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Understanding innovation in low-income markets

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ABSTRACT

As western markets stagnate, companies are looking to the emerging world for growth, and have begun to experiment with offerings that target the four billion micro-consumers at the base of the pyramid. To successfully engage these emerging consumers, firms must innovate around their product offerings and business models.

This report sought to better understand innovation in a low-income market context. It explored what drives companies to enter low-income markets, the triggers for innovation in these markets, and the characteristics of that innovation, drawing particularly on Clayton Christensen's theory of disruptive innovation.

Nineteen interviews with executives at 11 companies operating in South Africa were interviewed in order to test propositions derived from the literature. The findings showed that companies enter low-income markets largely in pursuit of growth, but that a variety of secondary factors also play a role. The data indicated that innovation in low-income markets is often triggered by negative factors such as lack of infrastructure or limited buying power, rather than the positive factors cited in much of the existing innovation literature. Finally, it illustrated that companies often exhibit the elements of disruptive innovation when they engage with emerging consumers. The report then offered two models -- Innovation in low-income contexts: a descriptive model, and the Emerging Consumer Innovation Web -- to help companies frame the innovation process in a low-income context. It concluded that companies need to adopt a new philosophy of innovation when engaging emerging consumers, one which embraces the challenge of low-income markets as a springboard for innovation and a catalyst for creativity.

DECLARATION

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

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"Necessity, who is the mother of invention"

Plato, *The Republic*

CHAPTER ONE: INTRODUCTION TO RESEARCH PROBLEM

1.1 Background to Research Problem

1.1.1 The growing importance of low-income markets

Emerging markets are experiencing their most dramatic growth in decades, gaining a greater share of the global economy and offering significant opportunity for companies faced with faltering Western economies (Immelt, Govindarajan, Trimble, 2009). The World Bank forecast in June that gross domestic product in developing countries was expected to grow by 5.7-6.2 percent in 2010, while rich countries would manage expansion of only 2.1-2.3 percent (World Bank Global Economic Prospects Report, 2010). Emerging market consumers are also spending more, and accounted for 34 percent of global consumption in 2009 versus the United States' 27 percent (The Economist, 2010).

Attracted initially to emerging countries by their burgeoning middle classes, many firms are now turning their attention to low-income markets within these countries, due in part to the sheer volume of potential customers (Prahalad, 2005; Mahajan, 2009). Since 2002, when Prahalad and Hart argued in a seminal article that companies could reach vast new markets by profitably serving the world's four billion micro-consumers, practitioners and academics have debated the concept of "the fortune at the bottom of the pyramid" (Prahalad and Hart, 2002; Prahalad, 2005), and many companies have experimented with offerings targeted at the poor (Jose, 2008). Academics have debated the definition, scope and potential of the 'bottom of the pyramid' -- a debate which will be unpacked in more detail in chapter two -- yet many writers, researchers and practitioners believe there is potential to serve the poor profitably (Hammond, Kramer, Katz, Tran, Walker, 2007). In fact, the idea that companies can do well by targeting the four billion people at the base of the pyramid has gained such traction, that debate has largely shifted from *whether* companies should engage such markets, to *how* they can achieve success in this new territory (Prahalad, 2010).

In reality, however, many multi-national companies were built to serve the needs of sophisticated consumers from rich countries, and struggle to understand the needs and behaviours of the poor. They are now realising that they may need new strategies, business models and new ways of innovating to successfully operate in low-income markets (Prahalad, 2010; Simansis and Hart, 2009; Jose, 2008; Olsen & Boxenbaum, 2009). This report is interested in understanding why companies enter low-income markets, what prompts them to innovate in such markets, and finally in the characteristics of that innovation. These themes will be explored in more detail below, with reference to current debate emerging from academic, as well as practitioner and popular articles.

1.1.2 A new philosophy of innovation

While academics have stressed that innovation is critical for success in low-income markets (Prahalad & Hart, 2002; Anderson & Billou, 2007; Anderson & Markides, 2007; Christensen, Craig & Hart, 2001), much of the innovation literature has emerged from a developed world paradigm, yielding findings and frameworks that have little to offer companies entering dramatically different low-income markets. In contrast, numerous articles in the popular press and practitioner journals have discussed the need for a new approach to innovation (Prahalad, 2010; Prahalad and Mashelkar, 2010) which is relevant to low-income markets, and which reflects the growing dominance of emerging markets on the stage of global business (Immelt *et al,* 2009; The Economist, 2010; Hart, 2010). Prahalad and Mashelkar (2010) argued that, given the current rates of growth in emerging markets coupled with frugality in the west, innovation should be driven by affordability and sustainability rather than sophisticated technology and premium pricing. Companies are being urged by articles in popular and practitioner journals to focus their innovation competencies on "frugal engineering" (Sehgal, Dehoff and Panneer, 2010) -- making simple, value for money products that are accessible to the vast markets of the developing world (Prahalad and Mashelkar, 2010; Foster, 2010; Hart, 2010). Frugal engineering is not simply about making cheaper products, but about enabling a "clean-sheet" approach to innovation and product development. This approach starts from the bottom-up, and involves completely redesigning products to prioritise the dimensions of performance that are important to emerging consumers, whilst stripping out non-essential costs (Sehgal *et al,* 2010).

1.1.3 "Reverse Innovation"

Given this new focus on low-cost innovation, firms are being urged to view low-income markets as a *source* of innovation, rather than as a passive recipient of simplified first-world products, and as an engine of creativity and growth at a time when traditional developed markets are stagnating (Prahalad and Meshaklar, 2010). In the new introduction to his revised 2005 classic, 'The Fortune at the Bottom of the Pyramid', Prahalad argues that firms can catalyse creativity by taking a zero-base view of innovation in low-income markets (Prahalad, 2010). Dominic Barton, the managing director of the consulting group McKinsey underscored this point at a recent event in Johannesburg, noting that emerging markets were becoming centres for low-cost innovation, where the lack of legacy constraints and existing systems could create a "cauldron" of ideas (Barton, 2010). The Economist argued in a recent special report on innovation in emerging markets that developing countries are becoming "hotbeds of innovation" as multi-national companies and emerging market champions compete to reinvent production and distribution systems and create new business models to sell dramatically cheaper goods (The Economist, 2010). Several thinkers, particularly in the popular and practitioner press, have noted that innovation in low-income markets can benefit a company's developed-world operations, because low-cost innovations leapfrog back into value segments in wealthy countries, disrupting existing offerings (Immelt *et al*, 2009; Hart, 2010; Elkington & Hartigan, 2008). In a Harvard Business Review article, General Electric CEO Jeff Immelt and others argued that companies must engage in "reverse innovation", which involves developing stripped-down and adapted versions of existing offerings at lower price points in low-income markets and then exporting them globally (Immelt *et al,* 2009). Hart (2010) takes a similar view, noting that by driving complexity and cost from products and business models, companies can develop offerings that both serve consumers in low-income markets, and which can "trickle up" to the developed world.

1.2 Research motivation

Despite the heightened attention in the practitioner press on the rationale for innovation in low-income markets, as well as numerous articles in the popular press providing examples of how "frugal" innovation is emerging from emerging markets (Sehgal *et al,* 2010) and "trickling up" to the rich world (The Economist, 2010; Foster, 2010; Hart, 2010), few academics have empirically studied innovation in a low-income context, beyond pointing out that it is necessary for success. This research report therefore seeks to explore innovation in a low-income context, and to develop an empirically-grounded framework to better understand why and how companies innovate at the base of the pyramid. The report will first examine the drivers for companies to enter low-income markets, before considering the triggers for innovation in such markets, as opposed to the well-documented triggers for innovation in developed markets. It will then consider *how* companies innovate in low-income markets, with reference to Clayton Christensen's influential work on disruptive innovation. Disruptive innovation occurs when a firm, attracted by a potential new market, introduces a new set of performance parameters that allows it to compete against non-consumption (Christensen & Raynor, 2003). These parameters often involve offering 'good enough' quality at a lower price point. While Christensen notes that low-income markets are ripe for disruptive innovation (Christensen *et al,* 2001; Hart and Christensen, 2002), academic literature has not rigorously examined the applicability of disruptive innovation in an emerging market context. This report will explore whether firms exhibit the elements of disruptive innovation when they engage with low-income markets, and whether the theory of disruptive innovation might provide a useful framework for companies operating in such markets or those seeking to engage micro consumers and producers.

1.3 Academic Motivation

While research around innovation, including disruptive innovation, is prolific, much of it has emerged from a developed world paradigm. Literature on low-income markets advocates the need for innovative strategies when serving the poor, but rarely engages with the innovation theory base, and offers little in the way of rigorous research into how and why firms innovate in such markets.

Even the literature on low-income markets is limited, despite the debate and interest generated among practitioners. A recent survey of 16 prominent academic management journals over the last 22 years (1989-2010) produced only 11 articles that were concerned with how business can address poverty (Bruton, 2010). Of those 11 articles, many were argumentative or theoretical, and very few were produced by researchers residing in countries with residents who would form part of the 'base of the pyramid' (Bruton, 2010). While clearly, this list is not exhaustive, it does indicate the paucity of empirical academic research grounded in low-income market contexts.

This report aims to contribute to both the innovation theory base, and the body of literature on low-income, or 'base of the pyramid' markets, by extending the innovation literature to a developing world context through an exploration of why companies enter low-income markets, what triggers innovation in these markets, and how that innovation can be characterised.

1.4 Research Scope

This report will focus on innovation at the level of the firm, through an exploratory analysis based on interviews with 19 executives at 11 national and multi-national companies which previously operated only in mid-high income markets, but have chosen to enter low-income markets in South Africa with new offerings. It will include companies operating across a range of sectors, including financial services, consumer goods, retail and technology.

2.0 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The previous chapter introduced the theme of innovation in the context of low-income markets. It outlined the relevance of the subject for business in South Africa and beyond, as well as the academic motivation for this study, noting that the literature on innovation has emerged from a largely developed world paradigm, with very little research focused on why and how innovation takes place in a developing market context. This chapter will review the theory base regarding business in low-income markets as well as the literature on innovation, allowing for the formulation of more detailed research propositions about what drives companies to enter low-income markets, what triggers innovation in these markets, as well as the characteristics of that innovation.

The chapter will outline the definition of low-income markets for the purpose of this study, before exploring the literature on the factors that drive companies to enter low-income markets. It will then consider the challenges faced by companies seeking to engage the base of the pyramid, and will draw on the literature to argue that these challenges or constraints can act as triggers for innovation as companies seek to navigate low-income markets. Finally, the chapter will explore the literature on *how* companies innovate in low-income markets, exploring Christensen's theory of disruptive innovation (Christensen, 1997; Christensen and Raynor, 2003) as a possible framework for understanding innovation at the base of the pyramid.

2.2 Defining low-income markets

The phrase the 'Bottom of the Pyramid' was coined in 2002 by Prahalad and Hart, who argued in a seminal article that low-income markets represented a major opportunity for multi-national companies to do good while doing well. That article spawned a debate around what constitutes the 'bottom of the pyramid' and triggered discussion among academics, development institutions, companies and the media about doing business in low-income markets. Prahalad and Hart (2002) defined the bottom of the pyramid - later referred to as the 'base of the pyramid' - as the four billion people across the world who live on less that $1500 per year, in purchasing power parity terms. Prahalad in 2005 described the 'bottom of the pyramid' as those living on less than $2 per day (PPP). A study by the IFC, the private sector arm of the World Bank Group, and World Resources Institute (WRI), of low-income markets in 110 countries (Hammond, Kramer, Katz, Tran, Walker, 2007) broadened the definition of the base of the pyramid as those with annual incomes below $3,000 in local purchasing power.

Given the diversity of companies interviewed for the purpose of this study, the researcher has attempted to focus on companies serving the BOP marked as defined by the IFC -- $3,000 in local PPP -- but has also included firms that have taken steps to target the 'working poor', provided that this segment is distinct from their traditionally mid to high-income target market, and required a separate strategic approach.

2.3 Low-income markets: the opportunity and the drivers for entry

'Base of the Pyramid' (BoP) researchers have pointed to major opportunities in serving low-income markets, arguing that underserved communities in emerging markets represent one of the largest untapped market opportunities for multinational firms (Prahalad, 2005; Prahalad & Hammond, 2002; Prahalad & Hart, 2002). The debate has shifted since the term was first introduced from a debate around *whether* companies should enter low-income communities to a discussion about *how* to engage these customers successfully (Prahalad, 2010). It is nevertheless important to fully understand the rationale behind the decisions of large companies to enter low-income markets. The literature around the different drivers for low-income market entry will therefore be considered in the following section.

2.3.1 New growth markets

One of the most dominant drivers for entering low-income markets cited in the literature is simply that the BoP represents a major opportunity to create and capture vast new markets by converting consumer purchasing power into profit (Pitta, Guesalaga & Marshall, 2008). Prahalad (2005) argues that while individual consumers in low-income markets may have limited buying power, their collective purchasing power is significant due to the sheer volume of consumers, which provides enormous scale opportunities. Prahalad stated in 2005 that the BoP market constituted 4-5 billion people worth an annual $13 trillion at PPP. That figure has generated some debate among researchers, with one of Prahalad's main detractors, Karnani, arguing that the bottom of the pyramid market is worth only $1.2 trillion at 2002 PPP (Karnani, 2007). Nevertheless, the IFC and WRI study found that four billion people across the world who live in relative poverty have purchasing power representing a $5 trillion market at 2005 PPP (Hammond, Kramer, Katz, Tran, Walker, 2007) and argued that together, consumers in low-income markets offer significant commercial opportunity, and would benefit from a market-oriented approach from the private sector (Hammond *et al,* 2007).

2.3.2 Running out of road

In their model outlining the different sources of discontinuity that drive companies to innovate, Tidd, Bessant and Pavitt (2005) list 'Running out of road' as a key factor. They describe how firms in mature industries or markets may need to engage in radical or disruptive innovation to reposition themselves, or to find new market space to offset slower growth in traditional markets (Tidd *et al,* 2005). This is also reflected in literature on low-income markets, and is a factor that emerges particularly strongly in recent practitioner-focused articles, given a context where the financial crisis has dented consumer demand in the rich world, prompting companies to look to dynamic emerging markets for growth. Immelt *et al* (2009), for example, argued that global companies must not only enter low-income markets, but must view them as sources of innovation in order to compete with rapidly expanding emerging market champions. Taking a similar view, Prahalad and Mashelkar (2010) described how companies in India are starting to realise that catering purely to the rich domestic market limits their opportunity for growth, and are refocusing their efforts on targeting low-income markets and emerging consumers. The McKinsey consulting group echoed this view in a recent report on Africa, noting that companies will be unable to build sizeable businesses on the continent through premium goods alone, but will need to reinvent their business models to deliver the right products at the right price for the millions of Africans at the base of the pyramid (McKinsey, 2010).

2.3.3 Poverty alleviation

One of the core concepts introduced by Prahalad and Hart (2002) was the idea that by engaging the poor as consumers, companies can not only reach new markets, but also contribute to poverty alleviation. Prahalad developed this more altruistic motivation for entering low-income markets in his 2005 book, and Karnani discussed the concept, arguing that companies wishing to tackle poverty through business should rather focus on engaging the poor as producers rather than only consumers (2007). While companies entering the BoP are often focused on converting purchasing power to profit, they may also be driven by a desire to bring prosperity to the poor, alleviating poverty and ultimately birthing the markets of the future (Pitta *et al,* 2008; Vachani and Smith, 2008). Mendoza and Thelen (2008) examined how companies can make markets more inclusive for the poor, whilst Simansis and Hart (2008) call for inter-dependence between company and community where both are committed to each other's long term well-being and success.

2.3.4 Other drivers

Tidd et al (2005) also cited other drivers for new market entry in their model of discontinuous change, such as changes in regulation, as well as the emergence of new political rules. This is arguably particularly relevant for South Africa, given the fall of apartheid in 1994 and the resulting shift in political, economic and regulatory policy. These drivers have not been explored at length in the literature on low-income markets.

2.3.5 Conclusion

In summary, when discussing the drivers for firms to enter low-income markets, the literature cites: 1) the opportunity to unlock untapped consumer demand and 2) slowing growth in existing markets, as the primary factors influencing decision-makers. Researchers also touch on other drivers, which include 3) the moral imperative to help alleviate poverty, 4) the introduction of new regulation and 5) a change in political rules.

These different drivers will be used as a basis for the research propositions outlined in Chapter Three, and as a tool for guiding for the data collection and analysis process, which will be explained in Chapter Four.

2.4 Challenges and constraints in low-income markets: triggers for innovation?

2.4.1 Introduction

In order to understand innovation in a low-income context, the triggers of innovation must be explored. Innovation systems literature, most of which is rooted in developed world contexts, emphasises the importance of 'positive' factors in triggering innovation, such as technological advance (Abernathy & Utterback, 1978), sophisticated consumer demand (Foster, 1986; Von Hippel, 1988; Malerba, 2005), strong institutions and structures (Lundvall, 1992; Nelson, 2006) and geographical clustering (Ernst, 2002).

