber came across occasional distortions. In these cases, the researcher reconfirmed what the interviewees said and duly corrected the transcription. Ideas and thoughts were fully acknowledged and attributed to the correct interviewee/s.

Deception

Deception occurs when a research is misrepresented or the results are presented in a dishonest manner (Bryman, 2012). According to Leedy and Ormrod (2014), the primary duty of researchers is to act openly, disclosing their results completely and truthfully, without distorting what they have done or intentionally misleading people about the nature of their findings.

The researcher confirms that the results were presented truthfully and that the study will be shared with the relevant people within the Healthtech company.

3.3.4 Research data and information collection process

Data collection is the method of collecting and evaluating data on variables to analyse the results and answer the research questions. The data collection process includes defining the research boundaries, gathering information through unstructured or semi-structured observations and interviews, documentation, and visual materials, as well as creating a process for capturing information (Creswell, 2013).

This research employed the semi-structured interviews as well as a study of company documentation. This combination was similar to the one adopted by Jaakkola and Hakanen (2013) where twenty-nine (29) in-depth interviews were done in addition to company meetings and workshop observations. The reason for this combination was to

allow triangulation, which yields more reliable observations and a better interpretation of the phenomena being analysed, and increases the quality of the results (Jaakkola & Hakanen, 2013). Similarly, the benefit for this research was a deepened understanding of the phenomenon studied.

The data collected for this study were transcribed and saved in a password protected laptop. Additionally, the data was stored in the company cloud, which is behind the firewall and protected via two-factor authentication.

3.3.5 Research data and information processing and analysis

3.3.5.1 Research data and information processing

Kumar (2011) states that the method of data processing in a qualitative study depends on how the findings will be communicated. The author lists three ways in which the findings can be presented: 1) Composing a storyline to explain the scenario or event; 2) Defining the key concepts verbatim from the transcripts of the interviews; and 3) Quantifying the main themes from the transcripts. Kumar (2011) describes data processing as a step-by-step process to verify, organise, transform and extract the data for further future use. The steps are described below:

Step 1: Raw data editing – ensures that the raw data are cleaned, spelling errors are removed, and data are complete.

Step 2: Coding – identify the main themes emerging from the interviews.

Step 3: Analysis – described in the next section.

The steps as described above are straight-forward and were applied to this research. The raw data from the face-to-face interviews were transcribed and uploaded into a coding tool called NVivo for coding. The emerging themes were compared with the manual coding that the researcher conducted on Microsoft Excel and the most relevant themes were selected and used in the analysis and presentation of the data. As such, an inductive approach to analysis was adopted for this study.

3.3.5.2 Research data and information analysis

According to Bryman (2012), it is at the data analysis stage that the qualitative data are reduced into smaller pieces so they can be readily comprehended and used. The methods of data analysis include cluster analysis, content analysis and thematic analysis.

Thematic analysis is the method of detecting patterns or themes in qualitative data (Maguire & Delahunt, 2017). Thematic data analysis, according to Bryman (2012), begins with the transcription of recorded interviews, followed by reducing the data into smaller portions where themes can be identified and analysed.

Thematic analysis, as in other similar studies, was used for this research. Following the verbatim transcription of the interviews, a combination of manual coding using Microsoft Excel and a software tool called NVivo was used to identify themes.

3.3.6 Description of the research respondents

Purposive sampling was the selection method chosen for this research. This means that the researcher selected the sample that was deemed appropriate to answer the research questions. The participants in this case were colleagues of the researcher and are described below:

Demographic data: Age and gender were deemed immaterial for this research.

Key attributes: The participants were in the employ of the Health technology company for 18 months or more.

Role: The respondents were in the sales team or supported the sales team.

The aliases used for the sales team are IV, followed by a number to denote each participant. The numbers are in ascending order, i.e., number 1 for the first interviewee.

3.4 Research strengths – reliability and validity measures applied

Reliability and validity are concepts that determine the truthfulness, credibility or believability of a concept or research result (Neuman, 2014). Reliability is concerned with dependability and consistency, denoting that reliable results are dependable, consistent and can be trusted (Neuman, 2014). In a qualitative research, reliability and validity can

be evaluated using credibility, confirmability, dependability and transferability. Credibility expresses the believability of the findings, while confirmability speaks to the level of the researcher's objectivity in the research process. Dependability denotes the consistency of the findings in repeat studies and transferability refers to the applicability of the study in other settings (Bryman, 2012).

The credibility of this research analysis can be deemed to be sound. The sample represented different levels within the case company. The data collection instrument was prepared prior to conducting the interviews and the interviews were recorded and transcribed verbatim. The researcher's analysis of the findings was solely based on the transcribed interviews and every step of the coding to identify themes was documented and can be audited. The confirmability of the research can also be deemed as sound.

While the dependability of the research may depend on the fixedness of the research settings, the study can be transferable if applied in a context and level of the Healthtech company's solutions transformation position at the time of the research.

3.5 Research weaknesses – technical and administrative limitations

This section discusses the technical and administrative limitations pertaining to this study.

Technical limitations

- The research design selected for this study was a case study. Thus, the research was limited to the Healthtech company therefore the findings cannot be generalised.
- Population and Sampling: Given that the sample technique chosen was purposive sampling, which allowed the researcher to hand-pick respondents, the sample was not sufficient for conclusive use by other researchers.
- Procedure and methods: The semi-structured method of data collection means that there may be personal influences and biases from the participants which may not have been fully eliminated.
- The subject under study was fairly new for the participants as the transformation project was only at the inception stage. Therefore, the researcher may not obtain rich responses as anticipated.

Administrative limitations

- No administrative limitations were found.

3.6 Summary

The focus of this chapter was to present details regarding the methodology used in this study. In the first instance, the chapter focused on describing the research strategy for this research, justifying the choice with examples of similar studies carried out in the past. This was followed by descriptions of the research design and methods, including the data collection techniques and instruments, the ethical considerations for the data collection, the data analysis methods, as well as the selected target population relevant for the study. Finally, the chapter presented the reliability and validity methods applied and the limitations of the study that could form the basis for future research. The next chapter leads with a brief overview of the organisational structure of the Healthtech company, followed by a presentation of the research results.

4. PRESENTATION OF RESEARCH RESULTS

This chapter presents the research findings from the semi-structured interviews carried out to address the objectives of this study. The chapter is structured in sections that address each of the research questions posed. To provide context, this chapter begins with a brief account of the structure of the case company, the context of the African market from the lens of the company through the participating interviewees, which is then followed by the presentation of the results derived from the interviews. The results are presented through themes identified from the analysis process and, where relevant, in accordance with the literature review as well as information collected from company documentation. The views of the participants are expressed in their own terms and phrases and, in cases where the views are the same, the researcher has specifically stated so.

Method of Analysis

The interviews were first transcribed and reviewed. The interviews were then uploaded into the NVivo tool for first level coding and provision of themes (see Figure 7).

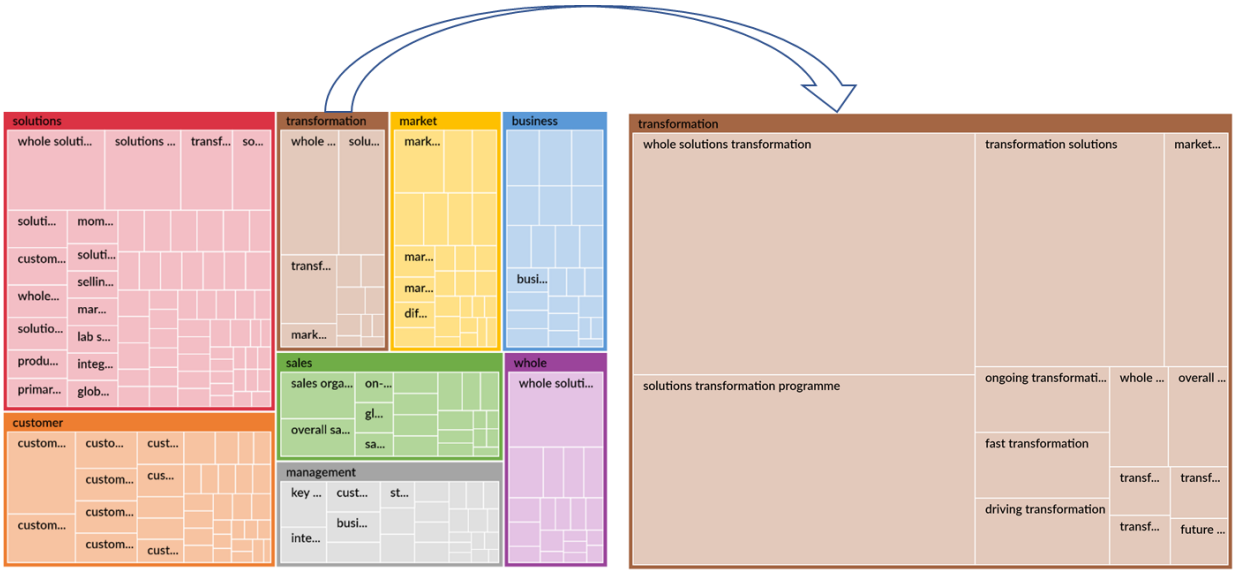

Figure 7: NVivo level 1 coding

Source: NVivo

Questions were removed from the transcribed interviews that were uploaded into NVivo to ensure only the voices of the participants were analysed. The ensuing information formed this first level analysis and was followed by a second level manual analysis of the

contents of the interviews. The themes identified were compared with the output themes from NVivo (see Figure 8 below). Certain NVivo themes were renamed to correspond with the manual themes, and some were discarded as they were deemed irrelevant. The themes were thus grouped and allocated and into the categories that related to the research proposition, named appropriately, and discussed as such.

12	Because right now it's bad and we're getting it only after the fact. After, when the account manager goes back to sell the next box, then he gets told, remember, the monitor that you delivered last time was not really up to scratch or was missing this and that.		Challenges of current method
13	So, somebody that understand the customer workflow. So, customer workflow in this instance we're talking in the clinical space. So, somebody that understand the workflow in the hospital. And then this person could be a biomedical engineer that has worked in a hospital or could be a radiographer or a nurse, somebody that just has worked, understand the hospital setting.		Competencies
14	Second thing is this person must understand our products. They must have a good understanding of our solutions as Philips products.		Competencies
15	Second thing is this person must understand our products. They must have a good understanding of our solutions as Philips products.		Competencies
16	an account manager who sells to a particular hospital every time, that person should never be caught off guard when a customer has to replace a monitor in an I-C-U only to find out the next version of the available model is not compatible with the rest of the install-base - **lifecycle management**		Competencies
17	the whole strategy is about approach and solve customers' problems holistically in a way that is more mutually beneficial.		Solutions Strategy/Holistic customer problems resolution
18	So, step away from the transactional relationships that we have, so let the relationship with the customer be more long-term, that's more a solutions approach.		Customer relationships

Figure 8: Sample Excel coding

Source: Author's own

The interviews commenced with background questions to gauge the level of understanding of the subject matter and the comfort of each interviewee. The background questions covered the objectives of the solutions transformation program, the solutions strategy as well as the African market (the context of the study), and opportunities and challenges in this market. These are presented first and subsequently the results under each research proposition.

The participants were selected to ensure representation across all departments. Table 1 displays the list of participants, their job titles, which include the respective cluster they work in, and their level in within the Healthtech company.

Table 1: Details of participants

Participant	Nom de Plum	Job Title
Participant 1	IV1	Health Sytems Channel Manager
Participant 2	IV2	Solutions Program Deployment Lead
Participant 3	IV3	Program Deployment Lead
Participant 4	IV4	Business Market Sales Leader - IGT
Participant 5	IV5	Indirect Channel Manager & Solutions Lead
Participant 6	IV6	Health Sytems Training & Capability Manager
Participant 7	IV7	Senior Account Manager - Health Systems Sales
Participant 8	IV8	Business Development & Sales Manager
Participant 9	IV9	Clinical Applications Specialist
Participant 10	IV10	Key Account Manager - Health Systems Sales
Participant 11	IV11	SRC Sales and Marketing Manager

Source: Author's own

4.1 Solutions transformation background questions

The first grouping of questions posed to all participants was a description, in their own words, of the solutions transformation program and why the program was initiated at the Healthtech company. The purpose was to ensure that all participants have the same level of knowledge and understanding of the program.

4.1.1 Participants' understanding of the company's solutions transformation program

All participants demonstrated an understanding and appreciation of solutions and the transformation program and described it as the company shifting from a box-focused approach to a more consultancy or partner-based approach that will solve the customers' holistic problems. Participant IV2 further offered the understanding below:

> *"So, we will go into a hospital and, instead of saying 'we are selling an MRI', we'll say 'tell us what your most pressing concern is today?' And then, we would then come back and look at all our capabilities and put together a mix of solutions or softwares [sic] or services or products that can really help this customer get an answer to the issue that they had."*

The responses to the "why" question included the pressure to become a significant role player in the health technology industry (IV3), the need to move away from a commoditised market (IV3), the need to serve customers better and provide better value

(IV1), building and cementing better relationships with customers (IV6, IV9) and plugging in customer gaps in areas such as resources (IV8).

4.1.2 Participants' understanding of the company's solutions transformation strategy and objectives

The line of questioning moved on to the objectives of the program for the African market, the company's solutions strategy and the participants' roles in the transformation. Although the transformation program is well under way, most participants admitted that they were not clear about their roles in the program and could not clearly articulate the transformation objectives and strategy. Only three participants (IV3, IV2 and IV4) could somewhat articulate their understanding of how the transformation to solutions fits into the overall Healthtech company's strategy:

> *"Everything we do in our strategy is designed around those four pillars which we call, or is termed, the Quadruple Aim of Health. And, ultimately, to feed those pillars in an effective way and to produce the change and transformation that health needs, solutions is a core requirement to achieve that objective."*

IV4's articulation lined up with IV2's articulation that the strategy is to drive the full healthcare journey along the health continuum.

The background questions provided a good basis to measure the level of understanding of each participant for the rest of the questions.

4.1.3 Findings from company documentation

The researcher surveyed the Healthtech company's internal and external online material. From the investigation conducted, the researcher gleaned information on the solutions strategy, the objectives of the program as well as the details on how the company aims to define value propositions for customers. The company's strategic focus remains to improve people's lives along the health continuum. With the ambition to become a solution-oriented company, the new strategic statement was articulated as follows:

> *"As we pursue our goal of improving the lives of 2.5 billion people a year by 2030, our ambition is to lead in key markets along the health continuum. How? Through solutions that help our customers deliver value-based care and help people take better care of their*

health at every stage of life."

The offer to customers is "easy-to-use products, tailored solutions, frictionless processes, transparent communications, straightforward support, and superior outcomes" with a focus on propositions that address customer needs and drive value along the quadruple aim. The company aims to tailor the customer value proposition around key personas and themes. The company therefore aims to differentiate itself from competitors by providing customers and healthcare professionals with connected products and services that improve people's health and well-being. This, the company aims to do by teaming up

> *"with selected care providers through strategic partnerships to innovate and transform the way care is delivered. We will actively listen closely to our customers' needs and together co-create solutions that help our customers to deliver on the Quadruple Aim".*

4.2 Organisational design for successful transformation to a solution-oriented company

In a bid to address the question of the changes that are required to the organisational design of the Healthtech company to becoming solutions-oriented, questions were asked relating to the overall company, the sales and marketing and the back-end organisational designs. Questions addressing the behaviours and cultures were also posed and the themes correspond to this line of questioning.

4.2.1 Organisational design

A question was posed to the participants to obtain their views on whether the current overall and sales organisation were able to support the transformation and the ambition to become a solutions company. This question was followed by one eliciting their opinions on what should change.

The responses to this question were varied. Most participants were uncertain or responded with *"we are getting there"* (IV1, IV6) and *"there is more to do"* (IV2, IV11) and *"it never is"* (IV3). Three participants responded positively however, two of them used the words "I think" when responding, indicating uncertainty. Only two participants responded with an outright "no". Despite the varied responses, there was consensus

among the participants that one of the main concerns affecting the organisation, particularly the sales organisation, is the silo mentality and the business unit (BU) focus of the salespeople.

IV4 summed this sentiment up as follows:

> *"So, we have the capabilities and the knowledge, but we are not organised this way. So, we are fully organised pure on modality, make your quarterly revenue, because that's what we're asking you to do. So, we are very, very short-term organised while all these things are long term."*

IV7 added:

> *"… I found the organisation very business unit/silo driven … when you're trying to negotiate a multimodality deal across the different business units, I found the business units are very focused on their own outcomes and their own KPIs."*

Although there was recognition among participants that there had to be a change in the way the company was organised, this was recognised as being a more long-term strategy as approximately two thirds of the company's revenue will continue coming from traditional business, according to IV2.

IV5 added:

> *"Yes, we will have to make a few design changes into the organisation, but it will not be a drastic change, all of a sudden, whereby both our employees but also our customers will say 'I don't recognise the company anymore'."*

There was also recognition that the company structure is complex making this a barrier for moving to solutions. IV7 criticised the complex matrix, double reporting and decision-making structure, saying that she found it frustrating to find a solution as a result of having to conduct many internal negotiations with various business units.

IV6 provided an observation regarding communication that cascades to the sales team. She indicated that there is a disconnect between the solutions team and the BUs and suggested that one way to plug the communications gap is to

> *"involve our account managers and our business line specialists more in the strategy of where*

we are going, what is their role to play, and then also look at building their knowledge up step by step."

There was no consensus on whether there should be a specific solutions team created. IV3 believed that the globally-defined structures should be adopted for the market, while IV8 emphasised that there should be a solutions team specifically for the African market, given its complexity. IV2 favoured the creation of multidisciplinary centres of excellence (COE) where back-end and supporting functions could be pulled into the solutions mix. He further suggested that communities of practice (COPs) should also be established to ensure the sharing of best practices among functional teams.

Regarding the back-end functions, there was consensus that these functions play a critical role in supporting the sales organisation and that they may need to be transformed as with the sales organisation:

"I think every supporting function in itself has to transform on the first hand but also has to support the overall solutions transformation, and it's just a question of how well they understand the needs, how well they are in tune with the needs of the core business, and how well they are aligning to support that strategy" IV2.

This participant further stressed that it is crucial that they be part of the COEs.

IV1 indicated that it is essential that back-end functions be included to go through solutions training and be part of the overall transformation, including incentive structures:

"I don't even think that there's such a thing called incentive scheme for those people. So, everybody needs to be having the same sort of goal. They need to know the impact that they have, that them not processing an order has on the entire chain."

The rest of the participants agreed that these functions need to be integrated into the solutions sales teams to fully understand the customers' needs.

4.2.2 Behaviours and cultures

All participants were asked about the cultures and behaviours they believe do not support the transformation well. This was followed by a question asking what participants thought were the aspects within the company that support solution selling. Again, this question

elicited differing responses. Some participants cited the Healthtech company's organisational behaviours of "Customer First" and "Team up to win".

What emerged from these questions was that employee mindset changes, from being individually and internally focused to being outwardly focused and putting the customer first, were the biggest challenges the company faced. IV5 stated that changing the mindset was not straightforward, particularly where organisational behaviours have been entrenched for many years. IV2 specifically cited the team collaboration mindset, and a consultative mindset for all salespeople. A consultative mindset, he added, asks "why", and encourages listening. Moreover, adopting a consultative mindset will assist in making strides towards understanding the customers' holistic challenges, he stated.