However, very little literature has been produced about the triggers of innovation in a low-income context. The BoP literature urges firms in low-income markets to innovate (Prahalad, 2010; Hammond and Prahalad, 2004; Bruton, 2010; Pitta *et al,* 2008; Sull, Ruelas-Goissi and Escobain, 2003; Anderson and Billou, 2007). Yet the 'positive' triggers outlined in the innovation literature such as strong institutions and sophisticated users are often absent in these markets. What, therefore, triggers innovation in low-income markets? This report proposes an alternative approach. Taking the old adage 'necessity is the mother of invention' as a starting pointing, and with reference to the literature on low-income markets, this report will propose that in a developing market context, 'negative' factors, such as limited customer buying power, lack of infrastructure and lack of skills (Prahalad 2005; Prahalad and Hart, 2002; Anderson and Markides, 2007; Simanis and Hart, 2009; Hammond and Prahalad, 2004; Anderson and Billou, 2007), often act as *triggers* for innovation, rather than the 'positive' factors cited in the innovation literature. These negative triggers arguably force companies to radically rethink their strategies, product offerings and business models, prompting more innovative solutions.

The following section will briefly explore the 'positive' triggers outlined in the innovation systems literature, before examining the different 'negative' factors related to operating in low-income markets that are cited in the literature on low-income markets.

2.4.2 Positive innovation triggers: a rich-world paradigm

Development economists and innovation specialists have argued that in order to build robust, high-growth economies, countries must build national systems of innovation (Niosi 2008; Lall, 1992; Lundvall, 1992; Nelson, 2006). This has led to a whole field of research around the elements that must be in place for the creation of national innovation systems. Developing countries have been urged to open their economies to capture the 'spillover' effects from the industrialised world (Niosi, 2008; Lall, 1992), to build strong learning organisations such as universities and research and development hubs (Nelson, 2006) and to strengthen all economic and institutional structures which affect "learning, searching and exploring", including government bodies, the venture capital industry, regulatory agencies and other market structures (Lundvall, 1992; Lundvall, Johnson, Anderson & Dalum, 2002). Some researchers have highlighted the emergence of new technology as a trigger for innovation and growth (Utterback, 1994; Niosi, 2008), while others stressed the need for collaboration between companies, knowledge institutions and other actors, which has led to the idea of regional clustering, the increasing returns hypothesis and research around regional innovation systems (Castellaci , Grodal, Mendonca, and Wibe, 2005; Lundvall, 1992; Ernst, 2002). The systems innovation literature has also spawned a sub-discipline on sectoral innovation, which argues that different sectors require different systems, and that understanding a sector requires an understanding of the supporting institutional and technological regimes (Malerba, 2005). While much of the literature on national systems of innovation has focused on policy and supply side triggers, some writers have also considered demand-side triggers, such as demand from an increasingly sophisticated and experimental user-base (Foster, 1986; Malerba, 2005).

However whilst the national innovation systems literature has provided insight into the triggers for innovation in developed markets, it has little to offer companies wishing to capitalise on the latent growth potential of low-income markets. Literature on national innovation systems assumes that developing countries are characterised by a narrow local knowledge base, weak local institutions and industries and limited sharing of resources (Ernst, 2002). Yet real-world examples, articles in the popular press, and the limited academic research published on innovation in low-income markets seem to suggest that innovation is thriving at the base of the pyramid, despite the lack of strong institutions, knowledge bases and resources, and that low-income markets are in fact becoming or have the potential to become a source of innovation for the rest of the world (Prahalad and Mashelkar, 2010; Immelt *et al*, 2009, Kaplinsky *et al,* 2009*;* Hart, 2010; Chataway, Tait and Wield, 2007). It is therefore clear that alternative triggers of innovation are at work in low-income markets, ones which do not fit into the frameworks provided by the western-centric literature on innovation systems. These will be discussed below.

2.4.3 Negative triggers: an innovation model for low-income markets?

The literature on low-income markets provides some insight into the alternative innovation triggers which may characterise business at the base of the pyramid. Researchers highlight the significant challenges involved in engaging low-income markets, such as lack of infrastructure or limited consumer buying power (Prahalad 2005; Prahalad & Hart, 2002; Simanis and Hart, 2009; Hammond and Prahalad, 2004; Anderson & Billou, 2007). In order to navigate and circumvent these challenges, academics have argued that companies must adopt a fundamentally different approach to doing business in low-income markets, by adopting innovative new business models, products and processes, noting that a 'business as usual' approach is not good enough (Prahalad 2005; Bruton, 2010; Craig and Hart, 2001; Simansis and Hart, 2009; Pitta *et al,* 2008; Sull *et al*, 2003; Anderson and Billou, 2007). Strategy and innovation writers have urged firms to approach innovation by thinking about how to remove barriers to consumption, such as insufficient wealth, access, skill or time (Johnson, Christensen and Kagermann, 2005; Anthony, Eyring and Gibson, 2006). Similarly, Sull *et al* (2003) argue that while developing market firms in general lack the 'positive' triggers described above, such as state-of-the-art R&D labs, liquid markets and strong academic institutions, they often adopt a "customer-pull" approach to innovation, finding innovative ways to meet the needs of customers without relying on cutting-edge technology.

The literature, therefore, tends to view the challenges inherent in low-income markets as constraints that must be *circumvented* through innovation. This report proposes taking this idea one step further, and viewing these so-called constraints as *triggers* for innovation. Prahalad and Mashelkar (2010) provide examples in a recent article for practitioners showing how Indian companies have innovated around the challenges of low-income markets, and arguing that the "potent combination of constraints and ambitions has ignited a new genre of innovation" in Indian companies. In a developing market context, therefore, it can be argued that it is these 'negative' factors which often act as triggers for innovation, rather than the 'positive' triggers cited in the innovation literature. These negative factors often trigger more innovative solutions than might have otherwise been adopted, and may even create competitive advantage for the firm (Prahalad and Mashelkar, 2010).

Five potential 'negative' triggers were identified in the literature on low-income markets: lack of infrastructure, limited buying power, lack of skills/low literacy rates, conflict and corruption (Prahalad 2005; Prahalad and Hart, 2002; Anderson and Markides, 2007; Simanis and Hart, 2009; Hammond and Prahalad, 2004; Anderson & Billou, 2007; Vachani & Smith, 2008). The chapter will briefly consider each factor.

2.4.4 Lack of infrastructure

Several researchers cited the infrastructural challenge as a potential constraint for firms attempting to do business in low-income markets (Vachani and Smith, 2008; Prahalad, 2005; Hammond and Prahalad, 2004, Anderson and Billou, 2007) – a constraint which could also be viewed as a trigger for innovation. Infrastructure in the developing world is often poor, requiring greater investment from companies (Hammond and Prahalad, 2004). A recent McKinsey report on Africa cited poor infrastructure as one of the foremost challenges facing companies attempting to expand into the world's poorest continent (McKinsey, 2010).

Anderson and Billou (2007) also explored the challenge of poor infrastructure, particular with regard to distribution, and cited "access" as one of the key elements of their 'Four As' model for doing business in low-income markets. Companies have been urged to innovate around distribution to circumvent this challenge, developing alternative routes to market given the lack of formal distribution channels in some markets (Prahalad, 2005). In one example of innovation as a direct response to the infrastructure challenge, a cellular company in the Philippines developed an innovative over-the-air payment system which ultimately proved to be cheaper and more efficient than a traditional first-world system (Anderson and Billlou, 2007), illustrating how lack of infrastructure is a key challenge for companies doing business in low-income markets, but one which may sometimes trigger innovation.

2.4.5 Limited customer buying power

The challenge of building a profitable business model in a market where customers live on just $2 per day is one that is mentioned repeatedly in the literature on low-income markets, and prompted much of the initial debate about whether a theoretical market at the base of the pyramid was in fact a miracle or a mirage (Karnani, 2007). Hammond and Prahalad argue that the biggest constraint stopping firms from entering low-income markets is the “uncritical” acceptance of the myth that the poor have no buying poor. They argue that whilst buying power may be limited, the volume of consumers at the base of the pyramid make it an attractive market, and that firms simply need to change the way they approach and think about the market (Hammond and Prahalad, 2004). Arguably, firms should shed the dominant logic which dictates that they cannot serve low-income markets with their current cost structures, and that the poor cannot afford the goods in the format they offer (Prahalad, 2005). They must instead reframe their value propositions around new price-performance metrics, requiring fresh and innovative thinking (Prahalad and Hart, 2002). Affordability is listed as a key element in the Four As model (Anderson and Billou, 2007), while ‘wealth’ is listed as a barrier to consumption that must be removed if companies are to make their offerings accessible to the poor (Anthony, Johnson, Sinfield, and Altman*, *2008*).*
Clearly limited buying power is a challenge or constraint that features strongly in the literature, and one which arguably could be turned into an innovation trigger.

2.4.6 Illiteracy, corruption and conflict

The literature on low-income markets also touches on the problems of illiteracy, corruption and conflict as potential constraints or challenges for companies operating in low-income markets (Prahalad, 2005; Hammond and Prahalad 2004; Anderson and Billou, 2007; Mendoza and Thelen, 2008; Vachani and Smith, 2008), however these issues are unpacked in less detail. These factors will also be considered as potential triggers for innovation.

2.4.7 Conclusion

As discussed, much of the innovation literature highlights the importance of 'positive' factors such as strong institutions and market infrastructure, collaborative learning, technological advance and the demands of sophisticated users, as triggers for innovation in a developed world context. There has been little literature on the triggers for innovation in developing countries. This report proposes that in developing market context, it is in fact '*negative*' factors, such as limited customer buying power, lack of infrastructure and lack of skills, which often act as triggers for innovation, rather than the 'positive' factors cited in the innovation literature. These negative triggers arguably force companies to rethink their strategies, product offerings and business models, prompting more innovative solutions and creating competitive advantage for the firm. The main negative factors, or triggers, identified in the literature were: 1) lack of infrastructure 2) limited customer buying power 3) low levels of literacy 4) conflict and 5) corruption. The idea that innovation in low-income markets is often triggered by these five 'negative' factors will form the basis of one of the propositions outlined in chapter three.

2.5 Disruptive Innovation: a framework for innovation in low-income markets?

2.5.1 Introduction

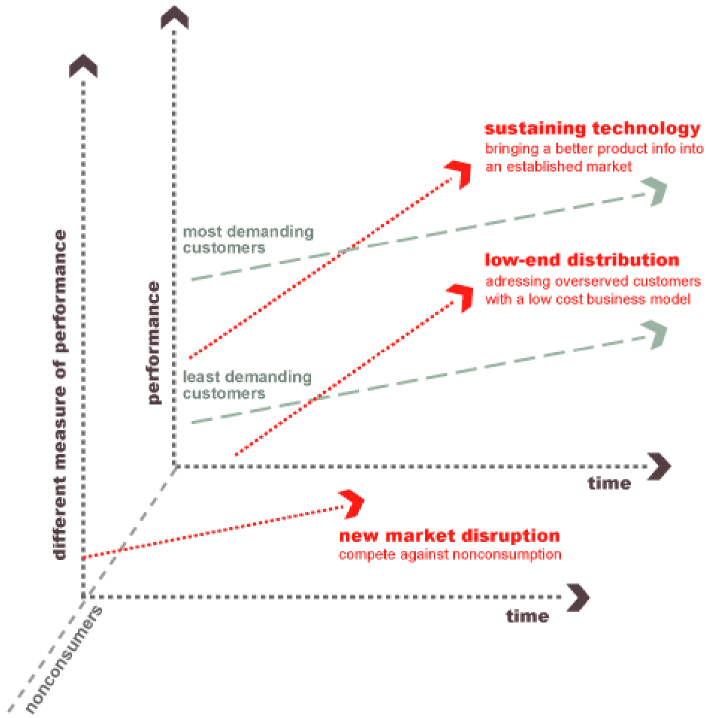
Having examined the literature on what drives companies to enter low-income markets, and on what triggers innovation in these markets, this paper will now turn to a consideration of *how* companies should innovate in low-income markets. It will give particular attention to Clayton's Christensen theory of disruptive innovation and will explore the idea of using disruptive innovation as a framework to describe how companies innovate in low-income markets.

2.5.2 Principles of Disruptive Innovation

According to Clayton Christensen, who developed the highly influential theory of disruptive innovation, most companies focus their energies on 'sustaining technologies' rather than disruptive ones (Christensen 1997). Sustaining innovations or technologies occur when a company essentially offers more of the same to its existing customers: better, faster, bigger. Sustaining innovations might be incremental or radical, but always involve improvements to products and services along the performance dimensions that are valued by existing or mainstream customers (Christensen 1997). The problem with this approach, argued Christensen, is that technologies usually progress faster than market demand, and firms that focus on sustaining innovation therefore eventually overshoot their market, creating products that have more features than their customers can absorb and sometimes more than they are willing to pay for (Christensen, 1997) (See Figure 1). Christensen therefore advocated a different approach, and argued that firms could disrupt markets by launching innovations that brought a different value proposition to the market. Unlike sustaining innovation, disruptive innovations generally *underperform* established products in mainstream markets, and may act as a weak substitute for the existing product in the eyes of its mainstream customers (Christensen, 1997). But the disruptive innovation also offers different features that are valued by fringe markets or new customers: they are often "cheaper, simpler, smaller and frequently more convenient to use" (Christensen, 1997, pxviii). (Christensen initially used the phrase 'disruptive technology' but later changed it to the broader 'disruptive innovation' (Christensen and Raynor, 2003)). Disruptive technologies or products improve with time, and eventually encroach into the space occupied by mainstream competitors, redefining the rules under which established players operate (Christensen, 1997; Christensen and Raynor, 2003) and ultimately changing the metrics of performance (Danneels, 2004). Disruptive innovations generate growth for companies and economies, but also make previously out-of-reach products and services accessible to millions of consumers (Ahlstrom, 2010).

The disruptive innovation theory was later developed to distinguish between low-end disruptions and new market disruptions (Christensen and Raynor, 2003) (See Figure 1). Low-end disruptions are those that attack the least-profitable and most over-served customers by offering lower-cost alternatives, but do not create new markets. New-market disruptions compete with non-consumption by offering products that are so much more affordable, simpler to use and more convenient, that new populations are able to access them, and thus whole new markets are created (Christensen and Raynor, 2003). This study is most concerned with new-market disruption, because of its relevance to emerging low-income markets.

Figure 2.1: The Disruptive Innovation Model



Christensen and Raynor: The Innovator's Solution (2003)

(http://www.provenmodels.com/595)

2.5.3 Disruptive Innovation and low-income markets

Several commentators have begun to draw parallels between the requirements of low-income consumers and the typical characteristics of disruptive innovations, noting that disruptive innovation might offer a valuable framework within which to understand strategy at the base of the pyramid (Hart & Christensen, 2002; Ahlstrom, 2010). Disruptive innovation is not only about displacing competitors, but about generating growth through enlarging existing markets and creating new ones, thanks to a huge increase in aggregate demand for the products of an industry (Utterback & Acee, 2005). This increase in demand is created because companies compete against non-consumption, rather than only against other competitors, which makes the theory of disruptive innovation highly applicable to emerging or low-income markets (Hart and Christensen, 2002). Hart and Christensen posited that "new waves of disruptive technology deployed by companies making a great leap down the pyramid have an extraordinary potential to generate growth" (2002). Ahlstrom echoed this view in a recent article on the potential benefits of applying disruptive innovation to low-income markets for companies, economies and consumers. He noted that disruptive innovations create major new growth for industries by expanding the customer base, whilst also bringing more affordable and accessible offerings to those who were previously excluded (2010). Given that disruptive innovations tend to be weak substitutes for existing products but are more accessible in terms of price, convenience or simplicity (Ahlstrom, 2010; Antony *et al,* 2008), disruptive innovation would therefore work well in new or less demanding contexts (Ahlstrom, 2010).

Recent research around low-income markets has also illustrated that innovators from emerging markets are threatening to disrupt innovation leaders in the West, suggesting that local companies in developing markets are already applying Christensen's theory to reach new groups of customers. Some researchers have pointed to the potential of emerging market countries to *drive* innovation, predicting – in a nod to Christensen -- that products developed in these environments will eventually disrupt the developed world status-quo (Elias, 2006; Kaplinksy *et al,* 2009). Kaplinksy *et al* argue that many of the existing innovation leaders in the West struggle to grasp the disruptive opportunity in low-income markets and lack the cost structures to exploit it. Companies from the emerging world will arguably become the future global champions of innovation, as their low-cost offerings – initially rooted in low-income markets – "trickle-up" to consumers in rich countries (Hart, 2010). Immelt *et al* (2009) argued that global companies need to engage in 'reverse innovation', where they develop new disruptive products in low-income markets, which are then exported back to the rich world. This pattern of encroachment, as disruptive innovations extend back up the economic pyramid, goes to the core of Christensen's theory of disruptive innovation.