For IV4, a mindset change is simply a matter of the willingness of the individual to step outside their comfort zones. He further mentioned that

> *"everyone is stuck in one box and everybody doing whatever they are told in their own box, ... think differently, [be] able and willing to do that, and I think there is just not enough people capable doing this."*

To assist in accelerating the process of changing mindsets, IV1 suggested that one of the factors to be considered was a review of the compensation and incentive structures of the teams. Whereas, at the time of the interview, the sales organisation incentivised individuals on the number of "boxes dropped" at customers, the company should, in future, opt to link personal KPIs to the solutions KPIs.

> *"So, everybody needs to be having the same sort of goal. They need to know the impact that they have, that them not processing an order has on the entire chain. So, I think, when we get to a point where we say the incentive for everybody is centred around this thing being delivered, then it's everybody's responsibility to ensure that it's done at the end of the day."*

This view was echoed by several other participants such as IV2, IV8 and IV5.

All participants felt that the company was doing particularly well on training. Some, such as IV1, IV3 and IV6, declared that they were undergoing solutions training for the transformation to solutions.

There were no specific comments on the culture of the company and whether it supports

the transformation. However, from the company intranet, the CEO of the company said:

> *"Evidently a company culture is not something you declare: it's ultimately the consequence of a whole series of behaviours and actions; how you role-model and uphold values; who is promoted; who is released."*

The company documents review revealed that the company has five corporate behaviours that every employee has to abide by. The behaviours are attached to every employee's KPI, and a fundamental one, which has become part of the crucial solutions messaging, and one that is reiterated at every communique is "Customer First". The activities of all employees, front and back-end, are expected to contribute to the end customer. "Team up to win" is another notable one, which also contributes to the solutions messaging.

4.3 Addressing customer problems and deriving value from joint-innovation and customer co-creation

This research question aimed to investigate how the Healthtech company can employ customer value co-creation to appropriately address customer problems and ensure that value is derived for both the customer and the company. The line of questioning followed for this research question sought to discover:

- The company's value proposition and whether, with the move to become a solutions-oriented company, this is still valid or not;
- The customer value co-creation and whether the company employs this strategy or not and;
- Whether solutions can produce measurable value to customer pains and how this value can be measured.

4.3.1 Participants' understanding of the company's customer value proposition (CVP)

Most participants could not articulate the company's value proposition. In fact, three participants responded by asking what was meant by "customer value proposition". For those participants who attempted to answer the question, their responses varied and there was no clear articulation of the actual value proposition.

IV3 indicated that the current value proposition does not change with the move to

solutions:

> *"Our value proposition remains to improve people's lives and that's a vision. It's not really a proposition, it's a vision."*

IV3 continued to provide interesting information about a new approach towards defining value propositions for different personas within the customer base:

> *"We're defining different personas within the healthcare spectrum because the healthcare spectrum is so vast. So, who are the personas that we, as a company, perceive to be the key elements we interact with? And that goes from your specialists, being your radiologists, your cardiologists, etcetera, to your hospital groups, to your government sort of Ministry of Health, Ministry of Finance even, and as well as to the C-suite that you find in big hospital groups – your CIOs, your CEOs, your CMOs. We're trying to define a value proposition per persona. So, there is an approach to the CIO, there is an approach to the CMO, there is an approach to the chief nursing officer, there is an approach to an MEC, there's an approach to a Minister of Health.*
>
> *"If we talk about the chief medical officer, then we're saying we know it's about a reduced patient stay and effectiveness of process and minimally invasive procedures. So, we talk the language per persona, and we define the bigger proposition that talks around the care cycle that hopefully resonates with that persona. So, that's kind of how we're positioning the value proposition."*

IV4 likewise attempted to answer this question with the following response:

> *"I think the value proposition we have now, and since years already, I think it's … I still like our overall global vision in reaching out to two-point-five billion [lives] by 2030, I think … and underlying on this and addressing four hundred million people, I would say, in the underserved areas. That is for me, my north star so to speak, where everything I do is linked to that."*

Using the same words as IV3, he indicated that this is a vision and should not be altered as implementing solutions should not change the "north star".

In contrast to the above views, IV5 stated:

"So, I think the value proposition to our customers, I think, are drastically changing. So, normally you could see that Philips would offer a product and they would explain to the customer all the goodies of our product and then mention a price and then say: 'is this what you need?'

"And then the customer says 'but I need much more, what about the financing? What about my building? What about my other areas? I have a problem with the workflow, I have a problem with staff retention', etcetera, etcetera. So, that whole solutions thing is more about let's understand the customers' needs not only from a product view but also from the total actual needs of a customer ... And I think that proposition becomes much more a real tangible proposition to a customer in the total needs instead of just focusing on the products."

When responding to this question, IV8 stated:

"I'll say it's still more a slogan than the real value proposition that you believe in. Because I'm not sure if we're able actually to close all the dots in the value proposition that we see in the customer … do we have all the components that should go to that together? I still doubt that we do have it, to close that loop of the value proposition that we might pitch. We have a good idea of what might be required, but do you really have the full solution to close that loop of the value proposition we're talking about optimally? I think it's something that we'll continue building and hopefully get there."

4.3.2 Customer value co-creation

Once again, there was an assortment of responses to this question. Although all the participants understood customer value-co-creation, there were indications that this happens in small measures throughout the company.

IV1, IV2, IV3, IV5 and IV8 provided examples of where this has occurred within the company:

"So, we are doing it in different ways. One of the ways that we're doing it is more on a commercial level. To say you want these products, but your biggest hurdle is commercially, you don't have the initial capital outlay, what can you afford? What if we were to structure it like this? That's also part of the co-creation. So, we're co-creating the commercial model that works for the end customer" (IV1).

"I definitely know for sure there's some large hospitals where we are collaborating to develop new … not just even new solutions but, if you look at our innovation function, they're working quite closely with a couple of hospitals in the MRI space, for example, and together they are really coming up with the next level of MRIs, and that's really based on clinical feedback and clinicians really coming into our process and supporting that. But potentially, it's an area that would definitely need to improve" (IV2).

"We try and do it a little bit locally, but it's done in a very big way at our idea-to-market cycle. So, at the idea phase and ideation phase, that's a very big component that Philips builds in and I think that's also part of our success. So, if you take the Azurion Cath Lab as an example, of one of our most successful launches … that product took, I think, seven years to come to market, and a big part of it were customer circles and customer involvement in terms of the creation and even the design of the product. And the outcome of that … it's a particular good example because the outcome of that Azurion, what was game changing about it and why we've dominated. … South Africa, the last two/three years, we've taken easily between 60 and 70 percent of the market with that product which is a huge, huge percentage, and the reason for it is that it talks to the user of the equipment" (IV4).

"We do have these kind of co-create workshops…. I had a few with our customers recently for Uganda but also for Tanzania whereby we really dedicated some couple of hours together to understanding each other's needs very well, and it's very much appreciated by our customers, I can see that. I can see that those customers are really … they say, 'oh, wow, Philips really wants to understand us very well before they just come with products. And quite often you don't even mention the name of the products, it's more about design altogether which you'll develop altogether" (IV5).

"We do, in certain projects, definitely, but I'll say, most of the time, … we just go with the idea that the customer comes with and find a way around on, say, we comply or not comply" (IV8).

Other participants, such as IV7 and IV8, indicated that, though it happens in the company, they are yet to be part of any co-creation workshops:

"I know there are a lot of co-create workshops, and we've suggested it often to our customers. I haven't actually been in one with a customer, which would be nice."

4.3.3 Value measurement

Responses to whether solutions can produce measurable value to customer pains were a resounding "yes" from all participants. Some of the biggest customer pains included:

- **Market tailoring** – *"And because we're a premium brand, we come up with high-end stuff with fancy features that nobody needs, that nobody ever asked for, or at least in our market"* (IV1).
- **Pricing and financial constraints** – *"Our customers' perception is that we are too overpriced. But mainly because we have products that we think are premium products and … because we've put so much R&D and effort into them, but the customers feels 'but who asked for it?'"* (IV1). This pain was echoed by IV6, IV9 and IV11.
- **Shortage of clinical specialists** – *"… if you take that north part and South Africa out, essentially, there is no decent cardiac care in Africa"* IV7 described this as skills shortage – "*Skills, the shortage of skills, definitely the biggest pain."*
- **Product after sales service** – *"So, buying equipment is one but getting it maintained properly and properly working for an X number of years is quite often a big challenge for them. If you go to many sub-Saharan African hospitals, they have rooms full of unused, broken-down equipment, quite often very new equipment, and that is due to all kinds of very, actually, basic issues, because the equipment was procured but was procured without the installation or was procured without the knowledge of either as representative in that country who could install and/or repair"* IV1.

Most participants believed that implementing solutions will resolve the customer pains and, in so doing, provide measurable value for customers:

> *"… then you have the other side or the rest of the continent where it's really a price thing. It's about who has the cheaper product. if you approach them on that, for a premium brand like us, we will always lose to them. But premium brands that win in those are the ones that go the solutions approach because a solution approach then takes away the price conversation easily because you demonstrate value to the customer long-term, you're even able to come to the customer with better payment or commercial models because it also includes an element into it. And that takes away the worry of who's the cheapest. It's about who can bring me value"* (IV1).

"Absolutely. Philips cannot compete on a box product and we cannot compete pricewise, so we try to sell a bigger value story. We try [to] talk more at executive level, the impact on the operation, the return on investment, meeting the KPIs. We talk about the change management process, the consultancy, the design, the turnkey. So, we do talk on the larger-scale competencies rather than just talking about the specification and the price of certain solution. So, just as an example, if we're selling an MRI and we're talking to a CFO, we will say to the CFO: 'with this technology, you can scan twice as fast, that's a reimbursement of two patients per day, that's 24 thousand rand a day extra that you can make, and translate that into a value per annum' and then we can come to them and say 'if you utilise your assets properly or if you change the way your staff work, you have one radiographer putting the patient on the table, one in the exam room, then we have seen how you can improve your product, your workflow" (IV7).

"And I spoke also about clinical decision-making and then also the workflow analysis. It becomes easier. Also, on the workflow analysis, I want to mention, like I said earlier, to say if the patient complicates from any other ward or any other hospital, easily for them to just transfer the patient paperlessly" (IV9).

4.4 RP3 – Capabilities and competencies required for successful transformation to solution-orientation

The line of questions in this section sought to get a view of the company's capabilities and those that are required to be a solutions company.

4.4.1 Findings from company documentation

Srivastava et al. (2013) argue that sustainable cost leadership, differentiation and focus strategies, which are the cornerstones of sustainable competitive advantage, can be generated through a company's resources and capabilities being valuable (the company's ability to swiftly react to external forces of opportunities and threats), rare (not readily available to competitors) and inimitable (cannot be easily imitated by competitors and not readily available to competitors). This led the researcher to embark on a quest to discover the Healthtech company's current resources and capabilities from internal documentation. These are duly summarised in the VRIO analysis as per Table 2 below:

Table 2: The Healthtech company's VRIO analysis

	V	R	I	O	
Brand – strong and recognizable with over 100 years in existence	✓	✓	✓	✓	Sustainable Competitive Advantage
Financial Resources – support mergers and acquisitions	✓	✓	✓	✓	Sustainable Competitive Advantage
Global Presence – operations in all continents – better distribution and customer reach	✓	✓		✓	Temporary Competitive Advantage
Product Portfolio – award-winning leaders with strong experience in the continent	✓	✓	✓		Temporary Competitive Advantage
Innovative use of Technology –BCG's Top 50 world's innovative company and most innovative medical technology company	✓	✓	✓		Temporary Competitive Advantage
Human Capital – 80000 highly qualified and well trained	✓			✓	Competitive Parity
Africa Footprint – direct operations in 7 countries. Indirect operations in 39 countries - better distribution and customer reach	✓	✓		✓	Temporary Competitive Advantage
Organisational – customer-focused corporate culture and behaviors	✓	✓	✓	✓	Sustainable Competitive Advantage
Cutting-edge system, processes and patents	✓	✓	✓		Temporary Competitive Advantage

Source: Author's own

The VRIO analysis conducted indicates a sustainable competitive advantage in the brand and its financial and organisational capabilities. The company's global footprint, including Africa, its systems, processes and patents, its product portfolio and innovation resources as well its use of innovation are a source of temporary competitive advantage, while the company achieves competitive parity on its human capital.

4.4.2 The importance of capabilities and competencies

The question on capabilities and competencies was prompted by the fact that research points to a need for companies that are transforming to solutions to develop or acquire the right capabilities to enable this transformation (Ceci & Masini, 2013; Davies et al., 2007; Levihn & Levihn, 2016).

4.4.2.1 Human capabilities and competencies

The responses educed from this question focused mainly on the human capabilities and

the skills that the participants felt the Healthtech company lacks and will require in order to become a successful solutions-oriented company.

One of the key capabilities cited by two participants is that of a business solutions architect. When explaining what this role pertains to, IV1 stated:

> *"So, if there's a tender or if there's a specific deal that we're working on, he [sic] (the business solutions architect) looks at it in a more holistic [way], to say commercially 'this is the impact from a margin point of view. If we go for this deal, this is how much we're gonna make' but then, holistically, from a service point of view, this is the impact and then beyond that, what other opportunities will this particular deal open?"*

IV1 explained that the incumbents of this role would be people who understand the customers' workflow in a hospital and how everything fits together. This is why the Healthtech company usually headhunts clinicians. IV10 concurred with this view and added that a solutions architect is particularly valuable in a dynamic market such as Africa.

A second key capability, determined to be crucial by participants, was business consulting capabilities. As described by IV5, these capabilities are fundamental to understanding the customer's business and problems and thus allow the company to offer appropriate solutions to addressing these specific problems. IV8 supplemented this with the notion that a business consultant usually possesses a *"deep understanding of the market"*, which is imperative for the work they will carry out. IV8 added that a good understanding of the company's product is just as important as offering the right advice to address the customer's needs. This was similarly confirmed by IV2 and IV3 as per the quotes below:

> *"… so, we want you to become a consultative seller or trusted advisor, but then you have to be trained with the right skills, so we have trainings around solutions selling."*

> *"… not only do you need to know your product well, you need to know how to integrate into the environment; you need to know how it sits as part of this value chain; you need to know how you communicate the high-level benefits and the seamless flow of that product within that solution. So, it requires people that can grasp this and become very proficient in their message."*

Project management was another capability cited as important, specifically by IV9 who

stated: *"an account manager goes and drops [the product] on site and then he gets a customer acceptance certificate and then the sale is closed."* IV9 added that a project manager will manage the entire chain, from the point of getting the PO (purchase order), to tracking the order, to overseeing the implementation and to measuring the customer's satisfaction via an NPS (Net Promoter Score), and finally, ensuring that the after sales contracts are in place.

The product lifecycle management (PLCM) was the last major capability that the participants felt should be developed to enable successful transformation as illustrated in the quote below by IV1:

> *"An account manager who sells to a particular hospital every time, that person (KAM) should never be caught off guard when a customer has to replace a monitor in an ICU only to find out the next version of the available model is not compatible with the rest of the install-base. And then, because of just one particular need, now the customer has to go and spend five million Rands only because you allowed the rest of the install-base to age to a point where the only way to resolve the issue is a forklift approach."*

The idea, according to IV1, is that the account manager should grow with the customer's installed base by firstly looking at the maturity of the current equipment and then ensuring that the ecosystem is compatible before making proposals to the customer. He added:

> *"Then that allows that customer to stay with you for a longer time. You kind of lock out the competition. So, an account manager needs to be sitting with the customer service account manager, putting together one package that will serve and preserve a customer's install-base for the next five years, or beyond that."*

IV2 referred to this as "strategic account management" where a Key Account Manager would

> *"align with the customer on not just a year plan, maybe even a three/four-year plan, on where the hospital, as a customer, is going and you can really align them with a portfolio of things that can support them over time and get that type of long-term handshake."*

This role is seen as one that would need to interact with the Chief Executives (CX) on the customer side. There is currently a consensus that this competency is lacking among the key account managers.

IV3 believed that, for all the financial, technological, systems and process capabilities the Healthtech company possesses, the supply chain capabilities are deficient. In his frustration, he related a situation where he had to

> *"face the customer tomorrow at an executive level and I have to tell them this pilot project, which we promised you we'd roll out already in December, I can't even provide the goods until February and that's gonna be quite disastrous and it will have impacts towards (the Healthtech company) from such an important customer."*

Participants further listed competencies, such as good business acumen, future-mindedness, and solution selling, that will ensure the company's transformation is not only successful, but that the transformation will provide competitive advantage.

4.4.2.2 Solutions-selling capabilities

When asked about the aspects within the organisation that support solution selling, IV2 commented on the number of mergers and acquisition projects that were active:

> *"[It] is also making a lot of investments in terms of the technical capabilities to become a solutions company. So, they're really doing a lot of M&A, so they're buying out a lot of smaller companies whose value proposition is aligned with what we are trying to create from a solution."*

He clarified the importance of this strategy indicating that the company was able to plug the gap in competencies by acquiring companies with capabilities that it lacked:

> *"If we look to our internal capabilities, we can offer 60 percent, so that means there's a 40 percent gap and Philips is addressing that 40 percent gap, not by internal innovation in coming up with new propositions, but [by] buying a lot of existing smaller entities that work in those niche spaces and then bringing those capabilities into [the company]."*

IV7 noted the investment the company was making on new Financing models:

> *"We've invested in skills and we have very competent people that are in finance putting good business cases together, using offshore funding, using the international relationships with other banks to do offshore deals, like, for example, for the Africa market … So, I think now we've got people that come from a banking background and I think they will be*

better equipped to make this type of decision."

For IV8, it was communicating and celebrating project successes:

> *"… for example, we're successful and how a certain project was done successfully, and truly successfully, would definitely make us believe it's something good that we're doing."*

IV6 and IV10 mentioned the deep understanding that certain aspects of the customer processes can enable a complete *"care cycle"* innovation that cover those processes as well as pockets of strong relationships some of the key account managers have with their customers.

The rest of the participants remarked on the company's extensive investment on training.

4.5 Conclusion

This chapter presented the findings of the research based on the interviews conducted as well as the Healthtech company's internal and external documentation in order to answer the research questions. The results were discussed in sections, each section representing a specific research question. Chapter 5 interprets the research findings and presents relevant insights pertaining to these findings.

5. DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

Having discussed the context of the research, described the research problem, examined the literature for this research, and conducted the interviews, this chapter interprets the research findings presented in the preceding chapter. These results are guided and, where relevant, juxtaposed with literature presented in Chapter 2 as well as the findings from previous similar studies. The outline of this chapter commences with a brief context of the research. This is followed by the actual discussion of the results following the structure of the research questions. This chapter then concludes with the main summary points discussed within.

5.2 The research context

The purpose of this research was to explore how a multi-national B2B Healthtech

company can successfully transform its health systems organisation from product-orientation to offering integrated solutions that can add quantifiable value for its customers. The objectives of the research were four-fold:

- Chapter 2: To investigate the factors relating to the organisational design, value co-creation as well as competencies and capabilities that may hinder the successful transformation to solutions-orientation;
- Chapter 4: To present the results of this investigation;
- Chapter 4 and Chapter 5: To analyse and interpret the findings of the research;
- Chapter 6: To recommend strategies that the Healthtech company should consider to ensure successful transformation.