The literature therefore suggests that disruptive innovation could arguably bring many more products to underserved consumers, whilst generating growth for the companies involved (Hart and Christensen, 2002; Ahlstrom, 2010; Utterback and Acee, 2005). Engaging in disruptive innovation in emerging markets may also help enhance a company's competitive advantage back in its traditional markets (Kaplinsky *et al,* 2009; Immelt *et al*, 2009; Hart, 2010). But despite several articles noting the applicability of Christensen's theory of disruptive innovation for low-income markets, there has been, to this researcher's knowledge, no attempt to test empirically whether companies do in fact engage in disruptive innovation when they enter low-income markets. This report therefore intends to test the proposition that disruptive innovation is an appropriate framework for companies seeking to engage the base of the pyramid, and to examine whether companies exhibit the elements of disruptive innovation when they engage with low-income markets.

2.5.4 The Elements of Disruptive Innovation

The following section will identify and unpack each element of disruptive innovation that is cited in the literature. These elements will form the basis of the third research proposition outlined in Chapter Three.

2.5.5 Affordability

Christensen repeatedly stated that disruptive technologies or products are likely to be cheaper than established offerings (Christensen, 1997). A disruptive innovation should remove the 'wealth' barrier to reach new customers, and should be aimed at customers who want a product which costs less than established products (Christensen, 1997; Anthony *et al*, 2008). While some have argued that disruptive technologies need not necessarily be characterised by lower price (Schmidt & Dreuhl, 2008), most agree that greater affordability is a typical characteristic of a disruptive product or technology.

The focus on affordability is also a common theme in the literature on low-income markets (Pitta *et al,* 2008). The poor's limited buying power means they are unable to send the normal price signals that firms would respond to, meaning they are often excluded from consuming the goods and services designed for higher and middle income customers (Mendoza and Thelen, 2008). Affordability is cited as a crucial element of a firm's BoP offering in the Four As model given that many BoP customers spend as much 60 percent of their income of food, leaving little leftover for discretionary items (Anderson and Billou, 2007). They also note that cashflow is much less predictable in low-income markets, with many customers vulnerable to shocks that make their income volatile. This means that products need to be cheap enough and packaged in small enough quantities for consumers to pay 'as they go' (Anderson and Billou, 2007; Mendoza and Thelen, 2008). Prahalad instructs companies to completely re-conceptualise their 'price-performance envelope', making quantum jumps in price reduction of 30-100 times (Prahalad, 2010), while Prahalad and

Mashelkar (2010) cite 'value for money' as a critical element of offerings targeting low-income markets.

2.5.6 Different dimensions of performance

Disruptive innovation is about altering the configuration of a product or service to meet the needs of new customers. This alters the basis of competition by "changing the performance metrics along which firms compete" (Danneels, 2004). Disruptive innovations sometimes underperform established products along existing parameters, but instead offer value along different dimensions (Christensen, 1997). This is consistent with the literature on low-income markets, which stresses that offerings designed for low-income markets must be based on an acute understanding of the customer's needs and on the performance parameters they value (Simansis and Hart, 2009; Markides & Oyon, 2010). The BoP must not be seen as an extension of existing markets, which can be offered stripped down or modified versions of existing products, but rather as a distinct set of customers looking for a different set of value attributes (Markides & Oyon, 2010; Sull *et al,* 2003; Sehgal *et al*, 2010). Once a company truly understands a group of customers, it must redesign products from scratch, emphasising different dimensions of value and changing the performance metrics along which firms compete (Danneels, 2004; Pitta *et al,* 2008). Some researchers have extended this argument even further, positing that new products and offerings should in fact emerge from communities themselves, through a process of deep partnerships with consumers and co-creation (Simansis and Hart, 2008; Jose, 2008).

2.5.7 Simplicity

Disruptive products are simpler than established versions (Christensen, 1997). They remove the 'skills' barrier to reach new customers, and should be aimed at customers who want a product that is easy to use (Christensen, 1997). Simplicity may mean fewer features and functions, and may translate into smaller products (Christensen, 1997).

The literature on low-income markets underscores the importance of simplified offerings from both the perspective of affordability and literacy. Simpler products, it is argued, are cheaper to produce and can therefore be priced accordingly (Pitta, *et al,* 2008; Hart, 2005). Functionality should be stressed over form when designing BoP offerings (Prahalad, 2010). Higher rates of illiteracy and a lower skills base may also necessitate simpler products than those designed for middle or higher income segments, particularly in sectors with more complex offerings, such as financial services (Mendoza and Thelen, 2008). Reducing the complexity embedded in a product or service will increase accessibility in low-income markets (Jose, 2008).

2.5.8 Convenience

A key element of disruptive innovation is convenience. An idea only has disruptive potential if the product or service can be delivered in a location that is convenient to the customer (Christensen, 1997). The service or product must also be easy to use and efficient. The innovation must help the customer do a job she is already trying to do more "easily and effectively" (Christensen, Johnson and Rigby, 2002).

Again, this is reflected in the literature on low-income markets, which stresses the need for firms to reinvent distribution channels to reach low-income consumers and overcome the 'access' barrier (Hammond and Prahalad, 2004). Convenience may require creative and innovative thinking around distribution channels in order to secure access for low-income customers (Anderson and Billou, 2007). This might involve new applications of technology, or redesigning business processes (Vachani and Smith, 2008). Hindustan Unilever in India and Avon Products in Brazil have adopted innovative approaches to convenience, developing vast direct-distribution networks into rural and remote areas to bring products to new groups of customers (Hammond and Prahalad, 2004).

2.5.9 New business models, new cost structures, lower margins

In order to sell at a lower price, disruptive innovations must be produced for less, and will probably return lower gross margins (Christensen, Johnson and Barragree, 2000). New cost structures and lower margins typically involve a change in business model, in order to improve efficiency (Prahalad 2005; Kaplinksy *et al*, 2009). Disruptive business model innovation is particularly appropriate when a firm is entering a new market where the current business model is inappropriate (Markides, 2006), a view that translates well to the realities of low-income markets. (While the term 'business model' may appear to encompass several of the separately-listed elements of disruptive innovation, it is nevertheless discussed as an element in itself in both the innovation and the low-income market literature, and will therefore be treated in this report as a stand-alone element of disruptive innovation).

Business model change is also discussed at length in the literature on low-income markets, with a broad consensus that serving emerging consumers requires a different business model (Pitta *et al,* 2008*;* Chesbrough, Ahern, Finn and Guerraz*,* 2006; Prahalad and Hart, 2002). Companies hoping to operate in low-income markets have been pressed to overhaul their existing, and often antiquated, business models that were primarily developed for the rich world, and to focus on high-volume-low-margin models, rather than low-volume-high-margin (Hammond and Prahalad, 2004; Anderson and Markides, 2007). "Retrofitting" existing business models will not work (Prahalad, 2010). The literature on low-income markets sometimes refers to business model change in the context of a company's internal processes and structures, arguing that serving emerging consumers will require new business solutions across the company's operations, including buying, manufacturing, marketing distributing and advertising, and involving comprehensive organisational change (Olsen & Boxembaum, 2009). Prahalad and Mashelkar (2010) echo this view, noting that Indian companies that have successfully engaged low-income markets have transformed almost every element of the value chain, from recruitment and the supply chain to the creation of new ecosystems. Business model innovation, including new revenue and profit models, new approaches to manufacturing, logistics and distribution, are viewed by some as even more important than the features, functionalities and technology of a product offering (Anthony *et al* , 2008; Sull *et al,* 2003).

The literature on business model innovation in low-income markets stresses the importance of revamping cost structures. Christensen *et al* noted that one of the major challenges for companies used to middle to higher income markets when attempting to enter lower-income markets was the fact that opportunities in low-income markets make no sense when viewed through the prism of their existing business models and structures (Christensen *et al,* 2001). They therefore need to create new business models, with new cost structures. On a practical note, companies engaging the BoP have been urged to reverse their approach to cost, starting with the price the market can bear and working backwards to reach the cost point, rather than taking the cost of goods, and adding margin to reach the price point (Prahalad and Mashelkar, 2010; Prahalad, 2005).

2.5.10 Architecture overhaul

Christensen found that in the evolution of the disk drive industry, disruptors reconfigured the product architecture from scratch, while incumbents focused on component improvement (Christensen 1997). While disruptive innovation does not necessarily involve inventing new technology, it does require the reconfiguration of existing technology to meet a new set of customer needs (Christensen 1997; Christensen and Raynor 2003; Danneels, 2004), which may mean new architecture, effectively reinventing the product from scratch. Christensen, Suarez and Utterback (1998) found that firms that targeted new markets with architectural innovation tended to be more successful than those innovating in component technology.

In the literature on low-income markets, companies are also urged to develop products from scratch, rather than simply modifying existing rich-world offerings, emphasising the different performance parameters valued by BoP consumers, as discussed above (Pitta *et al,* 2008; Sehgal, 2010).

2.5.11 Encroachment and Cannibalisation

A crucial element of disruptive innovation is a disruptive product or service's eventual encroachment into the mainstream market. Christensen (1997) argued that while disruptors initially appeal to unattractive or new groups of customers that have been largely ignored by incumbents, the new technology eventually improves along the traditional performance parameters to the extent that it becomes attractive to mainstream customers. The new configuration of technology and customer needs becomes the standard and existing players are disrupted (Christensen 1997).

In order to avoid failure in the face of disruptive new entrants, incumbents must become the disruptors (Christensen and Raynor, 2003), which may mean cannibalising existing higher-margin products. Ghemawat (1991) stated that a willingness to cannibalise existing offerings is a key factor for the growth and survival of incumbent firms, while Govindarajan and Kapelle (2004) posited that excessive focus on existing customers and a reticence to cannibalise the existing offering limits a firm's capacity to develop disruptive innovation. Utterback and Acee (2005) noted that the main challenge for incumbents facing disruptive change was their commitment to old technology and ways of working.

In the context of low-income markets, cannibalisation may mean that offerings developed for low-income markets could encroach into the mainstream domestic market, cannibalising a company's existing higher-margin offering, and those of its competitors. In a global context, a firm's willingness to cannibalise its existing high-end offering with products for low-income markets may mean that offerings developed for the poor eventually become the standard for value segments in developed countries (Immelt *et al* 2009; Kaplinsky *et al,* 2009). Embracing this risk and treating low-income markets as a source of innovation for export to the rich world may result in the rejuvenation of multinationals struggling with moribund western markets (Prahalad, 2010).

It is important, however, to note that while encroachment into the mainstream market space is usually immediate in the context of low-end disruption, it may be delayed when new-market disruption occurs, given the time-lag necessary for technology to improve to the level where it becomes attractive to existing customers (Schmidt and Dreuhl, 2008). Therefore while cannibalisation is an element that characterises new-market disruptive innovation, its absence does not mean that disruptive innovation has not occurred.

2.5.12 Summary of elements

The elements which characterise disruptive innovation are summarised below. Typically, a disruptive innovation will include at least some of these elements:

- Affordability
- Simplicity
- Convenience
- New performance parameters
- New business models, including different cost structures
- Architectural product overhaul
- Cannibalisation of firm's existing offering

As illustrated above, these elements feature in both the literature on disruptive innovation AND in the literature on low-income markets, suggesting that there is significant overlap between these two theory bases. This would suggest that companies engaging in low-income markets may in fact be practicing disruptive innovation, and may exhibit the elements listed above. If so, the theory of disruptive innovation may provide a useful framework to describe the way in which companies are innovating in low-income markets. This idea will form the basis for the third proposition to be tested in this research report.

2.6 Conclusion to Chapter Two

This chapter unpacked the literature around innovation, and around low-income markets, and explored several ideas about where the two might overlap. It considered the literature on what drives companies to enter low-income markets, identifying several recurrent themes, including the opportunity for growth in underserved markets and the threat of maturing existing markets. It then looked at the triggers for innovation in low-income markets, and explored the idea that *negative* factors trigger innovation in developing markets, rather than the *positive* triggers cited in the innovation literature that has emerged from a western paradigm. Several different potential negative triggers were extracted from the literature on low-income markets, including lack of infrastructure, limited buying power and illiteracy. Finally, the chapter considered the literature around *how* companies innovate at the base of the pyramid, and explored the idea that the theory of disruptive innovation might be a useful framework for understanding innovation in low-income markets. These three themes: the drivers for market entry, the triggers for innovation, and the theory of disruptive innovation as a framework for innovation in low-income markets, will form the basis of the research propositions explained in chapter three.

3.0 CHAPTER THREE: RESEARCH PROPOSITIONS

3.1 Introduction

The previous chapter discussed the literature on innovation and low-income markets, and surfaced three important themes: 1) what drives companies to enter low-income markets? 2) what triggers innovation in these markets? and 3) how do companies innovate at the base of the pyramid. This chapter will lay out the three propositions that will be tested in this report.

3.2 Research Proposition One

Companies are driven to enter low-income markets by:

- the opportunity for new growth
- the threat that existing markets are maturing
- a moral imperative to alleviate poverty
- changes in regulation
- emergence of new political rules

3.3 Research Proposition Two

In low-income markets, innovation is often triggered by '*negative*' factors, which may force companies to produce innovative solutions, sometimes creating competitive advantage for the firm. These negative triggers include:

- lack of infrastructure
- limited buying power

- lack of skills/low levels of literacy
- conflict
- corruption

3.4 Research Proposition Three

Companies operating in low-income markets often engage in disruptive innovation. Their offerings and strategies are frequently characterised by:

- Affordability
- Simplicity
- Different performance parameters
- Convenience
- New business models, including different cost structures
- Product architecture overhaul
- Cannibalisation of/encroachment into existing offering

4.0 CHAPTER FOUR – RESEARCH METHODOLOGY

4.1 Introduction

The previous chapter explained the research propositions that will tested in this research report. These propositions focus on the drivers for companies entering low-income markets, the triggers for innovation in such markets, and the idea that firms exhibit the elements of disruptive innovation when they innovate in these markets. This chapter will now explain the methodology that will be used to test the propositions outlined in chapter three.

4.2 Research Method

4.2.1 Rationale for method

This study used a qualitative, blended inductive-deductive approach, formulating propositions derived from the theory base, then testing and modifying those propositions through semi-structured interviews. Content and comparative analysis was then used to draw conclusions. The following section explains the rationale for the proposed method.

The research was exploratory, with confirmatory and descriptive elements, and aimed to understand a phenomenon – in this case, innovation in low-income markets – from the perspectives of those involved (Welman and Kruger, 2001). Qualitative research is recommended when a researcher aims to interpret a phenomenon in a specific context rather than simply establishing a link between two variables (Leedy and Ormrod, 2001). Exploratory and qualitative research is also appropriate when not enough is known about a phenomenon for standardised instruments to have been developed (Patton, 2002), and when an ambiguous problem needs to be clarified (Zikmund, 2003). As noted in the literature review, the innovation theory base has emerged from a developed world paradigm, and innovation frameworks have not been empirically tested in the low-income market context. A qualitative, largely exploratory approach was therefore considered most appropriate for this research study, given that it aimed to contribute to building innovation theory in a developing world context.

Some qualitative researchers advocate a purely inductive approach to qualitative research, allowing for the emergence of new meanings and gestalts, without the interference of prior theory and propositions (Saunders, Lewis and Thornhill, 2009). Researchers closer to a realist paradigm, such as Yin (2003), call for tightly structured hypotheses to guide the data collection and analysis process. For this study, which sought to test broad propositions in a new context, whilst remaining open to new meanings and realities, a hybrid approach was appropriate. As Perry notes, "pure induction without prior theory might prevent the researcher from benefitting from existing theory, just as pure deduction might prevent the development of new and useful theory" (Perry, 2003, p309). Propositions were therefore derived from the innovation theory base, a process that was covered in detail in Chapter Two and Chapter Three. These propositions provided a conceptual framework and guided data collection and analysis. They were tested, verified and modified against the reality that emerged from the data, leading to conclusions about the nature of innovation in low-income markets (Patton, 2002; Saunders *et al*, 2009). It is important to note that while qualitative findings can be replicated, and sometimes generalised to theory (Yin, 2003), they cannot be inferred across the entire population given the small sample size. This study aimed to formulate theoretical conclusions which could later be tested.

4.2.2 Research Process

The research project took the form of a two-phase qualitative study, where a thorough review of the literature surfaced propositions which were tested.

Phase one involved a detailed review of the literature to surface the different drivers for new-market entry, the possible triggers for innovation in a low-income market context, as well as the characteristics of disruptive innovation. This process was discussed in detail in chapter two, and the results were used to formulate the propositions listed in chapter three. These initial propositions were then tested, through semi-structured interviews, as discussed below. The propositions informed the interview guide used for data collection, and were used to guide analysis. A list of the constructs surfaced from the literature review are provided at Appendix 3.

Phase two involved a series of face-to-face semi-structured interviews with 19 respondents from 11 different companies that have traditionally served mid to high income markets, but have moved into engaging with low-income markets relatively recently. Respondents who were deemed to have particular knowledge within the relevant unit of the organisation were approached (Welman & Kruger, 2001).