In the aim to address the objectives above, the following research question was crafted, which was then broken down into specific sub-questions that addressed a specific aspect impacting the transformation to solutions-orientation:

> *How can a multi-national B2B company successfully transform from a fragmented product-orientation to integrated solution-orientation?*

As with other research that specifically investigated transformation to solutions, the researcher applied a qualitative strategy and used semi-structured interviews as a data collection method. This was conducted in a single case study setting. Moreover, an investigation was conducted using company documents to develop a better understanding and to triangulate the findings from the interviews.

Purposive sampling was used to select the participants for this research as the research sample was made up of employees of the case company and their selection was deliberate. The information collected from the interviews and the results, which were presented in the previous chapter, were analysed using two steps: initial coding in the NVivo tool, and then manually coded in Excel to identify themes.

5.3 Analysis and interpretation of research results

5.3.1 Background Questions

The first set of questions posed to the participants sought to establish their understanding

of the solutions transformation program, the objectives of the program, their role in the program as well as the strategy of the program.

The results indicated a fair understanding of the key terms and of the transformation program within the Healthtech company in general. The fact that all participants were conversant with the solution transformation showed that there is a fair amount of communication around solutions and the transformation program. This statement was backed up by the fact that the Healthtech company has set up a portal for solutions and its various transformation programs, as indicated in the previous chapter. The company also hosts monthly global town hall meetings by the CEO to drive the transformation message.

The specifics around articulating the strategy and the objectives by the participants, however, was poor, indicating that, although there is a specific portal on solutions and there is general communications on the subject, there may be a lack of interest in uncovering more about this program. This may be due to the following factors:

- The program, particularly in Africa, is still a developing topic and there is still a lack of clarity on what is required;
- Most of the participants have no specific role in the transformation program yet;
- Solutions, for most participants, form a small portion of their daily tasks given that the KPIs have not yet been amended;
- Unlike other programs, this one introduces a fundamental change in the company operations and in ways of working, therefore, it is a long-term program with no specific end date, which may be a cause of apathy.

It is unsurprising that participants IV2 and IV5 were the only ones whose description of the strategy and the objectives lined up with information found in the company documents and portals, given that they are both part of the transformation team.

What was jarring however, was that some of the senior participants, who are considered executives based on their job grades, could not properly articulate the strategy, and link it to the solutions transformation. When surveying the company information, the researcher discovered that, although the information is readily available, it is not necessarily categorised, therefore, it may be difficult to differentiate parts that refer to the

strategy and those that refer to the value proposition and other messaging. Furthermore, different pages on the company website have articulated some of these messages differently, which the researcher believes creates a level of confusion for the participants and employees.

According to Haukkavaara (2007), the selected strategy of a solutions-oriented company, among other factors, should determine the overall design of the company. The organisational design findings are discussed in the next section.

5.3.2 Organisational design

The research question around the organisational design sought to identify how the Healthtech company needs to adapt its design for successful transformation.

5.3.2.1 Changes to the organisational design

It was clear from the literature review that organisational transformation to solutions requires a change in organisational design (Davies et al., 2007; Levihn & Levihn, 2016; Storbacka, 2011; Töytäri, 2018). Töytäri (2018) contends that the transformation to solutions cannot happen without a radical change in the functions of the business, including most organisational functions, but particularly the sales and marketing functions. Haukkavaara (2007) adds that back-end functions, which are responsible for capability development, require an overhaul as well given that they interface with the sales and marketing functions.

The research findings, however, indicated a contrasting view. Only two participants were clear that the organisational design requires a transformation, admitting that the company structures are complex, business unit (BU) driven and short-term focused. Two of the three participants who believed that the organisation is correctly structured, added that the company possessed the necessary skills and capabilities and that the only change required was to break the silos. The rest of the participants indicated uncertainty, evidenced by the use of words such as "I think". These findings are particularly interesting, as most participants agreed that the departments were product-focused and operated in silos however, they still believed that the organisation, as is, does not require alterations. This is clearly a contradiction to their statements as well as to the literature.

These findings may be attributed to the fact that, although the transformation program is well under way within the Healthtech company as a whole, a majority of the people in the organisation had a superficial knowledge of solutions, the program and what the implementation will mean for them and their roles. Another reason could be that the vision of the company and the cascade of the vision to becoming a solutions-oriented company were not clearly understood. This is not uncommon in transformation programs as seen in Haukkavaara's (2007) research report.

From the participants who recognised that a change is necessary, which corresponds with literature, there was also recognition that this change was more of a long term strategy as approximately two thirds of the company's revenue will continue coming from traditional business in the near future. This approach seemed to be a pragmatic one, given that most companies that have transformed achieved the transformation over many years, as seen with the companies in Davies et al.'s (2007) study and with other popular companies such as IBM. The Healthtech company has been in the transformation journey since 2016 and is on the path to accelerate this transformation. Given the myriad of issues relating to the African market, as described in Chapter 4, and based on the divergent findings from the interviews, the company may need to drive the messages across all functions aggressively.

The findings also indicated that the participants were indifferent to whether there should be a specific solutions department although two participants proposed the establishment of a COE and a specific team for the African market, given its diversity and complexity. Although this contradicts Storbacka's (2011) suggestion that solution selling should not be delegated to a specific function within the company, the idea is perceptive. The COE, for instance, will include participation from all functions, including the back-end and supporting functions, to advance a speedy transformation. This will be directly in line with the fact that effective transformation requires sponsorship from all functions, including product development, marketing, delivery, logistics and finance.

In summary, the findings indicated that the Healthtech company should transform its organisation in line with the literature and the theory of OD, which is based on the notion that the design of the organisation is a crucial factor in deciding the success of the organisation.

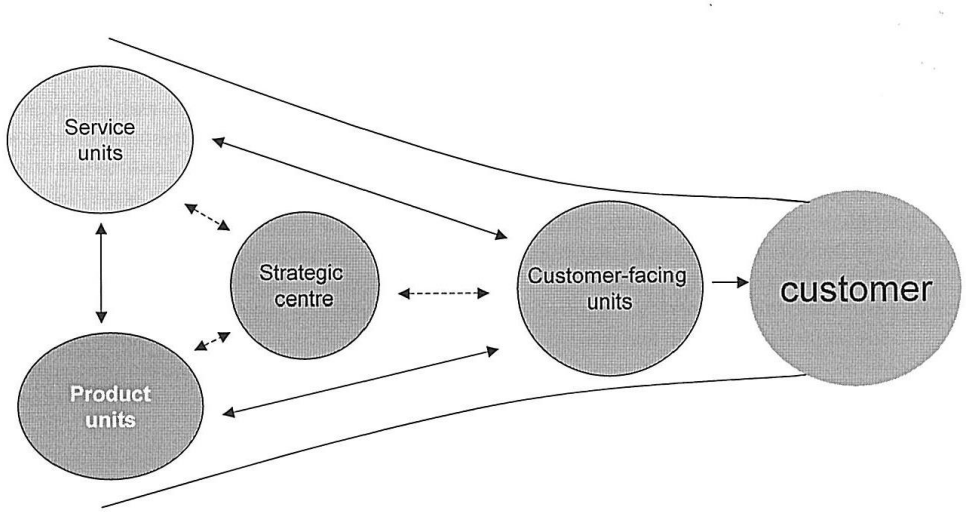

Figure 9: An organisational model for an integrated solution

Source: Brady et al. (2004, p. 12)

In Figure 9 above, Brady et al. (2004) merely suggest a model of how an organisation can be designed. The Healthtech company can choose to adopt this model or design one that is suitable for its transformation agenda. What is clear though is that OD can make a meaningful improvement to the efficiency of the company as it enhances the cohesion of the company's strategy and business model (Leyer et al., 2017).

5.3.2.2 Behaviours and cultures

All participants were asked about the cultures and behaviours they thought did not support the transformation. This was followed by a question asking what they thought were the aspects within the company that supported solution selling.

The findings indicated that the Healthtech company espoused behaviours that were suitable for its transformation agenda. In particular, the behaviours of "Customer First" and "Team up to win" align directly with this agenda. The "Customer First" behaviour was added in 2019 as the most fundamental one to espouse among the employees. As these behaviours were amended in 2019, it indicated that the company was forging ahead with its solutions strategy. The fact that these behaviours were linked to employees' KPIs, and therefore their remuneration, indicated the gravity of living up to these behaviours that will contribute to the success of the transformation. The researcher believes that these behaviours are becoming entrenched in the employees' ways of working and will affect the transformation projects positively.

A mindset is defined as a person's unqualified ideas about the nature of human characteristics, such as personality. A growth mindset is the notion that human characteristics, such as intelligence or personality, are flexible and can be significantly changed (Bernecker & Job, 2019). (Stoycheva & Ruskov, 2015) specify that a growth mindset is focused on continuous learning. This mindset embraces challenges, does not give up and learns from criticism and from the successes of others. The findings of this study revealed that mindset changes are the biggest challenge the company faces since a product-focused mindset is divergent and not customer-centric.

The findings further indicated that, as the mindsets of the employees within the company, particularly in Africa, are individualistic product and internally-focused, this is a hindrance to the company's transformation agenda. The company may find it difficult to change this mindset as it is entrenched within the company. Therefore, to succeed in the transformation, the company will need to entrench new mindsets: a growth mindset, a consultative mindset and a collaborative mindset. As one participant stated, reviewing and amending the incentive structure would be one way of changing the current mindset to a customer-centric one that focuses on mutual value between the company and its customers.