The semi-structured interview is useful when several respondents are being interviewed, because it provides some standardisation, allowing for comparative analysis, whilst leaving room for some spontaneity, as well as interviewer probes for clarification or elaboration purposes (Welman & Kruger, 2001). It allows for the hybrid deductive/inductive approach that is suited to case studies (Perry, 2003), but involves one source of data – the interview – rather than multiple sources.

4.3 Population and Unit of Analysis

The population of relevance for the study was the senior manager at a business unit in a for-profit company that engages with populations in South Africa that the company would view as 'low-income' as a market of consumers. The study focused on companies operating in South Africa due to the location of the researcher and her network of contacts.

The unit of analysis was the perspective of the individual managers on the nature of innovation in low-income markets.

4.4 Size and nature of the sample

4.4.1 Sampling procedure

Qualitative samples tend to be purposive, or snowball, rather than random, with preference often give to key informants who have more information or richer experience on account of their position (Welman & Kruger, 2001). No sampling frame for this study existed, therefore respondents were identified through the Base of the Pyramid hub run by the Gordon Institute of Business Science as well as the researcher's own contacts. Senior, well-informed managers were selected. They were purposively sampled based on accessibility and with preference given according to the extent of the company's engagement with low-income markets.

Patton states that there are no rules for sample size in qualitative inquiry, noting that the extent of validity, meaningfulness and insight depend more on the richness of the information gathered than the size (2002). Given that the study examined innovation in a low-income market context across several different industries, a sample of 19 was deemed sufficient to draw conclusions that could be generalised to theory.

4.4.2 Companies interviewed

All companies interviewed operate in both mid to high income, or 'traditional' markets, as well as low-income markets in South Africa. Most of the companies entered low-income markets more recently. The majority of companies interviewed are South African, although two multi-national firms with South African operations were also included. Some of the companies interviewed have been extremely successful in low-income markets, some are breaking even but are less profitable than in their traditional markets, and some are still running at a loss but expect to break even shortly. A few companies are still experimenting with base of the pyramid models, and do not expect to break even soon. Companies across various different industries were interviewed. Companies were engaging with a range of different segments within the 'base of the pyramid' – some serving the 'working poor' and others addressing the needs of the rural poor. In all cases, the companies had taken a deliberate decision to engage with a market segment viewed as distinct from the traditional mid to high end customers, and which the company itself viewed as 'low-income'.

The table below provides some information about the companies interviewed. It shows whether the company is headquartered in South Africa or overseas, and whether the respondents considered the company to be either a) successful in low-income markets, b) profitable but not yet highly successful, c) still losing money but with profit in sight, or d) still struggling to find a profitable model.

Table 4.1: Companies interviewed

Sector/ Company	S.African	International	Successful	Profitable	Loss-making but break-even in sight	Struggling
Fin Services						
Bank A	Y				Y	
Bank B	Y		Y			
Bank C	Y					Y
Health Insurer	Y		Y			
Consumer						
Dairy		Y		Y*		
Beverage A	Y		Y			
Beverage B	Y		Y			
Media	Y		Y			
Tech						
Tech A		Y		Y**		
Retail						
Retail A	Y			Y		
Retail B	Y			Y		

* The Dairy firm was profitable in low-income markets, but was comfortable running at significantly lower margins than in other markets, and does not have a strategy for aggressively improving margins and growth.

*The Tech firm was largely organised around products rather than markets and did not have a clearly defined unit for low-income markets in South Africa. Respondents said some low-income offerings had been highly successful, while others operated according to CSI or market development objectives and were not aimed at turning significant profits.

A list of interviewees is provided at Appendix 1

4.5 Data Collection and Analysis

4.5.1 Overview of process

Qualitative research is an iterative process, with data collection, analysis and refinement of propositions an interrelated and interactive set of processes (Kvale, 2007). A combination of content, narrative and comparative analysis was used to test and refine the theory-based propositions (Yin, 2003; Patton, 2002). While comparative analysis as advocated by Yin (2003) is usually applied to cases, semi-structured interviews were used for this study, given time and resource constraints and the wide range of firms the researchers wish to interview.

The following broad data collection and analysis process was followed (Saunders *et al,* 2009; Patton, 2002; Welman and Kruger, 2001; Kvale, 2007; Miles and Huberman, 1994):

- Conduct first interview
- Transcribe interview from tape recording or notes.
- Capture reflective and analytical researcher notes for use in future interviews or analysis.
- Synthesise and organise researcher notes according to codes and categories determined by propositions. Note any new themes emerging, and adjust interview guide accordingly to allow for further exploration of the new themes.
- Repeat the above steps for subsequent interviews.
- Once interviews are completed, conduct content and narrative analysis on individual cases, identifying which themes and patterns are most prominent and noting particularly interesting individual findings.

- 'Stack' (Miles and Huberman, 1994) individual findings within a meta-matrix to compare findings across the sample and identify the most relevant variables.
- Use the meta-matrix to conduct final content analysis, synthesising final propositions.

4.5.2 Data Collection

Semi-structured interviews were used for the primary data collection phase of the study. An interview guide was prepared, based on the propositions that emerge from phase one (see Appendix 2 for interview guide). A minimal response technique was used, along with some paraphrasing, summarising and clarifying techniques to allow the researcher to test her own understanding and to sharpen the focus of vague comments. Interviews began with an invitation to 'tell the story' of the company's engagement with low-income markets and were scheduled for 1-1/2 hours.

4.5.3 Data Analysis

As explained above, the study used a combination of content, comparative and narrative analysis. Each interview was analysed using content and narrative analysis, and a final comparative analysis was conducted to compare results across units of analysis and across variables using a meta-matrix (Miles & Huberman, 1994).

Content analysis is a way of systematically analysing unstructured interviews, identifying the incidence of themes, and the way in which themes are portrayed (Welman and Kruger, 2001), while narrative analysis retains the richness of the data, and allows patterns to develop. For this study, it was not appropriate to conduct rigorous frequency analysis, given that the interviews were only semi-structured and the propositions relatively broad, but it was deemed useful to quantify broadly which themes were noted by the most number of respondents. The constructs that emerged from the theory base in phase one of the study were used to develop a coding system. For each interview, it was noted whether each construct or 'code' was mentioned by a respondent as a relevant factor in their experience of engaging with low-income markets. For example, when testing whether the elements of disruptive innovation are exhibited when a firm engages with low-income markets (Proposition three), the construct 'affordability' would be considered relevant if a respondent talked about 'lower price points' or 'more affordable' offerings. The number of times such phrases were used was not deemed relevant for this particular study. It was not an attempt to provide hard, generalisable data, but to provide an indication as to which factors appear to be the most significant and widespread in the opinion of the respondents. In order to provide depth and context, the researcher also drew upon patterns and meanings that emerged from the data in order to rank the concepts in order of importance. This depth and complexity is captured in Chapter Five.

New constructs were also introduced as they emerge from the data. The different constructs were tallied across interviews, ranked and presented in tables for each proposition.

4.6 Data Validity and Reliability

Qualitative research is generally interested in exploring a phenomenon in a specific and current context, and therefore is not approached with the same understanding of reliability and validity as quantitative research (Saunders *et al*, 2009; Miles and Huberman, 1994). However, it must meet the same standards or rigour.

Reliability in research is concerned with consistency. Qualitative research does not use standardised methods, and is therefore not necessarily intended to be repeatable (Saunders *et al*, 2009). However the process should be as transparent as possible, meaning procedures must be thoroughly documented. In order to ensure reliability, the researcher kept methodology notes during the research process (Saunders *et al*, 2009).

Validity is concerned with whether a researcher is measuring what she wishes to test, and whether the findings are plausible and can be applied beyond the case in question (Yin, 2003; Saunders *et al*, 2009). In order to improve construct validity, a consistency matrix was compiled, showing how constructs were measured. Researcher bias and inexperience was mitigated by enlisting the advice of a more experienced researcher.

Qualitative research does not seek statistical generalisation across a population, given its concern with a phenomenon in a specific time and place. Yin (2003) noted that replication of propositions across multiple cases – or in this case, samples – can improve external validity. He also argues that researchers should aim toward analytic generalisation, in which theory is used as a vehicle to generalise results (Yin, 2003), giving conclusions broader utility. For this reason, a relatively large sample of 19 respondents was used.

5.0 CHAPTER FIVE: RESULTS

5.1 Introduction

The previous chapter explained the methodology used to test the propositions outlined in Chapter Three. This chapter will present the findings extracted from 19 expert interviews with executives working at 11 different companies operating in South Africa.

5.2 Results: Research Proposition One

5.2.1 Introduction

Companies are driven to enter low-income markets by:

- the opportunity for new growth
- the threat that existing markets are maturing
- a moral imperative to alleviate poverty
- changes in regulation
- emergence of new political rules

Results from the expert interviews show that companies entering low-income markets do so in response to seven different drivers, including the five cited in the literature and listed above. The opportunity for new market growth, and an imperative to enter new markets given saturation in existing markets were cited most frequently by interviewees as the drivers for entering markets. The table below lists the seven drivers, and shows how many interviewees from how many companies cited each driver. The commentary following the table will provide more detail on each driver, with particular focus on the most important.

Table 5.1: Drivers for market entry

Driver	No. of interviewees	No. of companies
New market opportunity	12	9
Running Out of Road	10	6
Creating feeder markets	6	2
CSI/mission related	5	4
Creating leverage in other markets	4	3
Change in political/legislative climate	4	3
Regulation	4	2
Accidental	1	1

5.2.2 New market opportunity

The most common reason given for entering low-income markets was the fact that these markets represented a new business opportunity with potential for revenue and profit growth. Twelve of the 19 interviewees cited market opportunity when asked about their reasons for entering low-income markets. These 12 represented 9 of the 11 different companies represented.

Several respondents who cited market opportunity as a driver said they wanted to extend their reach to millions of new customers:

Dairy Firm: "We said we wanted to be in the base of the pyramid ... to reach consumers that our products do not reach, because they are too expensive."

Tech A: "So six billion people on the planet and the billion people that have access to PCs and we are saying that is a great story but how can we make it more relevant to the other five billion? ... So that clearly was looking at a market segment and saying well we don't participate in any way in that market segment, how do we actually get *into that? ... What we are doing is generally market expansion as opposed to innovating within."*

Others spoke more explicitly of an opportunity that had yet to be exploited, and which competitors were failing to serve. They identified an un-served market niche, and often believed they had the competence to dominate in that space:

Media A: "When you looked at the consumption of the news at the time it was very limited; it was basically limited to the top layer of society... When you look at the market itself and the potential of the market, the penetration of newspapers in the broader SA market was very tiny. Where most of the people resided was unexplored."

Retailer A, Mr F: "People in the townships said they would really like (Retailer A) ... Obviously there was a need. We were focused on LSM 7-12 and ignoring everything else, just because of tradition, when actually there was a need in the lower end markets. We believe it is a very lucrative market."

Retailer A, Mr C: "Where in the world would you find 100 cities that have basically been labour camps with no formalised industry and shopping? This is a business opportunity. The site was great, the population was great and there weren't many businesses in the area."

Retailer B: "The upper LSMs have 85% + market share with the major nationals. We have had some experience with bottom end LSMs and the penetration of the nationals is much lower and the independent experience is poor, it is a very poor retail experience. So we felt there was room for us to be able to take a really nice, clean, efficient, dignified store environment with great prices to the lower end of the market without having to compete with anybody."

5.2.3 Running out of road

Several respondents said they were under pressure to find new avenues for growth given increasing saturation in their traditional mid-upper income markets. This was the second most popular reason cited for entering low-income markets. Ten respondents from six companies cited 'running out of road' as a reason. Some were even more forceful, saying that expanding into low-income markets was 'imperative' and that they had 'no choice'. Respondents from Bank C, which has been seeking to reposition itself as a more inclusive company after a history as a niche player, spoke at length about the strategic drive to expand in low-income markets:

Media A: "The survival of the core newspapers depended on them diversifying, and adding newspapers to help with the distribution load, to help with maintaining the printing presses. They needed to create scale in order to survive."

Bank C, Mr L: "As a bank we were actually shrinking in terms of numbers and there were a couple of imperatives, one was how to turn what was happening in terms of our clients, particularly an older client, quite a profitable client base but older and shrinking, probably dying; I think we knew we needed to grow our client base."

Bank C, Mr J: " If we don't get into that (lower income) market we are going to be in big trouble, as a bank ... There is the pressure to move out of the niche kind of bank we have been seen as, a kind of affluent brand, but that is only sustainable to a point ... So that market is about 99% banked … You have to get growth from these markets."

Beverage B was different to other companies interviewed because it entered low-income markets several decades ago, and built much of its modern strategy, business model and competitive advantage around serving these customers. Respondents at Beverage B noted that it entered low-income markets several decades ago because there was no other option for South African companies to grow overseas due to the international sanctions against apartheid:

Beverage B: It's important to understand that for us, getting into the BOP space was the only way we could expand. Given our environment, we had to do it, we had no other way.

Some of the companies interviewed said they were seeking new growth trajectories but did not talk about entering low-income markets as an 'imperative':

Beverage A: "Our revenue has been declining and how you stop that is to create new opportunities and take existing opportunities and make them grow."

*Retailer A, Mr F: "Sandton(*an upmarket area of Johannesburg) *is saturated, and this (low-income markets) is big growth. For us the opportunity had to come out of emerging markets and the rest of Africa."*

5.2.4 Creating feeder markets

Six respondents from two different companies said their firms had entered low-income markets in order to develop markets for the future, hoping that although their low-income customers were currently often unprofitable, they would eventually graduate to more lucrative segments:

Dairy firm: "A lot of township kids will have their first X and they will grow up with the brand X, and eventually they will get out of the townships and will become X consumers."

Tech A, Mr C: "We believe that our software is valuable, but often to demonstrate that to, let's call it the people who are not exposed to our software, it is difficult to do that, and by driving programs like this, we are exposing people to the capabilities of software, and that is important for us because ... it drives the whole software economy, which is good for Tech A at the end of the day."

Two respondents from Bank C also said their company had adopted a long-term strategic approach to low-income markets, noting that the segment was not profitable in the short-term, but was expected to help capture potentially profitable customers:

Bank C, Mr L: "There were potential future benefits in banking (customers from low-income markets). The driver was more kind of future potential, not so much how much money we can make right now ... If you capture people into your banking system you capture them early and they are going to be with you."

Bank C, Mr J: "It's about building capacity, understanding that there is that pipeline coming through but you really have to empower along the way."

5.2.5 CSI/Mission-related

While all respondents said there was a profit motive – either long or short term - behind their decision to enter low-income markets, five respondents from four companies also cited corporate or personal citizenship and a desire to contribute to the transformation of South Africa.

The respondent from the Dairy firm said the company's project in low-income markets was partly a marketing and CSI project, as well as a means of extending the brand:

Dairy firm: "This was a different exercise. If you are going there to make profit then you go cheap, you don't make quality, you don't put your name in there, even if you put it on you don't care if your product is like cheap and dirty. But that is not for Dairy Firm. So I say for Dairy Firm it is very much like a marketing project, at the same time a very good project for the people so everything is like a win/win situation, give or take."

One respondent at Tech A said some of the company's offerings for low-income markets grew out of its CSI programme, noting that community involvement often spawned ideas for for-profit products, some of which were even exported back to developed markets:

Tech A, Mr I: "(Product X) came out of our corporate social responsibility programs, looking more at the lower end of the market segments... Part of that whole effort ended up with us creating a product group within that segment that purely looked at *how can we actually create products that have some kind of benefit to the next five billion."*

Two respondents cited a personal mission, on top of the corporate drive to exploit new market opportunities. One respondent at Bank C said many of the key employees working on low-income market strategy were "visionary" people who were committed to a "cause", which was related specifically to the transformation process in South Africa. One of the respondents at Retailer A echoed this sentiment.

Retailer A, Mr C: "There was also a sense that if we don't change society, what is left for our children? The more people can do this, the closer we get to a normalised society... I wanted to prove that you could trust a person of colour, and it worked wonderfully."

5.2.6 Creating leverage in other markets

One of the more interesting drivers to emerge from the interviews was the decision by companies to enter low-income markets to create leverage with clients or distributors in their traditional segments. Four respondents from three companies cited this reason as one of the main drivers, although all four said it was a secondary driver.

The respondent from Beverage A said that increasing the share of revenue from the low end of the market gave the company important negotiating leverage with its larger, high-end retail clients:

Beverage A: "We started going to the smaller guys who give less discounts and you can then go to the big guys and say look we have equalised the market, do I still need to give you (supermarkets) discounts? So expanding in this market was partly about giving us leverage in our main market."

The health insurance company was under no pressure to expand into low-income markets for profit purposes – it still enjoyed buoyant growth in its core segments, and believed the business case for serving lower-income customers was not particularly strong. However, because its main business was large companies, it believed it needed to offer a whole range of products, including one suited to 'blue-collar' workers. Ironically, the low-income unit is now the company's fastest growing:

Health Insurer: "The business case wasn't that strong, we almost thought of it as a loss leader – well we knew it wouldn't lose money but we were happy to do it at a low margin. We were doing it because we wanted to close the gap in our offering."