5.3.3 Value proposition, value co-creation and value measurement

With the questions posed in this section, the researcher sought to reveal ways in which the Healthtech company can utilise customer value co-creation to ensure that customer issues are appropriately addressed, and value is derived from these solutions. To appreciate the concept of value, the researcher unpacked the participants' understanding of the company's CVP and value co-creation to show how solutions can produce measurable value. The researcher discusses these below together with extant literature to determine how these concepts can assist the Healthtech company to address the full scope of customer problems in its transformational journey.

5.3.3.1 Customer Value Proposition (CVP)

The findings from the company documentation indicated a myriad of information on how the Healthtech company plans to apply solutions to strengthen its relationships with its existing customers, craft new customer relationships, improve its current offering,

improve profitability and deliver measurable value both for itself and its customers. In addition to the online solutions portal that the company built, the researcher discovered videos as well as a white paper describing the company's journey towards becoming a "customer-first health technology solutions partner" with the aim of providing as much information as possible for leaders and employees to arm themselves on the transformation journey (The Healthtech Company, 2021). The solutions transformation message is also disseminated at every town hall meeting and is recorded and available for study later. Undoubtedly, the company is utilising all possible channels to allow the transformation message to reach its eighty thousand (80 000) plus employees.

As with the articulation of the company strategy, it was challenging for participants to express the company's CVP. This is linked to the reasons provided in section 5.3.1 that, although the CVP is expressed in the company online portals, there are variations of the same message and it is difficult to pinpoint the actual CVP for employees.

Kotler and Armstrong (2018:35) define a CVP as benefits that a company undertakes to deliver to customers to satisfy their needs. The authors add that a brand's value proposition consists of a mixture of benefits which distinguish a brand and its positioning, providing customers with compelling reasons to buy the company's brand (Kotler & Armstrong, 2018). Considering this modest definition, the company's CVP can be described as:

> "providing customers and healthcare professionals with connected products and services that improve people's health and well-being across the full health continuum through:
>
> - Integrated modalities and clinical informatics to deliver precision diagnosis;
> - Real-time guidance and smart devices for minimally invasive interventions; and
> - Connected products and services for acute and chronic care." (The Healthtech Company, 2021).

According to Töytäri (2018), value propositions should contain three elements: the

communication of value concerning customer ambitions, the elucidation of business challenges that are tackled, and the differentiation of the supplier and the solution from the substitutes. Therefore, the Healthtech company's crafted proposition satisfies the requirements of a value proposition.

The attempted definitions of the CVP from the two participants described the company's vision rather than the CVP. Indeed, one participant, although also not able to express the CVP, stated that what the company conveys as a CVP is but "a slogan".

These findings indicated an obvious lack of understanding of key concepts and messages particularly as the participants were management sales employees, who were customer-facing and expected to have the capacity to communicate the company's key messages to customers coherently. Although this does not necessarily mean that salespeople are unable to sell the products they are trained for, the inability to communicate key messages hinders the discussion with customers at an executive level, further hampering the cultivation of relationships with customers.

5.3.3.2 Customer value co-creation

Literature is rich with value that can be derived from co-creating solutions with customers. Co-creation, a method to stimulate creativity and customer loyalty, recognises that the success of any particular company relies not just on the skills, assets and core competencies of the service provider, but also on the experiences of the customer (Makhni, 2017). According to Storbacka (2011), a solution provider, instead of creating products that provide value to consumers, engages in long-term cooperation with the customers and co-creates value with them. The concept of value co-creation has been prevalent in a wide range of service sectors for many decades however, in the health industry, the uptake has been slower for ethical reasons (Makhni, 2017; Sheth, 2020).

The Healthtech company is nonetheless growing in the area of customer value co-creation. An example of value co-creation was provided by IV3-JF, where, as a result of a partnership with a hospital in the Netherlands and other clinical partners, an image-guided platform was created. The company reported improvements in patient preparation, procedure times and laboratory times, resulting in hospitals being able to care for more patients. In the African market, the launch of this product resulted in the company taking over more than sixty percent of the catheter market, providing strong

evidence on the link to value co-creation and profitability. The co-creation effort of producing this solution is undeniably what led to the success of the product.

Despite the fact that solutions transformation, particularly in the African market, is still in its infancy, there are areas where co-creation activities have either started or are in discussion with customers, according to the findings of the interviews. One of the areas, as indicated by IV1-KG, is in financials, where the company is co-creating commercial models that work for different customers. This is a direct result of the maturity of customers' understanding of their own problems, and the solutions required to address them, as reported by Adamson et al. (2012).

According to Sheth (2020), the growing popularity of public-private partnerships (PPPs) between companies and governments presents a major potential for value co-creation. The Healthtech company recognised, seized this opportunity and entered into a modality management PPP with a hospital in South Africa, as one participant (IV7) explained:

> *"I think the big challenge is obviously the cost factor. So, I think governments will know that it will cost a lot more than if they had to do it themselves in-house but I think knowing the capabilities and the expertise of the company and the value that the company will bring, it is better to incur a little bit more extra costing for proper management."*

These findings showed that the activity of co-creation, as opposed to the solo innovation of products and services, assists companies in understanding customer problems and addressing them appropriately, despite the time it might take to complete the co-creation. The results also provided concrete proof of the value of moving beyond off-the-shelf goods to providing innovative solutions specific to each customer's preferences or desires as clearly indicated by the astounding market share increase of the launch of the digital catheter platform in Africa for the Healthtech company.

Accordingly, customer value co-creation has benefitted the Healthtech company and its customers in the following ways:

- The company has gained a deeper relationship with its customers, which is a catalyst to understanding the politics, the culture, who the decision makers are as well as the paradigmatic assumptions within the customers' organisations.
- The customer gained an opportunity to play a part in creating a solution that

specifically caters to their everyday challenges, thus making their jobs simpler.

Whether the Healthtech company was pushed towards value co-creation by competitors or simply the desire to listen and understand customers, who are continuously requiring more from suppliers, the company's decision to move to solution orientation is certainly the correct one. Being one of the top innovation companies in the world, there is no doubt that solutions will create lasting and measurable value for the company as well as its customers.

5.3.3.3 Value Measurement

The analysis and interpretation in the previous section clearly demonstrates that value can be derived from the application of customer value co-creation. However, certain authors have questioned whether this value, stemming from the implementation of solutions, can be quantifiable and measurable (Adamson et al., 2012; Driedonks et al., 2019; Lindström, 2014). To this end, the researcher sought to understand the challenges and pains experienced by the Healthtech company's customers and how the implementation of solutions can alleviate these.

Firstly, the findings revealed that participants agreed that the implementation of solutions can address the company's customers' biggest pains and therefore produce measurable value. This belief may be based on the participants' perceived experience of how solutions, even if they were isolated, have benefitted customers in Africa, in other markets or even from competitors' implementations. This may indeed be true as monthly CEO town hall meetings feature solutions implementation and the benefits that have been realised from these implementations.

Secondly, the findings revealed that one of the biggest customer pains in Africa was cost. Although the Healthtech company has innovative products that have elaborate features, this is not necessarily what the customer needs and wants, especially in the African market where health needs are basic. Additionally, the extra features tend to make the products more expensive than competitors' products, and thus are unattainable for most customers. There is therefore a perception that the company is a premium brand. As one participant expressed, competing in the African market, where cost is a big factor, particularly in the public sector, is a massive challenge. Another participant qualified this statement by stating that premium brands that succeed in the African market sell

solutions. Yet another participant agreed with this statement and expressed that the company has thus started selling the bigger value story of what the combined technology of the solutions can bring to the customer. The shortage of clinical specialists as well as product after-sales services were also listed as pains for the African market customers. As Brady et al.'s (2004) research revealed, solutions delivery projects must cover the entire lifecycle of the project including the after-sales service.

The researcher's impression is that many of the customer pains in the market are self-induced. For instance, the company's products are manufactured in first world countries where the market needs and requirements are different. Many of the features innate in these products are unexploited in the Africa market as they are not required. For the African market, the only way to alleviate customer pains is to sell the value story and seek to implement end-to-end solutions that include after sales service as well as training.

5.3.4 Capabilities and competencies

This section reviews the current capabilities within the company and the capabilities required to enable successful solutions transformation.

5.3.4.1 The Healthtech company's innate capabilities

For a company that has been in existence for over a decade and has evolved from producing lighting products and electronics to making an exclusive shift to health technology, the Healthtech company has developed, and redeveloped the capabilities and competencies to be competitive. Similarly, for the transformation to becoming a solutions-oriented company, the same must be done. As stated by Ceci and Masini (2013), companies that tranform to solutions not only need to redesign their product offerings, but also need to attain and reconfigure their capabilities to address a wider pool of customer needs.

The findings of the internal review of the documents revealed that the Healthtech company has managed to successfully build capabilities that have ensured it produces the right products for its customers and cements its position in the market. The VRIO analysis, conducted on the company's resources and capabilities, revealed that the company has, to date, built capabilities, such as the company's brand, financial and organisational (behaviours and cultures) capabilities that afford it a sustainable

competitive advantage. The company is well-known for quality products and has amassed substantial financial resources that have funded innovation and the acquisition of strong human capital. As stated in section 5.3.2.2, the company has five corporate behaviours that every employee has to abide by, one of which is "customer first", and these are ingrained in every employee's KPI. This specific behaviour ensures that the customer is foremost in each employee's mind, and this, the researcher believes, gives the company the edge over its competitors, and will assist the company in successfully transforming to solutions.

The success of the company can be attributed to its experience in producing innovative and revolutionary products. The company has become synonymous with quality and innovation and, to keep up with its reputation, the company invests substantially in research and development.

Although the company's products are regarded as innovative with top-end features, they are equally regarded as premium and thus have a high cost attached to them. Many customers from Africa find the prices of the products prohibitive as indicated by participants IV1, IV6, IV9 and IV11. Due to the cost constraint, the company thus currently lacks comparative and competitive advantages in most of its product offerings. The VRIO analysis further indicated that the company achieves competitive parity on its human capital with competitors. As such, to obtain these advantages, the company must improve the capabilities it currently provides to attain a competitive advantage and competitive parity to surpass those of their customers as well as their competitors (Haukkavaara, 2007).