Two respondents at Bank C said that expanding into low-income markets in their retail business sometimes gave the corporate banking unit greater leverage, both in the private and public sectors.

Bank C, Mr L: "For the bank there were other spin offs; we didn't do very well in the corporate space in terms of banking municipalities... and particularly municipalities and stuff that we are keen to get into ... I am a believer that you need, particularly in the SA context, that you need a full suite, a full deck of cards."

5.2.7 Change in Political/Legislative Climate

Four respondents from three companies said a change in political or legislative climate – distinct from specific industry regulation – represented discontinuous change that opened up opportunity for entering low-income markets.

Beverage B said a change in laws in the 1960s made it possible to sell to South Africa's black population – which at the time was equated with low-income – and opened up a new market opportunity. International sanctions against apartheid provided additional motivation, because the company was not able to expand abroad:

Beverage B, Mr T: "For many years we weren't able to access the base of the pyramid, but then in the 50s and 60s the market opened up and we had the option to move into that market... Because of sanctions, there was also a realisation that this was a massive opportunity, but also the ONLY opportunity to grow."

Media A also cited a shift in political climate. The respondent spoke at length about the opportunities for reaching black consumers after apartheid fell in 1994. He said the company expanded into low-income markets because it predicted an economic, social and psychological shift in the country post-1994 that would lead to a shift in buying power to the black working classes. He attributed much of the company's success in this market to catching this wave, noting the importance of timing:

Media A: "At the time of the elections the country was changing, I think a whole new world opened up, the future wasn't certain, but what you could see from a commercial point of view was that things would change ... It was clear that there was going to be investment in people and there would be a development curve.... So sociologically the country was ready for commercial exploration, for a new way of presenting products including newspapers ... Was it an opportunity? Absolutely, look at the numbers ... This was fortuitous because we launched on the wave of massive social upheaval so it is like cheating almost; you have this one single thing that is going to happen whether you launch or not and it is just the timing that is an issue."

Only one of the respondents specifically cited South Africa's affirmative action programme of Black Economic Empowerment as a driver for entering low-income markets. Retailer A said that BEE was one of the drivers for its strategy of expanding into townships through black-owned franchise stores, alongside the opportunity for growth and the saturation of existing markets.

5.2.8 Regulation

Only the banks said that specific regulation played a role in their decision to enter low-income markets, due to South Africa's Financial Services Charter, which introduced requirements to offer services for the unbanked. Four respondents from two of the banks interviewed said that the FSC was useful in forcing low-income markets onto the agenda of senior executives, although again, it was cited as a secondary factor. They also noted that companies wanting to succeed in this market needed a more comprehensive approach. All four said that the initial Mzanzi product, launched jointly by the big four banks as a low-cost solution for the poor to meet regulatory requirements, failed because it did not take into account the needs of customers in low-income markets, and because a more innovative business model was necessary in order to adjust the cost base:

Bank A: "I think that the charter played an important role but the truth of the matter is that we couldn't have gotten away with satisfying the charter requirements without going here, this was going beyond the charter. But where I think the charter played an important role was to shape peoples mindsets and to get people focused on this and realising that maybe there is an opportunity, so I think the charter helped."

Bank C, Mr L: "We had an FSC obligation to meet ... Mzanzi as an industry standard, was great in that it focused the industry's attention on this end of the market. But it was probably an over-engineered solution in that the functionality, the systems, the integration that it required cost the banks ... it has focused the bank's attention on what solutions are going to work."

Bank C, Mr P: "Not a single bank in SA, even though they would like to intimate otherwise, went into mass market at the base of pyramid, willingly."

5.2.9 Conclusion to Research Proposition One

The potential for new growth – either simply as a promising opportunity or as a new avenue given faltering revenues in traditional segments – was cited 20 times, and was therefore identified as the main driver for entering new markets.

But it is also interesting to note that many companies also cited secondary drivers, with 16 of the respondents providing more than one reason for market entry, and three respondents citing five different drivers. Several respondents said their low-income strategies were based on a long-term view. They often evolved from a broader mission-related CSI approach, and were often not aimed at making immediate profit, but at developing future markets. Regulation and/or a shift in the political/legislative climate was a factor for several respondents, and most of these cases were linked to specific developments in South Africa, such as laws and programmes related to apartheid, or to redressing the imbalances of apartheid post-1994. While only four respondents said entry into low-income markets increased their leverage in existing markets, this was interesting to note, because it suggests that the benefits of entering low-income markets for companies serving mid to high income may enhance a company's current business and performance in existing segments.

It can therefore be concluded that the data does indeed support Research Proposition One – that companies operating in mid-upper income markets are driven to enter lower-income markets by the five drivers cited. The perceived opportunity for new growth and the pressure to develop new income streams were the strongest drivers, although most companies are also driven by secondary factors, which combine with the desire for growth to drive market entry.

5.3 Results: Research Proposition Two

5.3.1 Introduction

In low-income markets, innovation is often triggered by '*negative*' factors, which may force companies to produce innovative solutions, sometimes creating competitive advantage for the firm. These negative triggers include:

- lack of infrastructure
- limited buying power
- lack of skills/low levels of literacy
- conflict
- corruption

As discussed in Chapter Two, this report proposes that in developing market contexts, 'negative' factors, such as limited customer buying power, lack of infrastructure and lack of skills often force companies to radically rethink their strategies, resulting in innovative solutions. This can be neatly summarised in a quote from one of the consumer goods companies: *"You have to be creative because of the kind of challenges you're dealing with. We went to Alexandra* (a Johannesburg township notorious for crime and poverty) *because it was the 'worst' area, with the biggest challenges, and we said go crazy, be as innovative as you can".*

Five negative triggers were identified in the literature and are listed above. Three of these were substantiated by the data. A fourth trigger also emerged from the data – security. While the types of negative factors cited varied, almost all interview respondents provided examples of how challenges, or potential barriers, had prompted innovative thinking and solutions. Many respondents cited several different examples of how 'negative' factors had triggered innovation. The table below lists the different negative factors, as well as the number of times that factors featured in stories and examples as an innovation trigger, and the number of interviewees and companies by whom it was cited.

Table 5.2: Innovation triggers

Trigger	No. of examples of constraint leading to innovation	No. of examples where constraint turned to competitive advantage	No. of respondents who mentioned constraint	No. of different companies
Lack of infrastructure	20	8	13	10
Limited customer buying power	13	7	11	9
Security	9	0	5	4
Lack of skills/literacy	8	1	8	5
Community opposition	1	1	1	1
Conflict	0	0	0	0
Corruption	0	0	0	0

It was also noted after the data was collected that several companies turned the constraint, or negative trigger, into a competitive advantage, over and above simply solving the problem at hand. This was particularly noticeable when the negative trigger was 'lack of infrastructure' or 'limited buying power'. For example, Bank B responded to the lack of bank branch infrastructure by introducing cell phone banking. This quickly gave the company a significant competitive edge, and has yielded *additional* revenue streams, such as sales of airtime, lotto tickets, and other products. Of the 51 examples of negative factors triggering innovation, 17 were deemed to have turned the solution into a competitive advantage, which brought additional benefits to the company.

5.3.2 Lack of Infrastructure

Respondents recounted 20 examples of cases where innovation was triggered by an infrastructural challenge. In eight of those cases, the company turned the innovation into a competitive advantage that went beyond simply solving the initial problem.

In several cases, respondents explained how poor distribution infrastructure in low-income markets – a recurrent theme which will be discussed in more detail under proposition three – meant the company had to build a parallel system from scratch. Several respondents described how the lack of existing infrastructure in this segment forced them to innovate and to think differently about distribution, eventually resulting in a far better solution than using their traditional model and creating tangible benefit and competitive advantage.

Both the Media and Dairy Firm explained how their companies needed to build new distribution networks when they launched products for low-income markets, with both companies leveraging the local knowledge of people living in low-income communities. In its traditional markets, Dairy Firm reached customers through supermarkets, which at the time were not present in low-income communities. It responded to this lack of infrastructure by building its own network of exclusive agents, who were well connected in the townships, and were able to quickly win consumer trust for a new product and brand at a much lower cost than that demanded by retail channels.

Media A is a particularly interesting case, because the company clearly turned the challenge to its advantage. Previously, the firm had low-volume titles that were distributed via existing networks, therefore building its own distribution network was a new strategy. It had to be innovative in the way it went about doing this, recruiting a ‘hub and spoke’ network of agents – many of whom where readers, and forging partnerships with people within communities who could better navigate that landscape. Ultimately, this system created hundreds of new businesses in low-income markets, creating incentives for sales volume and building relationships and goodwill within communities where the newspaper is sold:

Media A: “There are literally two countries here: there is this formal infrastructure and then there is a little known township infrastructure out there where nothing penetrates; there is no infrastructure, there is no way of doing this kind of business in there and it was just accepted like that ... So we had to literally create a parallel distribution infrastructure. And the other way to create that is to involve the people, the would-be readers. So we rose to the challenge and said okay, ‘if you want to be in business with us, come to us, let’s talk.’

Banks A, B and C also overcame infrastructural challenges by innovating around distribution. Banks A and C described how the lack of banking infrastructure posed a major problem, because customers had no way of returning cash to the system. Rather than simply building more branches, Bank A responded by building ‘bank shops’ – whereby small local retailers would provide basic banking services. The “breakthrough” innovation not only led to greater market penetration and convenience for customers, but it also removed huge costs for the system, creating a viable model for scaling.

Bank C responded to the infrastructure problem by developing a similar innovation, combining a presence in major retail stores with mobile sales teams:

Bank C, Mr K: "The person you have sold this account to has difficulty putting money into the account because where do they go, there is no branch nearby ... (We asked) is there an opportunity to use the (retailer) relationship to help us and at the time there wasn't because the functionality didn't exist, but we developed it through those interactions and then slowly we have just moved together."

Bank B responded to this constraint by launching mobile banking, arguably one of the most revolutionary developments in banking in the developing world. Its early response to the limited infrastructure 'trigger' created significant value for its customers and created new revenue streams as an electronic currency system developed, giving it a head-start with implementing the technology, and a significant competitive advantage in this segment:

Bank B: "People who live in the squatter camps and just outside the city - when we looked at getting to those guys there was no way our traditional bank accounts could apply to them. We could go there and give them a bank account but we can't take cash there, we can't take infrastructure there."

Beverage A was also faced with poor distribution infrastructure when it stepped up its drive to win business in low-income communities. Rather than reinvent the entire system, it provided existing distributors with key infrastructure that increased efficiency and quality and led to a marked increase in sales. The company provided small informal 'spaza shops' with state-of-the-art refrigerators often build into the store front for maximum impact, enabling retailers to promote Beverage A's products whilst keeping them cool. This gave the company a competitive edge because retailers were only allowed to use the fridges for Beverage A products. The company also created a new distribution channel by providing informal traders with branded mobile ice coolers:

Beverage B: "We took the informal traders, the guys who sell on the side of the street, and we thought there is an opportunity to brand a crate, so we provided them with ice coolers. This meant that they could sell our product – they weren't selling it before because they couldn't keep it cool. So this was a growth opportunity we had never had before."

"Alfred's tuck shop is one of my favourite examples. We extended his shop because it was only big enough for a small cooler. We installed a bigger cooler and painted his whole house red. He used to sell about 9 cases a week, now he sells over 50 cases a week – and that's in 3 months. Now he has enough volume that he's on our direct delivery route, and he's been able to expand his range of products to include other goods. That also helps us because it brings in more customers."

Several respondents described how the lack of infrastructure prompted them to innovate with cutting-edge technology. Two consumer companies said they used GPS technology to plot and track distribution in low-income communities, where many streets are not clearly marked, and where informal traders and retailers frequently open and close:

"The (retailers) would open and close the whole time we couldn't keep track. What we did was to develop a massive GPS system, this was about 2-3 years ago. And we now have a Blackberry application to tag all the (retailers) and then update the system with all the details as soon as it moves. It's incredibly useful for the sales guys and the distributors."

Negative triggers also spawned technology innovation at Tech A, which, as an industry leader and first-world multi-national is more used to innovating in response to sophisticated user demand. Respondents from Tech A told several stories about ways in which innovative products were designed in response to an infrastructural challenge in developing markets. One interesting example was an idea for an SMS-based product that sought to redress the problems of dysfunctional markets in low-income communities:

Tech A: "So one of the projects that we did around SMS was with sugar cane farmers in India at the time. What you have is market buyers, and sugar cane farmers. The farmers were going to market and depending on which market everyone went to, you would have an over-supply in one market and an under-supply in another. And the farmers would get less money when there is a surplus. So we said what if you have the mechanism where the guys buying sugar cane could quickly SMS 'I bought 100 bales at 500 rupees', not a realistic price but you get the idea, so they would input that into the system. The farmers then would query it and just a simple SMS saying 'what is the market price right now in Bangalore?' and it would quickly come back... that has got value because they don't go to the wrong market and can then sell at the best price."

Several companies said lack of infrastructure and difficult market conditions had acted as a trigger for more innovative *partnerships*, describing how they forged partnerships with parties they would not have approached in their traditional markets, and often adopted more collaborative practices than usual. This will be explored in more detail under proposition three.

Finally, one of the retailers said lack of transport infrastructure in low-income markets triggered innovation around store location, which the company said has become a key competitive advantage.

5.3.3 Limited buying power

Respondents cited limited buying power as one of the key constraints and challenges for companies operating in low-income markets. They provided 13 examples of how the need to sell at a much lower price triggered innovation around business model, product design and approaches to cost management. Seven of the 13 examples resulted in benefits to the company that went beyond solving the initial problem. Many of these factors will be discussed in more detail under proposition three, however some of the interesting cases will be highlighted here, in order to underscore the fact that innovation was triggered by a negative factor.

In several cases, limited buying power triggered innovation around business model and cost control. Both Bank A and B said the need to remove costs from the model was one of the triggers for innovating around the distribution channel. This constraint prompted Bank A's innovation around banking in informal retail stores – "*how do I get this cost out of this branch? That was at least partly the drive for that innovation*" – and Bank B's shift into mobile banking – "*You have to have an extremely low cost product but you have to deliver it in an extremely high cost environment. And to do it the traditional way of opening, even through agents, we just could never match the cost and the income brackets.*"

Health Insurer A was also prompted to innovate around its business model in response to the limited buying power of its customers. The respondent said "*the biggest hurdle is affordability*",and said the company responded by changing its relationship with medical providers to secure lower rates. Bank C innovated around risk and lending in response to their clients' inability to provide collateral for lending, by creating a group lending product.

Several companies said limited buying power was a trigger for innovation around cost control. Retailer B said the need to provide affordable products forced it to combine elements of the cash and carry business model with the more upscale retail experience to reduce costs. Beverage B said limited buying power provided the discipline that made it the lowest cost producer in the world, providing it with competitive advantage in other markets:

Beverage B, Mr T: "Because of our focus on cost and bringing down the price for the market we were serving, we became the cheapest producer in the world. That was *because of our need to make* (the product*) cheap, to compete with (*traditional home-made products)*."*

One of the most interesting examples of limited customer buying power triggering product innovation came from Tech A, which redesigned the whole computer experience by developing the concept of shared computing – whereby many users can use one PC. This innovation allowed several users to connect to one computer using different mice:

Tech A, Mr I: "What do you do if you can't afford a 30 PC lab, but you can afford one PC in a classroom?"

Interestingly, another respondent at Tech A noted that the company needed to invest in *more* innovation in low-income markets precisely as a response to the challenge of limited buying power:

Tech A, Mr V: "I think that is part of the challenge we have around whether we can develop make a product available at a price that is affordable to BOP people. And there we have struggled; beyond the kind of cell phone area we have struggled … I don't think we have done enough in relation to trying to identify the kind of products."

5.3.4 Security

The challenge of security emerged relatively strongly as a negative trigger for innovation among companies interviewed, even though it was not cited in the literature. Arguably, this may be a factor that is particularly pertinent in South Africa, which suffers from some of the highest rates of violent crime in the world and the highest gini-coefficient.

Some respondents said the security challenge in a cash economy had already triggered innovation around cash handling, while others said they were looking into innovative ways of mitigating security risk. The trigger was cited nine times by four different respondents.

The respondent from Beverage A told several stories about how the security challenge had triggered innovative designs to prevent thieves from stealing products from refrigerators the company installed in informal stores:

Beverage A: "One of the biggest issues was security. So we had to find a locking mechanism that would be strong, but that would still allow the owners to do business. We developed a whole series of locking devices in-house, everyone threw their ideas in. This was done specifically because of the challenge. So first we looked at the electronic magnetic lock with a remote control ... Then we looked at the auto industry to see what we could learn, and we copied the central locking system and put it into our cooler – this was also remote controlled ... We also came up with a locking system that was a bit like a security gate."