5.3.4.2 Human capabilities and competencies

Researchers in solutions transformation agree that companies that go through major transformation programs are obliged to reform their capabilities as well (Brady et al., 2001; Brady et al., 2004; Brady & Davies, 2004; Ceci & Masini, 2013). According to Brady et al. (2004), companies that desire to become solutions oriented need to grow across four non-sequential phases of capability. The first two stages are based on developing a customer-facing front-end department that is responsible for coordinating the implementation of solutions at the customers' end. The third and fourth steps involve expanding the back-end's capabilities to include solutions-supporting and service

organisations. Storbacka (2011) on the other hand, differentiates between commercial (customer facing) and industrial (company facing) capabilities. Brady et al. (2001) specifically cite consulting capabilities (capabilities required to understand a customer's business and needs and then to propose solutions that address those needs holistically) as crucial for integrated solutions implementation. Table 3 below contrasts some of the different capability frameworks from these researchers and indicates that, although the frameworks may be worded differently, they essentially communicate the same message.

Table 3: A comparison of capability frameworks

Source: Author's own

	Brady et al. (2001)	Davies et al. (2004)	Storbacka (2011)
Front-end	Business consulting	Front-end moves	Commercialisation
	Financing	Grow the front end	
Back-end	Operational Service	Build the back end	Industrialisation
	Systems Integrated	Re-focus the firm	

The results from the interviews revealed that participants certainly agreed that there was a gap in the current capabilities required to implement solutions. Business consulting capabilities, for instance, were cited by several participants, particularly those at the executive level and those that were in the transformation program teams (IV5, IV2, IV1 and IV3). These participants have since started undergoing training on solutions to cover these capability gaps. Another capability that was explicitly mentioned in the company documentation by IV2 was strategic account management. This role focuses on building long term partnerships with customers by aligning plans over a period of three years or more. The company has, again, started training their teams on these skills.

This indicates that the company has thoroughly investigated the requirements of becoming a solutions company, is aware and is candid about its shortfalls and recognises the importance of acquiring the capabilities to make a success of the transformation. As participant IV2 disclosed, there have been recent talent acquisitions in senior leadership positions, from companies such as IBM and Cisco that are well-known for their successful transformations to solutions.

Another capability listed by participants as equally important, is business solutions architecture. As described by V1, this role looks at the impact of proposed solutions holistically, i.e., commercially, risk-wise, service-wise, people-wise, etc. Storbacka (2011) refers to this as a new role that needs to effectively function together with existing roles. The PLCM (another critical capability that acts as a catalyst to implementing solutions and ensures that the installed base is managed throughout its lifecycle) and project management being the others. Given the customer pains and challenges already discussed,

the researcher agrees with the participants on the acquisition of these capabilities. Not only will they ensure that the right solutions are proposed and delivered for the customers, but they will also ensure the longevity of the solutions, where the life cycle of each product is managed, and the replacement is planned for in advance.

5.3.4.3 Solutions selling capabilities

The findings indicated other capabilities that the Healthtech company is investing in, with the aim of becoming a strong player in the health technology solutions arena. The VRIO analysis shows that the company has been involved in divesting from businesses that are not core health technology (the company recently divested from its lighting business and is currently in the process of disentangling its domestic appliances business) and using its strong financial position to acquire smaller players in niche health technology spaces, with compelling innovations, *"whose value proposition is aligned with what we are trying to create from a solution"* (IV2) and who can plug the competency and capability gaps that currently exist. There is therefore a clear and ruling passion to direct the focus towards a successful transformation.

The new financing models are also regarded as ground-breaking for the company. The company has recently established a financing division called Healthtech Capital. This division is responsible for putting together financing models, including offshore funding, that makes it easier for customers to acquire the company's solutions. Again, the company has shown its resoluteness in ensuring a successful transformation in that it has staffed this division with people who have a banking background.

Communicating wins and creating hype around solutions resonated with IV8. For this participant, this created an impression that the company was on the right track and created a certain consciousness in the mind of the employees. The company's extensive investment in training to build capabilities was lauded by all participants as world-class. As IV3 indicated, the African senior management teams are undergoing coaching on effective solutions communication. Once more, this reveals the company's commitment to successful transformation.

In summary, the Healthtech company has demonstrated a strong awareness of what is required from a capabilities perspective and it is faring well in using its existing capabilities – a strong brand name, and financial leverage – to develop and acquire the necessary

capabilities for successful transformation. By seeking to acquire and improve its capabilities and competencies, the company can integrate and apply this knowledge for commercial purposes. This is known as absorptive capacity and this theory is applied to fully answer RQ3.

5.4 Conclusion

The purpose of this chapter was to evaluate and interpret the findings of the research based on the internal documentation and interviews as presented in Chapter 4 in order to confirm the research propositions as follows:

Research Proposition 1

Adapting the organisational design to align to a solutions approach will enable successful transformation from product-orientation to solutions-orientation.

The literature is clear that successful transformation to solutions requires an overhaul of many functions, one of which is the organisational design. The analysis of the findings indicated that the organisation of the Healthtech company is not suitably designed for successful transformation. In this regard, the proposition is anchored on literature and on the OD theory and therefore RP1 is fully confirmed.

Research Proposition 2

Adopting the concept of customer value co-creation will ensure the correct customer issues are appropriately addressed and value for the customer is realised.

The theory of SDL, which is based on the premise of exchanging mutually-beneficial skills and competencies, was used to anchor this research proposition. Co-creation can be said to be mutually beneficial for both the company and the customers. There is undeniable evidence of this with the launch of the cathlab throughout the company, the success of which is attributed to the co-creation process. Therefore, the theory of SDL can fully confirm RP2.

Research Proposition 3

Acquiring the right capabilities and competencies enable successful transformation to solutions-orientation.

Solution sellers, unlike conventional salespeople, require a far more in-depth understanding of their customers' businesses while, at the same time, possessing a deep understanding of their company's products to propose suitable solutions for customers. By seeking to improve their knowledge of customers' businesses with capabilities, such as business consulting and strategic account management, and using them in conjunction with knowledge of their products, the Healthtech company can integrate and apply this knowledge for commercial purposes. This is known as absorptive capacity and this theory is applied to fully answer RQ3.

The next chapter will summarise the entire research, provide recommendations and guidance on future research before concluding the research report with limitations of the study.

6. SUMMARY, CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

The purpose of this chapter is to provide a summary of the research study, discuss the recommendations and possible future research topics. Thereafter, the researcher will conclude the research report.

6.1 Summary

This study sought to understand how a multinational B2B company can transform from a product-focused business model to a solutions-oriented model. The study sought to achieve this objective through addressing the following research objectives:

i. To investigate factors relating to organisational aspects, value propositions and capabilities that influence successful transformation to solutions;

ii. To present the findings on the investigation on transforming from product-orientation to solution proposition;

iii. To interpret and analyse the findings in relation to the transforming from product-orientation to solution proposition and;

iv. To recommend strategies for consideration for the transformation to solutions for the Healthtech company.

This was detailed in Chapter 1, which also highlighted the delimitations as well as the significance of the study.

Chapter 2 presented a discussion of the problem analysis through an in-depth review of the available literature. The chapter covered literature on solutions transformation, specifically covering the areas of organisational design, value co-creation and capabilities. The chapter further studied previous case studies in the solutions transformation to identify the research gap. Finally, the theories of OD, SDL and APAC were examined and then linked to the research propositions.

The research question was answered, and the objectives fulfilled through using a qualitative method of research that included the examination of the Healthtech company's internal and external documents, and semi-structured interviews, as detailed in Chapter 3. From these, the results below were gleaned:

Although the transformation program has started in Africa, the organisational structure of the company is not suited to support solutions selling and thus a transformation is required. Secondly, value co-creation has been shown to be effective in producing measurable value for both the company and the customers however, this is fragmented throughout the company. Lastly, the company possesses strong capabilities however, solutions supporting capabilities need to be built or acquired. These findings were presented in Chapter 4, which also provided contextual details about the company's structure and the African market.

From the interpretation of the findings, the following can be deduced: The Healthtech company has implemented several changes to support the transformation to solutions. Firstly, there is a communications drive although there could be improvements in this area. Secondly, the company has started training its senior leadership on solutions, but the training needs to be expanded. Lastly, the company has started utilising the concept of value co-creation which has been proven to assist in resolving customer problems.

6.2 Conclusions

Solutions selling has been the subject of study for over four decades, such that the majority of Fortune 100 companies have pursued solution business strategies by increasing their services (Salonen et al., 2021). Transforming to solutions is an appealing opportunity for companies that are seeking growth especially in markets that are saturated and commoditised. Solutions open new business channels and enable companies that transform to explore new revenue opportunities. Solutions have been proven to work, as seen in companies like IBM and Cisco, and, as companies continue to implement solutions, new business models and theories are being built.

According to Brady et al. (2004), since there is no one-size-fits-all business model to solutions transformation, success is contingent on the ability of the company to be entrepreneurial, experimental and open-minded. To make this move, companies must be able to constantly learn, improve, and refresh their structures while still providing the solutions that their customers want.

6.3 Recommendations

The recommendations for the Healthtech company are summarised as follows:

- **Developing a common understanding of the key messages pertaining to solutions:** From the findings of the interviews, it was clear that the messages which are assumed would be common across the employees of the company were not common. Upon closer inspection, it was discovered that the messages within the company portals were also not consistent. As such, it is imperative for the company to create a common vision and vocabulary of key messages, such as the strategy and the value proposition, and then communicate it to employees, to ensure these messages are entrenched. The company's communication is sufficient, however key messages need to be consistent throughout all channels.
- **Develop solutions-oriented key performance indicators and incentive structures:** The current KPI and incentive schemes are still product-oriented. To address the issues of silos as well as product mindsets that were discussed in the analysis, it is important to implement measures that will compel a change in the employees' ways of working. Additionally, it is recommended that back-end functions, that is, everyone who is part of the solutions value chain, be included in the incentive schemes to ensure the teams' delivering solutions are complete and fairly rewarded.
- **Involve back-end functions in the solutions training:** The interviews revealed that there is training currently ongoing on solutions transformation, however back-end functions are excluded from this training. This further encourages the mentality of "us" vs "them". It is thus recommended that the functions that were previously excluded from training, be included to ensure that all functions have a common understanding of solutions and can be productive in the transformation drive.
- **Make the concept of value co-creation common within the market:** Whereas currently value co-creation is happening in fragments, more of this needs to be driven as the benefits of co-creation have been proven.
- **Develop an Africa-specific solutions centre of excellence to address the unique challenges faced in the market:** The African market truly has unique challenges, unlike any other market that the Healthtech company operates in. To win in this market, the idea of a COE, encompassing representation from every function, should be considered to build or tailor solutions to fit with the African

market.

- **Invest in the present to reap the benefits in the future:** With the vast financial capabilities that the company has, it is recommended that the company enter into partnerships with governments and invest in infrastructure projects and training in key strategic sites. These solutions will produce value for both parties. The company has already started with a turnkey project in Ethiopia therefore the recommendation is for projects like this to be expanded.

6.4 Limitations

The limitations of this study, which were discussed in Chapter 3 still apply:

- The research design selected for this study is a case study, and thus the research is limited to the Healthtech company only. The limitation of this method, as is evident in similar published literature, is that the findings cannot be generalised.
- Population and sampling: The participants were purposefully chosen by the researcher. This means that the results may not be sufficient for conclusive use by other researchers.
- Procedure and methods: The semi-structured method of data collection meant that the personal biases and influences of the interviewees could not be fully removed.
- The subject under study is fairly new for the participants as the transformation project is at the inception stage. The researcher was therefore not able to glean richer responses from the participants as anticipated.

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APPENDIX 1.1: DATA COLLECTION INSTRUMENT(S)

Interview Questions

1. Background questions

- Describe in a few words of your own, what is the solutions transformation program about?
- Why was the program started, specifically for Africa?
- What are the objectives of the program?

Role

- What is your role in relation to the solutions transformation program and/or solutions selling?
- What are your top two objectives on the transformation program?

Strategy and its implementation:

- Could you describe the company's solutions strategy in your own words?
- What are the practical approaches and methods for realizing the strategy?

Solutions in Africa

- How would you describe the market in Africa?
  - In terms of growth, culture, number of customers, customer profiles, etc.
- Do the solutions selling approaches fit these markets?
- What kind of challenges or risks do you foresee the market poses for these new strategy?
- Do you think that solution-orientation provides additional value in these markets?

2. Overall organization design and management:

- Is the current organizational design structured well enough to align to the solutions strategy?
  - If not, how do you think the solutions organization should be designed within the company to align to the solutions strategy?
- What are the cultures and behaviours that you think support the transformation model?
  - Which ones would you change?
- What do you think are the aspects within the organization supports solutions selling well?
- How would you improve the overall business unit (BU) structure and cooperation between BUs?

Overall Sales organization and management:

- How does the new approach affect the sales and marketing organisation?
- Is the current sales organisation structured well enough to support the transformation program?
  - If so, what do you think is working?
  - If not, what do you think needs to change within the sales organisation?
- Is your company's sales process aligned with customers' buying processes?
- Can you reach the people in power positions (CXO-levels)?
  - Do you have senior enough sales team leaders to match the power of customer side?
- Have you matched your external communications and marketing with the solutions selling thinking?

Supporting (backend) functions:

- What is the role of the backend functions on the solutions transformation?
- Do you think the backend functions are structured well enough to support the sales organisation and the transformation program?

o If not, how do you think these functions should be designed to support the new strategy?

3. Customer value co-creation

- With the new strategy to become solutions-oriented, what is the company's new value proposition?
- What, in your understanding is customer value co-creation?
- How do you think the company can achieve customer value co-creation?
- Do you think solutions transformation can produce measurable value?
  - o How can this value be measured?
- Please describe the key customer pains in your solution categories.
- Do you think implementing solutions will help you resolve these customer pains?
  - o If so, in what way?
  - o If not, what do you think is the solution to addressing these customer pains?

4. Capability and competence development:

- What do you think are the capabilities and competencies required to be a solutions company?
- What kind of training have you had on solution transformation or solution selling?
- As a customer-facing employee, what kind of competencies do you think you require to be effective in selling solutions?
  - o How do you think these competencies need to be developed?

APPENDIX 2.1: ONE-PAGE BIO OF THE RESEARCHER

I am an IT professional working for one of the biggest Health Technology companies in the world. I have been in the IT industry for 18 years. In this period, I have assumed a range of roles within IT and in various industries. I have also had an opportunity to work in the UK as part of a secondment program and I have been provided me opportunity to coordinate and direct various activities across different teams in different countries.

The focus of my role has largely been on building strong relationships with business stakeholders, delivery partners and colleagues. I am customer-oriented, attentive, pragmatic and inquisitive. My extensive experience in supporting the HR function has also unearthed my natural ability and passion in inspiring and developing people. In addition to the experience and skills I have gained in my career, I strive to improve my knowledge. As such I am currently enrolled for a Masters in Business Administration with Wits Business School.

I consider myself a global citizen and given my experience in working on projects spanning regional countries, I also appreciate diversity in people. One of my passions is travelling within and outside Africa and this has helped me to venture outside my natural inclinations and levels of comfort.

Career History - Summary

Philips	Head of IT – Africa	Aug-17 to date
Edcon	Project Manager (Strategic Projects)	Aug-15 to July-17
Edcon	Business Integration Manager (HR)	Dec-11 to Jan-17
Unilever	IT Business Partner (Global Learning)	Jan-10 to Nov-11
Unilever	IT Business Partner (HR Outsourcing)	Jan-07 to Dec-09
Unilever	Project Management Officer	Jul-06 to Dec-06
Unilever	IT Project Coordinator (Secondment)	Jan-06 to Jun-06
Unilever	Business Analyst (SAP HR)	Jun-04 to Dec-05
Caltex	Functional Consultant (SAP HR)	Jan-03 to May-04
Metropolitan Life	IT specialist	Jan-00 to Dec-02

Education and training - Summary

MBA	Wits Business School – In progress
Honours Information Management (with distinction)	University of Johannesburg - 2014
BTech Degree Information Technology	UNISA - 2003
National Diploma Information Technology	University of Johannesburg - 1999
South African Senior Certificate (with exemption)	RAUCALL – 1996
French language course (Beginner Level – A1.2)	Alliance Francaise - 2017
Retail Management Development Program (RMDP)	University of Pretoria - 2015

DECLARATION OF CONFLICTING INTERESTS

I declare that I am currently employed by the company that is the case study for this research and therefore there might be a potential conflict of interest.

FUNDING

I am part funded by the case company for the MBA.

APPENDIX 2.2: Ethic Documentation

Wits Business School

Dear Sir / Madam,

My name is Manthisana Mosese and I am a Masters in Business Administration (MBA) student at the University of the Witwatersrand, Johannesburg. As part of my studies, I have to undertake a research project, and I am investigating how a Healthtech company can successfully transform from product-orientation to providing solutions to customers, under the supervision of Dr Thabo Mosala.

As part of this project, I would like to invite you to take part in an interview. This activity will involve a face-face interview and will take approximately 60 minutes. With your permission, I would also like to record the interview using a digital device.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The interview will be completely confidential and anonymous and the information you give to me will be held securely and not disclosed to anyone else. I will be using a pseudonym (false name) to represent your participation in my final research report. If you experience any distress or discomfort at any point in this process, I will stop the interview or resume another time.

If you have any questions during or after the interview about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the university library website. If you wish to receive a summary of this report, I will be happy to send it to you. The data collected from this research project will be stored on OneDrive and will be kept for 3 years. The data collected from this research project may be used by other researchers. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrec-medical.researchoffice@wits.ac.za

Yours sincerely,



Researcher:
Manthisana Mosese, 1734729@students.wits.ac.za, +2783 791 2131

Supervisor: Dr Thabo Mosala, thabo.mosala@wj-c.co.za, +2783 286 4933

APPENDIX 2.3: Consent form for participation in a research project

Title of project: Transformation from product-orientation to solution proposition

Name of researcher: Manthisana Mosese

I, ……., agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following:

(Please circle the relevant options below).

I agree that my participation will remain anonymous	YES	NO
I agree that the researcher may use anonymous quotes in his / her research report	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that the information I provide may be used anonymously after this project has ended, for academic purposes by other researchers, subject to their own ethics clearance being obtained.	YES	NO

…… (signature)
…… (name of participant)
…… (date)

…… (signature)
…… (name of person seeking consent)
……..…(date)

APPENDIX 3.1: EDITOR'S LETTER

Barbara Shaw
Editing/proofreading services
18 Balvicar Road, Blairgowrie, 2194
Tel: 011 888 4788 Cell: 072 1233 881
Email: barbarashaw16@gmail.com
Full member of The Professional Editors' Guild

To whom it may concern

This letter serves to inform you that I have done language editing, formatting and reference checking on the thesis

TRANSFORMATION FROM PRODUCT-ORIENTATION TO SOLUTION PROPOSITION – A CASE STUDY WITHIN A HEALTH TECHNOLOGY COMPANY IN AFRICA

by

Manthisana Mosese



Barbara Shaw

30/03/2021