Crime also triggered a technology innovation at Retailer A, which built a system whereby cash is funnelled from the tills back into an ATM outside the store. This enables the store in question to turn over R1 million on about R100,000 cash, despite a very lower percentage of electronic transactions.

Mr L at Bank C said security concerns for branches in low-income communities was one of the triggers for the mobile banking focus, while Mr J at the same Bank said the same concern had prompted the bank to partner with retailers.

Dairy Firm and Retailer B both said the security issue was one of the biggest risks for their businesses, and that they were looking for a solution, but had not yet found one:

5.3.5 Lack of skills/low literacy rates

Respondents said that lack of skills and low literacy rates were a challenge both from an internal employment and a consumer perspective, and had triggered product innovations, as well as innovative ways of managing relationships with staff and partners. Eight respondents gave eight examples of how low skills or literacy rates triggered innovation.

Tech A provided one of the most interesting examples, and managed to not only circumvent the problem, but to create an innovation that generated additional value for the company. Mr I at Tech A noted that while many customers in low-income markets are technically illiterate, they are often technologically literate, particularly with regard to the cell phone. In order to leverage this customer aptitude, the company worked on developing "cross-cultural icons and visualisations" that could be used on cell phones in developing countries. In fact, these icons had the potential to improve the user experience across markets, creating value through convenience as well as solving the literacy problem.

Some respondents used innovative ways to educate customers. Health Insurer A was prompted to creatively use pictures and icons to educate customers about the mechanics of insurance in response to the literacy problem:

"Educating the client is one of the most difficult challenges... We started using cartoons and pictures to simplify the message. If we can't say it in five messages we don't say it at all."

Beverage B helped its informal retail customers navigate complex regulation requirements, noting that "*in this market it takes a different approach because of the skills gap and the size of the informal economy."* The company has also provided sales representatives with a smart-phone based system for gathering data on pricing, sales and products from informal retailers, and said this innovation was triggered by the fact that the owners "*didn't have the skills or technology to record that information themselves*".

5.3.6 Community Opposition

Only one respondent cited potential community opposition as a constraint, but the example so aptly illustrated the way in which a negative factor can trigger innovation which can then be leveraged to create additional value for the firm, that it has been cited below.

Mr G at Retailer A described how, as the owner of a new store in a low-income community, he faced opposition from informal traders in the area, who were concerned their livelihood was under threat. This threat prompted Mr G to engage with the informal traders even before the store opened – itself an unusual and innovative approach. Mr G then decided to use the informal traders to enhance Retailer A's proposition – he offered the traders the chance to buy food at a wholesale price, as long as they did not distribute within a certain radius of the store. He then provided the traders with branded bikes, and encouraged them to penetrate areas where Retailer A itself could not reach. Through its innovative response, the company turned a threat into an advantage.

5.3.7 Conflict and corruption

No examples of either conflict or corruption were given by respondents, most likely due to the specific South African context.

5.3.8 Conclusion to Proposition Two

In conclusion, there was strong evidence to support the proposition that 'negative' factors or constraints prompt companies to innovate in low-income markets, with a total of 51 examples of cases where a negative factor had prompted an innovative response. Lack of infrastructure was the most common trigger, followed by limited buying power in the target market. There was also evidence to suggest that the issue of security and low literacy levels had prompted innovation in some cases. One of the most interesting findings was the fact that in one third of the examples, the company in question turned its innovative response to the 'constraint' or negative factor into a competitive advantage, going beyond simply solving the problem at hand.

5.4 Results: Research Proposition Three

5.4.1 Introduction

Companies operating in low-income markets engage in disruptive innovation, or believe that the elements of disruptive innovation are important to consider when entering low-income markets. Their offerings and strategies are frequently characterised by:

- Affordability
- Simplicity
- Different performance parameters
- Convenience
- New business models, including different cost structures
- Product architecture overhaul

- Cannibalisation of/encroachment into existing offering

Few managers would use the phrase 'disruptive innovation', and even if they did, would probably not use it as defined by Christensen. However, it is clear from the data gathered from the 19 interviews conducted that managers consider the elements of disruptive innovation, as identified in the literature, to be extremely important when entering low-income markets, and bear them in mind when crafting their offerings and go-to-market strategies. Most managers interviewed made the point that entering low-income markets required a very different and usually innovative approach. Their descriptions of a successful low-income market entry strategy frequently featured the elements of disruptive innovation as listed above. The table below indicates how many respondents referred to each element of disruptive innovation.

All of the elements described by Christensen were mentioned by at least eight respondents, with most tallies significantly higher, providing significant evidence to support proposition three, and suggesting that the companies interviewed do in fact exhibit the elements of disruptive innovation when entering low-income markets. Several other themes, which are not listed in the disruptive innovation literature, also emerged strongly, and have been included in the table. The factors discussed most frequently by the respondents are in bold. Those themes that emerged from the data but were not listed as elements of disruptive innovation by Christensen are in italics.

Table 5.3: Elements of disruptive innovation

Element	No. of respondents	No. of companies
Affordability	**16**	**10**
Different dimensions of value	**18**	**11**
Simplicity	14	9
Convenience	11	8
Business model change	**18**	**11**
New cost structures	**15**	**10**
New distribution channels	14	10
Partnerships/community engagement	***17***	***11***
Architectural overhaul	8	5
Cannibalisation/encroachment	11	7

The elements that either emerged most strongly, or provide most interesting fodder for discussion, will be unpacked in more detail below. These are: the need to consider business model change, new cost structures and new distribution channels; the need to ensure offerings create value along new dimensions, ones that suit the target market; the need to forge partnerships and build community trust; and the need to consider and possibly embrace the risk of cannibalisation. While affordability, simplicity and convenience were all considered extremely important by respondents, they are relatively straightforward concepts which be discussed only briefly.

5.4.2 Business Model Change

Respondents were virtually unanimous in their view that a company usually has to change or at least adapt its business model when entering low-income markets. Eighteen respondents representing all 11 companies explicitly stated that business model innovation was necessary, or provided examples illustrating how they had innovated or were attempting to innovate around business model, making this characteristic the most frequently cited. Business model innovation was cited far more frequently that product or technology innovation, although this may be due to the dominance of financial services and retail companies in the sample. A respondent from one of the banks explicitly stated that his company only started to gain traction in low-income markets once it started to innovate around its business model, rather than focusing on product. The quote has been provided in full because it encapsulates the emphasis many respondents placed on designing a new business model, which often involved working from entirely different cost structures and using completely new distribution channels:

"The insight that Bank A had five years back is that everything that happened in the bank up to that point to do what we now call financial inclusion was very much product focused, and it became very clear that we ran out of road on that strategy and in fact that the whole banking sector was at a point that they created a world that works for nobody. What we've done is taken a very expensive model and pushed it down further than we should have pushed it, so what you doing is you providing services to customers who can't give you enough income to justify your cost base ... so there was a clear understanding that unless we move into a business model type innovation, not only will we not expand financial services further but we will not be able to sustainably service the people we already had."

Given the overwhelming amount of data and the many different types of innovation included under 'business model', the comments were divided into different themes, with the need for different cost structures and different distribution channels broken out as separate themes discussed under separate headings. The following recurrent themes were also identified under business model change: 1) the switch to a **high-volume low-margin model** and **2)** a focus on **new ways of payment** for example pay-as-you-go.

- High-volume, low-margin

Several respondents mentioned that their company's strategy in low-income markets was built on a high-volume, low-margin model. This applied across sectors. Most respondents said that, because of the affordability constraint, companies should expect to operate at lower margins in low-income markets than in their traditional markets. However they could offset this with greater volume, which would also provide the economies of scale to make the business profitable and to introduce the price cuts that will drive volumes. A sample of examples from companies in different sectors has been provided below:

Beverage B, Mr D: "In the (low-income) market it's really all about scale, volume and cost. At the premium end we try to focus more on brand building and loyalty."

Media A: "We flood: if there is an outlet, flood it. Don't have just two copies of (Product A) in a shop, have 50. Flood the market ... The volumes were just amazing. So you started to get economies of scale, you go cheaper and cheaper to produce one copy."

Retailer A, Mr F: "There are so many more feet through -- it's a volume model with a lower spend per customer."

Even in the traditionally higher-margin industries such as technology and financial services, companies stressed that high-volume and low-margin models were necessary to succeed in low-income markets:

Bank A: "People have to understand if you in a high volume business you going to end up running at lower margins than you would in other market segments."

Bank C, Mr P: "We used to be in the game of let's get 10 people and they give us 100 bucks each; we are now in the game of let's get 100 people and they give us 1 rand each."

Health insurer: "It's a scale model ... It was a conscious decision to subsidize this market to get the economies of scale to make it profitable."

Tech A: "What you are trying to do is either make the cost of usage such a low, small little tick that it doesn't hurt an individual, but because you are now accessing a much larger market, the tick makes sense."

- <u>New payment models</u>

Several respondents said that instead of designing entirely new products, they experimented with different ways of managing payment, which would make existing or similar products more accessible to consumers in low-income markets whilst ensuring reasonable margins for the company. A recurrent idea was to experiment with the pay-as-you-go model which was used so successfully by the cellular phone operators. Two of the banks referred to pay-as-you-go transactional products, which they said were more successful than accounts requiring a monthly fee for customers with intermittent incomes:

Bank C, Mr P: "There is a bunch of people who have no money, zero, zilch, and you can't go and give them a bank product, you just do them a dis-service. What you should be doing for them is giving them a prepaid service."

Tech A also said it had experimented with pay-as-you-go computing models.

Respondents also cited other business model innovations, such as using a franchise model to increase community engagement, outsourcing less skilled labour to keep the wage bill low, and decreasing the number of pages in a media product in order to increase leverage with advertisers. However these were largely industry specific.

In conclusion, almost all respondents said that it was necessary to innovate around the business model when entering low-income markets, making this one of the most important and frequently cited characteristics of successful innovation in this segment.

5.4.3 Cost structures

The cost-cutting imperative, an element of business model innovation, was cited by 15 respondents from 10 of the 11 companies.

Companies had various different strategies for removing and containing costs. The consumer companies largely focused on improving efficiencies to remove costs, with some using different ingredients, and some relying on economies of scale to reduce costs (as explained under the business model section). One of the retailers said it removed costs by compromising on the level of personal service and the in-store experience – although the respondent stressed that the quality of the actual goods could not be compromised. One respondent at Tech A said the company was hoping to use cloud computing and eventually smart phones to reduce costs and change the scale economies for low-income markets. Health insurer A said the company tried to externalise some costs through its partnerships.

But the sector where the need to radically reduce costs seemed most acute was the banking industry. Respondents from all three banks interviewed said that not only did banks need to reduce costs, but they needed to come up with a completely different cost structure based on an entirely new distribution model. Because cost and distribution are so closely inter-linked in this industry, there is some overlap with the following section on distribution. Respondents from the banks all said that the traditional branch distribution network did not work in low-income markets, because the costs were too high:

Bank A: "*What hasn't worked at all for the large banks is distribution options around those products. We've got a massive cost on the branching structure ... the banks are currently sustaining severe losses in this market as a result of it's expensive infrastructure."*

Bank C, Mr L: "There are going to have to be solutions that have low cost associations with them and one of the biggest costs in the equation is distribution. Distribution is very expensive."

All three banks were experimenting with different models that they hoped would remove whole swathes of costs and completely change the cost economies. Bank A, for example, attempted to remove the branch infrastructure cost by rolling out bank 'counters' in retail stores in low-income communities. Bank B said it had successfully recalibrated its cost economies through its aggressive expansion into mobile banking:

"You are looking around R10 to serve a balance in a branch, if you absorb all the costs and you cost it out. To serve a balance on cell phone banking you are looking at 20 or 30 cents."

Mr L at Bank C also noted the potential of cell phone banking to cut costs, noting that banks needed to find ways of actually *removing* large chunks of the cost base to become profitable, not simply by cutting corners and tweaking the existing model. One respondent at Bank C said the company had removed some costs through its partnership with major retailers. All four respondents from Bank C made the point that the company was forced to operate on the same *systems* and the same cost structures in low-income markets as in traditional markets. They said this was an impeding factor, and may be preventing the company from disrupting itself and the market. One respondent **directly attributed the bank's failure to break even in low-income markets to date on the fact that it had not been able to build a leaner model with sharply reduced cost structures**, noting **that this was the single most critical success factor.**

Mr L: "I can't escape the fact that we reduced costs but we didn't take out huge chunks of costs ... So we are still trying to remove costs, we are still in that phase, so we haven't cracked the tipping point, where suddenly we say 'wow'."
Mr J: "You have literally got to start your cost basis again ... We haven't really built a leaner model. What we are doing now is a big drive to look at (our cost base)."

In conclusion, the need to reduce costs was almost universally cited as a prerequisite for success in low-income markets – with only one company choosing not to mention it as a factor. Many respondents, particularly those from the banks, said that radically reducing costs and building completely new cost structures were one of the most important factors for consideration by companies entering this segment.

5.4.4 Distribution

Fourteen respondents at 10 of the 11 companies said that a consideration of new distribution channels was necessary for companies seeking to operate successfully in low-income markets. The respondents fell into two camps focused on two themes when talking about distribution: costs and access. Some respondents straddled both.

Several respondents focused on distribution as a way of removing costs, as discussed in the previous section. As explained, banks have sought ways to replace the expensive branch infrastructure network by distributing their services via mobile phone or through retailers.

Most of the companies that used new distribution channels as a way of removing costs also said that the new channel removed an access barrier, enabling the company to reach new groups of customers. For example, Dairy Firm said it opted to distribute via informal retail stores and through a network of direct sales agents in low-income communities to cut costs and maximise margins. However that system also gave it a footprint in communities where, until recently, the main supermarkets and retailers had not entered.

Bank B said its mobile distribution strategy also served a dual purpose, reducing costs for the bank whilst removing travel costs for the customer and therefore creating both a cheaper AND more profitable product:

"We didn't change banking, we just changed the way we delivered banking. And we could do it while still maintaining our profitability ... If you think of a guy sitting out in the sticks, for him to just know that his money is deposited, is a R20 taxi. He now checks or gets an SMS saying 'we have received your deposit'. So without loading costs on to my customer I have actually managed to make this a significantly more profitable product."

Several of the consumer companies said they had innovated around the distribution strategy in order to *enable* their distribution clients, in a way they would not have done in traditional markets. For example, both beverage companies said they had become much more deeply involved along the value chain than in traditional markets. Beverage A expanded into a new channel by helping informal retailers in low-income communities reach more customers, and installed visible refrigerators in informal retail stores to keep its products cold:

"It's about reaching out to the (informal) shop owners, the tuck shops and the informal traders to create new channels for our products ... What we would do is to help the spazas with their menus, we helped them put together combos and helped with some occasion-based marketing. We gave them the kind of help and advice that a franchise would."

Beverage B took a similar approach with informal retailers, helping them design layout, providing decor, helping them manage stock and ensuring that they navigate the regulatory requirements of the industry. The company noted that its relationships and experience with the distribution network had become its key competitive advantage. This point will be explored further under the partnerships and alliances section.

Health insurer A provided one of the most striking examples of innovating around distribution through stepped-up involvement with its partners both up and down the value chain. The respondent explained how the company's employees often accompanied brokers on presentations, to help them understand the segment – something they would never have done in the traditional market. The insurer also forged much closer relationships with doctors:

"We get much more involved with the doctors -- we spend more face to face time with them. We are IN the delivery system. We are involved in the delivery of the actual health and helping doctors make referrals."

In conclusion, respondents believed that companies should consider possible new distribution channels when they enter low-income markets. Innovating around distribution could help companies remove large chunks of their cost base as well as accessing large groups of new customers. Companies in low-income markets often found they needed to be more involved with their distribution partners, helping them reach customers and influencing their strategies. The canniest companies were able to use distribution as a route to both lower costs AND new customers.

5.4.5 Different dimensions of value

Along with business model innovation, the need to cater for a different set of customer needs and to design offerings according to different dimensions of value when entering low-income markets was the factor cited most widely by respondents. Eighteen respondents representing all 11 companies said that without a clear understanding of how the needs of the target market differ, a company was unlikely to succeed. One quote encapsulated the comments, stressing that any low-income market strategy must *start* with the customer:

"The customers must really have the need and I think that's where we've gone wrong a lot of the time -- we've got something that we want to sell as opposed to the customer has a particular need that is immediate and we give them something that meets that need."

Comments from respondents about customer value were mostly grouped around the following themes: price-performance trade-off, product relevance and a deep understanding of HOW customers consume.

- <u>Price performance trade-off</u>

Several respondents were wrestling with the price-performance trade-off necessary to operate in low-income markets. Most said their companies were loathe to compromise on the quality of goods or service delivered, but needed to find ways of recouping costs to make the offering affordable. Both retailers said they would not sacrifice the quality of goods sold, because the purchase risk for customers was high in low-income markets, however one said it cut costs by scaling back on the in-store experience. This will be discussed briefly under the affordability heading.

Tech A respondents said the firm traded off quality for price and convenience, noting that a mobile computing solution was "*a bit more clumsy to use (than a PC), but it beats the hell out of not having it*". Mr C at Tech A also described how the firm provides versions of some of its products in low-income markets that may not measure up to the top-range version on traditional dimensions of value, but are "*good enough*" and "*absolutely free*".

Several respondents said they traded off *choice* with price, rather than performance. This was a particularly interesting example of providing an offering that may be inferior along the traditional dimension valued by traditional customers – eg choice, in this case – but superior in terms of more important dimension of value – eg price, without compromising on quality. For retailers, this meant more limited product lines. Health insurer A said it placed restrictions on the doctors and hospitals that could be accessed by customers on its cheaper plans, but did not restrict the number of claims:

"By placing restrictions on the doctors and hospitals it's not as good as the medical aid you are used to, but it's much better than going to the public hospitals ... We insisted that we wouldn't compromise on quality because we didn't want to undermine the brand, but we do restrict choice, that's how we get the cost savings."

- <u>Product relevance</u>

Almost all respondents stressed that companies entering low-income markets must *adapt* their offerings to meet different dimensions of value. The Dairy Firm designed its product from scratch to meet the nutritional needs of customers, rather than to appeal to the more 'sophisticated' cosmetic requirements of higher-end markets:

"This product has slightly less protein. So it is a cheaper base than the other bases, but we compensate with the vitamin enrichments ... working on the high-end markets I think 'what can I bring', okay, a (Product X) to make your hair beautiful, and longevity. For the BOP it is different, it is really I would say a share of tummy and a share of pocket."

The retailers adapted their product lines to reflect the preferences of low-income customers, often resulting in product ranges that would be deemed inferior in higher end markets, but which were *superior* in the eyes of the target market:

Retailer A, Mr F: "You don't sell many Barbie dolls in (low-income area A), and there's only one swimming pool there so you don't have your big pool promotion up front. We sell a lot of bulk products – in Sandton people aren't going to buy 20 kg of maize... It's an incredibly exciting market, but you have to adapt to what the customer wants."

Retailer A, Mr C: "In the butcher we sell chicken feet, hearts and lung – all the offal that people here love... Our belief is that we give the market what they want, but on a quality basis."

Tech A also stressed the importance of relevance, noting that it was important to consider the local context and conditions when designing products:

Tech A, Mr I: "Trying to figure out a way to use (a computing product) for someone who doesn't have electricity -- that is not relevant in any way."

- <u>Understanding *how* customers consume</u>

Several respondents said that while adapting the offering was important, a deeper understanding of HOW the target market consumes was also necessary, in order to maximise the value attached to the whole package in low-income communities. They noted that gaining this understanding began with empathy:

Bank A: "I always say the mother of innovation is not creativeness or ingenuity it is empathy and compassion, it's sticking to what your customer really needs and understanding that."

For some respondents, that understanding is reflected in the way products or services are packaged and delivered. The two retailers said they provided both smaller pack sizes – for customers living "hand to mouth" – and much larger packs – for customers buying in bulk either to sell or for entire families or communities or buying clubs.

Retailer B said it had built its strategy around its understanding of the way low-income customers buy fresh produce, as well as the importance of location for customers using public transport:

"The (mainstream supermarkets) cater to yours and my taste, they have a whole bunch of stuff like pre-packs, that caters to our paradigm around meat, but they clearly don't cater to the lower LSM groups... what they have missed is that this LSM group have a different view, a different social context to freshness because most of them live without refrigeration just about, and in terms of their hierarchy of aspiration fresh meat is a big deal. It is aspirational, it re-affirms that you have arrived, it is quite manly, a good cut of fresh red meat and they inherently don't trust the freshness of stuff that is presented to them. So short of actually seeing it ripped off a cow, they want to be able to see, they want visual proof that this thing is fresh. We don't go to a braai on a Saturday afternoon and stand around the braai and talk about how fresh the meat is. This LSM group does".

Media A said that as well as including content that was designed and written specifically for the target market, it adjusted the *format* of its publication for low-income markets to suit the reading habits of the target market:

"They want to know it, but don't write a book about it, they are not going to read it. Bite size chunks, make it interesting, valuable, so they can use it tomorrow, so that he can walk into a conversation and say 'you know in India last night…."

One respondent from Bank C noted that an initial banking product meant for low-income customers had failed precisely because it failed to take into account the *behaviour* of customers in the target market. After realizing that the Mzanzi account was not suitable for customers with only intermittent income, the company developed a new pay-as-you-go transactional product, which was far more valuable to certain customers.

5.4.6 Affordability

Sixteen respondents from 10 companies cited affordability as a crucial factor for consideration when designing low-income market entry strategy. Some of this was covered under 'price-performance trade-off' above. Few of the respondents elaborated, because it was viewed as an obvious criterion for success.

5.4.7 Simplicity

Like affordability, simplicity was considered to be an extremely important factor, cited by 14 of the 19 respondents, but not one that prompted extensive elaboration. It was interesting to note that simplicity applied to the number of features on a product itself, the number of products or services on offer, and the means in which companies communicate with customers. Simplicity seemed to apply across industries, though in widely varying applications. For example, Media A said it stripped back the number of pages in its publications and simplified the format of news stories, while Health Insurer used pictures, cartoons and five basic messages to explain complex insurance policies. Beverage A ensured that the coolers and fridges it installed in low-income communities were simple and easy to fix, while Dairy Firm produces just one single but popular product for this segment. The phrase “no frills”, “basic” and “fewer features” were used frequently.

5.4.8 Convenience

Convenience was also mentioned frequently, and viewed as an important factor for consideration by 11 respondents from eight companies. Companies often referred to convenience when discussing distribution -- not convenient in the sense that a time-poor cash-rich developed paradigm consumer might understand, but in the sense that products and services must be made *available* and *accessible* for consumers in low-income markets.

Several respondents said that offering convenience involved innovating along the supply chain to develop new distribution channels – this has been discussed extensively under the distribution section.

5.4.9 Architectural overhaul

Interestingly, this was the only element of disruptive innovation identified in the proposition which was not significantly corroborated by the primary data collected, cited by eight of the 19 respondents. This may be due to the fact that few product-focused companies were interviewed. But across sectors, companies repeatedly stressed the importance of business model innovation when entering low-income markets over and above the need for product overhaul. Several companies did discuss new products that had been designed for this segment, but rarely in such detail and with such emphasis as their comments on innovation around business model, cost containment, distribution channel and their focus on new dimensions of value.

Several of the respondents from the banking industry described new products they developed from scratch in response to the different needs and risk profiles of the new market, noting that the initial product aimed at the unbanked market failed because it was simply an adaptation of a standard cheque account, rather than a newly designed product. Media A resisted calls to adapt a British-style tabloid format and designed a uniquely African working class newspaper based on the cultural specifics and political realities of black South Africa in the late 1990s. Tech A described a particularly interesting example of architectural overhaul, where, rather than adding endless new features to adapt existing products to the needs of low-income markets, they redesigned the computer to allow one machine to cater for multiple users.

However, whilst several companies believed they needed to overhaul product architecture to succeed in low-income markets rather than simply adapt and change features, business and operating model innovation was viewed as more important.

5.4.10 Partnerships and customer engagement

This theme was not identified in the proposition as a component of disruptive innovation, but emerged strongly as respondents discussed their innovation strategies in low-income markets. Seventeen respondents representing all 11 companies stressed that partnerships and alliances, either with other companies, government, occasionally NGOs and frequently the customers themselves, were essential for success in low-income markets. In several cases, the entire strategy and virtually all examples of innovation grew out of deep engagement with the communities they were serving. In some cases, respondents said they had “co-created” solutions with customers, and clearly viewed their clients as partners.

Given the volume of data on this subject, it will be divided into two sections: 1) partnerships, which refer to alliances with other organisations, and 2) community engagement, which includes co-creation and consultation with community bodies and customers themselves.

- Partnerships

Several respondents stressed it was essential to forge strong partnerships with their distributors, and many worked in partnership with retailers and other distributors particularly in the informal sector. This was discussed briefly under the 'distribution channel' section. Several companies said they became more heavily involved along the value chain in low-income markets and viewed distributors as partners to be engaged, rather than adversaries. For many companies, operating in low-income markets was about *building an ecosystem*. Companies often provided under-resourced distributors with training, support and even equipment. Health insurer A also built its low-income business model around its partnership with suppliers, forging an innovative agreement with doctors where they provided exclusivity in return for major discounts: *"We had to renegotiate the whole supply chain".* And Beverage A spoke at length about how it provides informal retailers with fridges and coolers:

Beverage A: "In this market it's much more about developing a partnership (with distributors), whereby both of us are growing revenue. At the top end it's all about negotiating prices, the relationship is more adversarial. In this market there is no negotiation, we set the price, but there is an opportunity to influence the amount of money made. So there's more trust, more partnership and effort to create value for both sides."

Health Insurer A: " You really have to rely on GPs and we have a whole team working on that. Network management is a big thing that we had to master ... We are involved in the delivery of the actual health and helping doctors make referrals – we will *recommend to doctors which specialists to use. We don't get that involved in the traditional market ... We also train doctors heavily in the product, and in how to run a profitable practice."*

For example, Mr C and Mr G, franchise owners for Retailer A partnered with suppliers rather than distributors, redesigning their supply chain in order to purchase stock from local farmers through a distributed production model

Mr I at Tech A, probably the most product-focused company interviewed, noted that "*the biggest single obstacle that you will hit is how to actually take something to market and that is when you have got to look at partnerships: you are not going to achieve it alone"*. He said it was impossible for any large company to penetrate low-income markets without forming partners to create additional reach and to achieve the scale necessary to make the high-volume low-margin model viable. While Tech A pursues an alliance-focused strategy across all its markets, it said that partnerships were even more essential in this segment. Contrary to the consumer companies who said they tended to be *more involved* and take *greater* ownership of distributor relationships at the base of the pyramid, Tech A said it was forced to adopt a more hands-off approach in this market, and was even more dependent on the knowledge and expertise of partners:

Tech A, Mr C: "We will account-manage and build relationships with our very high end customers, the large banks, the large insurance companies -- we own those relationships. But when it comes down to the emerging markets we surround ourselves with institutions that then take on that responsibility on our behalf …So in the very high end of the market we sell directly, in the middle sector we do what we call telesales management where we may manage the customer or sell directly to them, but in much more of a hands off way, and in the lower income we drive it all through our partners."

Bank C also said it it had developed a much broader network of partners in this segment that in its traditional markets, including with other units of its own business, local government and other companies and foundations. This was evident in a story about how the company partnered with its own corporate division, a local farmers support body, local government and a major equipment manufacturer to develop a system for leasing farming equipment to poor rural communities:

Bank C, Mr J: "So the partnerships are almost new for us, especially the internal partnerships. But we are starting to see some traction there. We are looking at partnerships with external companies, not related to banking at all …. which will be an interesting first I think … I guess partnerships in themselves are almost like a form of innovation, so if you don't do that you are not going to survive."

- Community Engagement

The second strong theme emerging around partnerships was the importance of community engagement, and of involving customers in co-creation of products and business models. Almost all companies stressed the importance of spending time with customers to understand their needs, and of engaging with community leaders, particularly in rural communities, in order to secure buy-in for their offerings.

Several companies said they used a constant iterative process to ensure that customer feedback was integrated to improve products, services and systems. However some companies provided more extensive examples of how they engaged communities *prior* to entering a community. Bank C, for example, developed an extensive consultation process which it uses when it enters rural communities:

Bank C, Mr J: "We would go and engage with the Chiefs, the Kings if relevant, and the influential players within the community, to say this is what we would like to do to add value to your communities, basically 'how about it?' They go 'yes, but we want X, Y and

Z' and we will go 'we will see what we can do' ... it is basically seeking permission from the community but making sure they are involved in the process as well."

Several companies gave examples of how ideas for new products or services emerged from consultation with communities. Bank C said that several products, including a new offering based on a group-lending model, emerged from conversations with the community. Bank A said that if it were to re-do the market entry process, it would have engaged more closely with communities and customers in what it called the "design phase": *"I think had we done proper co-creation from the start we probably would have made less mistakes then we did on this journey."* Bank A said it would soon be collaborating with banks in four other emerging markets on a formal co-creation process to develop a new product for the low-income market.

Retailer A had perhaps the most rigorous process for pre-launch community engagement, crediting its success to this approach. Mr G and Mr C, who jointly opened Retailer A's first black-owned township store in 2005, began the careful process of introduction, engagement and relationship-building many months before the store was opened. The owners spent time engaging local political leaders, churches, schools, informal traders and became involved with various community upliftment programmes even before they began work on the store. They ran an advertising campaign introducing "George" – the store manager – to the community, reflecting their emphasis on the personal and the relational. They also developed supplier relationships with local farmers, and sponsored a local community radio discussion. The two men hosted a traditional ceremony to bless the store before it was opened, involving community and spiritual leaders. When the store opened there were lines of customers snaking for 2km down the street for seven days, and it is still doing brisk trade:

Retailer, Mr G: "You don't just walk into someone's house and sit down, and you don't just arrogantly open a shop without engaging."

5.4.11 Cannibalisation/Encroachment

Eleven of the 19 respondents representing seven firms said that the risk that new offerings aimed at low-income markets might eventually cannibalise, or encroach upon their traditional offerings and market was an issue that they had considered when entering this segment, although they varied in whether they believed it was a legitimate risk. Several said there was no risk of cannibalising their traditional offerings because the distribution channels were so different for the low versus mid-to high income markets. Several respondents said that encroachment was a *positive* development, because innovations developed for low-income markets often found a broader market higher up the pyramid.

Some respondents said that the risk of cheaper offerings aimed at low-income markets cannibalisation higher-margin business in traditional markets had been considered by the company, but stressed that the potential upside offset the risk. They had also developed ways of managing the risk:

Bank A: "You spend so much time dealing with the bank's fears of cannibalisation of its current markets that you're actually not spending all that time and energy on getting what's right for the new market. And we've come up with ways to reduce the risk and I think eventually we have established philosophically that if you going to allow yourself to be driven by the fear of cannibalisation you're going to end up being the guy that thought of it first but never did it because you were scared."

Health Insurer A said it had worked to mitigate the risk of cannibalisation by restricting choice particularly in wealthier areas to limit the appeal to higher-income groups, while Retailer B said it was tackling the risk that its retail format would kill the group's cash 'n carry wholesale business by getting to market head of competitors:

Retailer B: "The more successful this retail format is, the less successful our wholesale format is going to be, because we are going to kill that trade ... So it is a little bit of creative destruction we are involved in here. We know wholesale is going to find a different level to where it has been but we are either going to have it done to us or done to ourselves."

Tech A also said there was some anxiety in the company about cannibalisation as the low-income market becomes an increasingly important segment of the business, and as solutions for this market become more widely available, but the respondent himself, like Bank A, argued this would be offset by the upside growth:

Tech A, Mr I: "The toughest thing to overcome is the internal mindset and to shift it, and to say well yes it may cannibalise a tiny little percent of your overall market but you are actually expanding your market by 50% by doing this."

One of the more interesting findings was the number of respondents who described how either products or business models developed in and for low-income markets had often "trickled upwards" and were now being marketed or employed in the firms' traditional markets. Tech A, for example, described how its shared computing concept - which was developed for low-income markets where schools could only afford one PC rather than a whole lab – was now being exported to Europe and the United. Bank C began its strategy of offering banking services at a counter in major retailers as a response to the need for low-cost infrastructure to serve low-income areas, but is now rolling out a similar strategy in its traditional markets. Beverage A said it had learned valuable lessons in the low-income market about building leverage and influence with distributors, which it was now applying to its relationships with retailers in its traditional market.

5.4.12 Conclusion to Proposition three

It is clear from the results that the companies interviewed exhibited the elements of disruptive innovation as described above, and that the respondents considered these elements to be important for companies engaging low-income markets. The most important elements to emerge were business model innovation, adapting offerings along different dimensions of value, partnerships and community engagement, affordability, new and relevant distribution channels, new cost structures, simplicity, convenience and cannibalisation. There was moderate evidence to suggest that companies should consider overhauling product architecture, however this was more muted. It is particularly interesting to note that business model innovation was considered significantly more important than product innovation, and that some companies are seeing their low-income offerings ‘trickle-up’ to customers in more developed markets.

5.5 Conclusion to Chapter Five

Broadly speaking, the three propositions were supported by the data.

Companies were driven to enter lower-income markets principally by the perceived opportunity for new growth and the pressure to develop new income streams, although most companies were also influenced by secondary factors, which combined with the desire for growth to drive market entry.

There was strong evidence to support the proposition that ‘negative’ factors or constraints prompt companies to innovate in low-income markets. Lack of infrastructure was the most common trigger, followed by limited buying power in the target market. In one third of the examples, the company in question turned its innovative response to the ‘constraint’ or negative factor into a competitive advantage, going beyond simply solving the problem at hand.

It was also clear from the results that the companies interviewed exhibited the elements of disruptive innovation, as proposed. The most important elements to emerge were business model innovation, adapting offerings along different dimensions of value, affordability, new and relevant distribution channels, new cost structures, simplicity, convenience and cannibalisation. There was moderate evidence to suggest that companies should consider overhauling product architecture. The importance of partnerships also emerged as a strong theme.

6.0 CHAPTER SIX: DISCUSSIONS OF RESULTS

6.1 Introduction

The previous chapter presented the results from the research process, in which three propositions derived from the literature on innovation and on low-income markets were tested through interviews with 19 executives working in companies in South Africa that are engaging with low-income markets. This chapter will discuss the findings in relation to previous research on innovation and low-income markets.

Each of the three propositions tested was broadly supported by the data, with some sub-themes emerging more strongly than others. The results were both concurrent with the literature on many levels, but surfaced new findings, and contradicted the literature on some points. Each of the propositions will be discussed separately below, with tables to illustrate where the data overlapped and departed from previous research. A descriptive model presenting an overview of innovation in a low-income market context will then be presented. This will be followed by the more detailed 'Emerging Consumer Innovation Web' model, which is based on the results for Proposition three, and illustrates how the elements of disruptive innovation can be used as a framework for describing innovation in low-income markets.

6.2 Discussion of Research Proposition One

Research Proposition One is concerned with the drivers of market entry for companies engaging with the base of the pyramid. The table below illustrates which of the drivers cited in the literature were supported by the data, and highlights additional drivers that emerged from the interviews, which are in italics. The themes that emerged most strongly are in bold.

Table 6.1: Drivers for market entry: data versus literature

Driver	Literature	Data
New market opportunity	**Yes**	**Yes (strong)**
Running Out of Road	**Yes**	**Yes (strong)**
Creating feeder markets	*No*	*Yes (moderate)*
CSI/mission related	Yes	Yes (moderate)
Creating leverage in other markets	*No*	*Yes (moderate)*
Change in political/legislative climate	Yes	Yes (moderate)
Regulation	Yes	Yes (weak)
Accidental	*No*	*No (weak)*

The data concurred broadly with the literature in identifying the opportunity for growth and the imperative to find new markets as existing ones become saturated as the strongest drivers. But the data also painted a more complex picture, illustrating that secondary drivers often played a role in driving companies to enter low-income markets.

The literature on low-income markets argues that the BoP represents a major opportunity to create and capture vast new markets (Prahalad & Hart, 2002; Prahalad, 2005; Pitta, Guesalaga & Marshall, 2008).The data concurred with this idea, showing that most companies were seeking to reach consumers that had previously been ignored, and who represented an unexploited opportunity. This concurs with Prahalad and Hart’s (2002) contention that companies have historically failed to capture the “fortune” at the bottom of the pyramid, and have the potential to serve these markets profitably.

The data also concurred with the literature by showing that 'running out of road' was a major driver for low-income market entry. Like the Indian companies which formed the basis for a recent article by Prahalad and Mashelkar (2010), the South African firms interviewed noted that catering purely to the middle and higher income domestic market would limit opportunity for growth, and that expanding down the pyramid was in some cases essential for their long-term survival. This was consistent with the view (Christensen 1997; Christensen and Raynor, 2003; Tidd *et al,* 2005) that firms need to position themselves to reach whole new markets as their existing ones mature. Bank C, for example, was particularly vocal in this regard, noting that it had literally "run out of road" on its strategy of being a niche upmarket bank, and was trying to reposition itself as an inclusive player.

Whilst these two drivers emerged most decisively from the research, most respondents also cited secondary factors, some of which were cited in the literature. Several, for example, said that alongside the main profit motive, either the company or individual was also driven by a mission-related purpose to alleviate poverty. This is consistent with much of the literature on the base of the pyramid, which argues that firms can do good at the same time as doing well (Prahalad, 2005; Pitta *et al;* Jose, 2008; Mendoza & Thelen, 2008). The other two drivers which emerged from the literature – regulation and the emergence of new political rules (Tidd *et al,* 2005) – were only moderately supported by the data, and usually as a secondary factor. For example, one of the retailers said the combination of the market opportunity, the fact that its existing markets were maturing and the political imperative to complete a black economic empowerment exercise drove its decision to expand its presence in low-income markets.

Two other drivers emerged relatively strongly from the data which were not identified as strong factors in the literature – the desire to create feeder markets for the future, and the desire to create leverage in other markets. The latter driver has not been discussed at length in academic literature, to this researcher's knowledge, but has recently been explored in the popular press and in practitioner journals in relation to the concept of 'reverse innovation', which argues that companies should view low-income markets as a source of innovation and an arena for learning, from which products and business models can be harvested then exported back to western markets (Immelt *et al*, 2009; Hart, 2010; Prahalad and Mashelkar, 2010). Several of the companies interviewed discussed how the lessons they had learned in low-income markets had also informed their strategy in traditional markets.

In conclusion, the data from the study supported the literature in identifying the opportunity for revenue growth and the desire to offset slower growth in existing markets as the key drivers for companies entering emerging markets. However the data also painted a more complex picture, with most respondents also citing 'softer' secondary factors. The picture that emerged from the data appeared to be more complex than the dual purpose of 'doing good and doing well' cited in some of the literature on low-income markets, including Prahalad's influential work. Many companies cited a mix of profit-related, mission-related, regulatory, social, and strategic factors, suggesting that the drivers for companies to enter low-income markets may be more multi-faceted than previously assumed. It was also particularly interesting to note that some companies entered low-income markets in order to create leverage in other markets – a driver that has not been explored in the literature to this researcher's knowledge.

6.3 Discussion for Research Proposition Two

Research Proposition Two was concerned with the triggers for innovation in low-income markets, and posited that in a low-income market context, it is *negative,* rather than *positive* factors which act as triggers for innovation. This broad proposition was supported strongly by the data collected, with a total of 51 examples of cases from across the 19 interviews where a negative factor had prompted an innovative response. Specific innovations were cited from respondents at virtually all of the companies interviewed.

The literature on low-income markets urges firms to innovate in order to circumvent the challenges listed above (Prahalad, 2010; Hammond and Prahalad, 2004; Bruton, 2010; Pitta *et al,* 2008; Sul *et al*, 2003; Anderson and Billou, 2007). However the findings from the data go one step further than most of this literature, illustrating not only that innovation is *necessary* to circumvent constraints, but that these constraints themselves in fact *trigger* innovation. As discussed, the respondents cited 51 examples where one of the negative factors listed above triggered a specific innovation. Most interestingly, the data showed that in one third of these cases, the company in question turned its response into a competitive advantage. This was particularly noticeable when the negative trigger was 'lack of infrastructure' or 'limited buying power'. To this researcher's knowledge, this interesting concept has not been explored in detail in the literature.

These findings come in stark contrast to the literature on national systems of innovation, which argues that innovation is triggered by largely *positive* factors such as strong institutions (Lundvall, 1992; Nelson, 2006) and sophisticated consumer demand (Foster, 1986; Von Hippel, 1988; Malerba, 2005). The findings strongly suggest that this is not necessarily the case in low-income markets. Very few companies cited these positive triggers as determining factors. The findings suggest that a different framework of innovation is necessary for this context, one which recognises the power of negative factors as triggers for innovation, and for creating competitive advantage. The data suggests that companies may wish to think differently about the way they view so-called 'constraints' or challenges in low-income markets – an idea that will be explored further in Chapter Seven.

Some differences emerged between the data and the literature on low-income markets around exactly *which* negative factors were most important for the companies interviewed, and which triggered innovation. The table below shows which negative triggers were identified in both the literature AND the data, which ones emerged only from the data, and which were identified in the literature but were NOT supported by the data. Those triggers which emerged most strongly from the data are in bold.

Table 6.2: Innovation triggers: data vs literature

Trigger	Literature	Data
Lack of infrastructure	**Yes**	**Yes (strong)**
Limited buying power	**Yes**	**Yes (strong)**
Security	No	Yes (moderate)
Lack of skills/literacy	Yes	Yes (moderate)
Community opposition	No	Yes (weak)
Conflict	Yes	No
Corruption	Yes	No

The findings reflect the arguments of several researchers on low-income markets, who note that lack of infrastructure (Vachani and Smith, 2008; Prahalad, 2005; Hammond and Prahalad, 2004, Anderson & Billou, 2007) and limited buying power (Hammond and Prahalad, 2005; Prahalad and Hart, 2004; Anderson and Billou, 2007; Anthony *et al,* 2008) in particular can pose challenges to companies doing business at the base of the pyramid, and require innovative solutions. These two themes emerged strongly when respondents talked about the problems they faced, and were most likely to trigger an innovative response. Security also emerged relatively strongly – a theme which was not cited in the literature. However conflict and, interestingly, corruption, were not cited by a single respondent. This finding contradicted those of several writers on low-income markets, who had cited these two factors as significant constraints (Prahalad, 2005; Hammond and Prahalad 2004; Anderson and Billou, 2007; Mendoza and Thelen, 2008; Vachani and Smith, 2008). This may be due to the bias associated with having a sample based only in the South African context, where conflict is not currently an issue, and where corruption is perhaps not as rife as in some other developing countries. It may also be the case that respondents chose not to discuss the challenges of corruption.

6.4 Discussion for Research Proposition Three

6.4.1 Introduction

Research proposition three was concerned with *how* companies innovate in low-income markets. It suggested that companies doing business in low-income markets either exhibit the elements of disruptive innovation, or believe that these elements should be considered when entering low-income markets.

According to Christensen, who developed the influential theory of disruptive innovation, disruptive offerings tend to be more **affordable, simpler**, provide greater **convenience** to the customer and, while they generally underperform versus existing offerings along traditional dimensions, they often offer ***different*** **features which are valued by the new customer segment** (Christensen, 1997; Christensen and Raynor, 2003). Disruptive innovations often require **new business models** and **cost structures**, and are often produced at lower margins (Christensen, Johnson and Barragee, 2000), and often require an overhaul of **product architecture** (Christensen, Suarez and Utterback, 1998). Eventually, disruptive innovations improve along the traditional value dimension and encroach, or **cannibalise**, the mainstream market (Christensen, 1997).

The following quote illustrates the extent to which many managers entering low-income markets are adhering to Christensen's mandate, and showing the extent to which the data supported the literature on disruptive innovation:

"Your (low-income) customers will be open to doing things differently because they not as vested in traditional way of doing things, and it is there where the chance for radical innovation actually opens up. Once you use that as the starting point you no longer do incremental innovation or process innovation you are no longer just trying to take what you do and pushing it down the pyramid. It is about what the customer needs and wants and what the customer is willing to pay for it ... and what that allows you to do is to make some radical shifts in the way you do business. But if you start any other place all you do is incremental stuff and that's always a mess ... We need to say: OK how do we do things completely differently?"

Broadly speaking, the data illustrated that the companies doing business in low-income markets were in fact following the recipe for disruptive innovation prescribed by Christensen (Christensen, 1997; Christensen & Raynor, 2003), whether they realise it or not. Some elements emerged more strongly than others, whilst additional elements were also cited. The table below illustrates which of the elements that emerged from the data were specifically cited by Christensen as elements of disruptive innovation (in red), which are cited in the literature on low-income markets but not in the disruptive innovation literature (yellow), and which were consistent across the data and both sets of literature (green).

Element	**Data**	**Disruptive Innovation Literature**	**Low-income markets literature**
Affordability	Y (Strong)	Y	Y
Different dimensions of value	Y (Strong)	Y	Y
Simplicity	Y (Strong)	Y	Y
Convenience	Y (Strong)	Y	Y
Business model change	Y (Strong)	Y	Y
Architecture overhaul	Y (Medium)	Y	Y
New cost structures	Y (Strong)	Y	Y
New distribution channels	Y (Strong)	N	Y
Partnerships/community engagement	Y (Strong)	N	Y
Cannibalisation/encroachment	Y (Medium)	Y	N

Interestingly, most of the strongest elements to emerge from the data concurred with both the literature on disruptive innovation and on low-income markets. This was particularly noticeable for the themes of developing new business models and adapting offerings in line with different dimensions of value. These two elements will be discussed in more detail below.

6.4.2 New business models

Many of the respondents commented that they needed to adjust their businesses to a 'high volume low margin' model when they entered lower-income markets. This reflected the findings of both the innovation literature, which notes that disruptive innovations must be produced for less, sold for less and will probably return lower gross margins (Christensen, Johnson and Barragree, 2000), as well as low-income market researchers, who urge companies to overhaul their antiquated business models to focus on high-volume-low-margin models (Hammond & Prahalad, 2004; Anderson & Markides, 2007). Many of the respondents echoed Prahalad's comment that "retrofitting" business models would not work (Prahalad, 2010), and many underscored the importance of overhauling business solutions across operations (Olsen & Boxembaum, 2009).

In the results section, costs and distribution channels were treated as separate elements, due to the volume of data, although clearly these themes also fall under the broader 'business model' banner. The focus on cost concurs strongly with the literature. Christensen, for example, notes that companies entering low-income markets often struggle because they view the new markets through the prism of their existing cost structures (Christensen *et al,* 2001). Researchers on low-income markets echo this view, with Prahalad urging companies to completely overhaul their cost structures (2005). This was strongly reflected in the data, particularly in the discussions with the banks, which are trying to find radically new business models, including new cost structures and distribution channels for their offerings.

The need for new distribution channels, arguably an aspect of business model change, also emerged strongly from the data. This concurred with the literature on low-income markets, which stresses the importance of finding new distribution channels to increase accessibility of offerings to consumers in low-income markets (Anderson and Billou, 2008; Vachani & Smith, 2008; Hammond & Prahalad, 2004). Distribution is not explicitly addressed in the literature on disruptive innovation, but could arguably be added to that theory to build a model of innovation more applicable to low-income markets. Distribution will therefore be included as a component, when the 'Emerging Consumer Innovation Web' model is presented later in the chapter.

6.4.3 Different dimensions of performance

The other element to emerge most strongly across both sets of literature and from the data was the need for companies to change the performance parameters of their offerings in line with the dimensions valued by the new market. Christensen (1997) states that disruptive offerings usually underperform along traditional dimensions of value, but instead offered value along different dimensions.

The data from respondents strongly reflected Christensen's description of disruptive innovation in this regard. Tech A for example was explicit about saying that some base of the pyramid offerings were "good enough" – not as sophisticated as higher-end products, but "better than nothing", and of course significantly more affordable and accessible. The retailers insisted that they did not compromise on quality, but admitted that they scaled back costs by compromising on the level of personal customer service, and also offered more affordable and accessible products. The health insurer interestingly said it did not sacrifice the quality of care offered, but dramatically scaled back the choice available in order to make the product cheaper – a dimension more highly valued by the new market.

The data also reflected the findings from the research on low-income markets which stresses that offerings designed for low-income markets must be based on an acute understanding of the customer's needs and on the performance parameters they value (Markides & Oyon, 2010). Almost all firms stressed the importance of relevance, and said that firms needed to adapt their offerings for the market, often designing them from scratch (Danneels, 2004; Pitta *et al,* 2008; Sehgal *et al,* 2010). This was particularly noticeable in the interviews with respondents from the banks, all of whom noted that an original 'scaled down' banking product did not work, while later products and offerings that were designed from scratch had more success.

6.4.4 Other elements

Almost all of the elements identified by Christensen as elements of disruptive innovation were also reflected in the primary data, with particularly strong support for affordability, simplicity and convenience. There was moderate support for architectural overhaul and cannibalisation. One of the most striking findings, however, was that one of the strongest themes to emerge from the interviews was NOT identified as an element of disruptive innovation – the importance of partnerships.

6.4.5 Partnerships

Almost all of the respondents stressed the importance of forging relationships with suppliers, distributors, internal departments, other companies, government, NGOs and customers themselves. Whilst this theme was not underscored by Christensen and the disruptive innovation writers, it features prominently in the literature on doing business in low-income markets. The data strongly supports some of the most recent literature on the base of the pyramid, which argues that companies need to build ecosystems and networks to thrive in low-income markets (Simansis and Hart, 2008; Jose, 2008; Prahalad, 2010). The health insurer, for example, talked about the importance of 'network management', with a focus on relationships along the supply chain, including doctors and brokers. The two beverage companies also illustrated this point, describing much deeper and more collaborative relationships with their distributors in low-income markets than with traditional retailers.

Simansis and Hart (2008) also stress the importance of partnering with consumers themselves, and advocate a complex process of co-creation in their oft-quoted BOP Protocol 2.0 document, whereby companies and communities form jointly-operated companies and engage in joint innovation. They argue that rather than concentrating on business model innovation, companies should focus their efforts on 'business model intimacy', which involves interdependence and a shared sense of project ownership, where both the companies and consumers are committed to each other's success (Simansis and Hart, 2008). Few of the respondents interviewed had engaged in co-creation to the extent advocated by Simansis and Hart, but several said they had developed formal processes for involving customers in developing new offerings, and some said they planned to engage in more formal co-creation in the future. One company said it was due to take part in a cooperative co-creation project with other international banks to experiment with models of formal co-creation and business model intimacy.

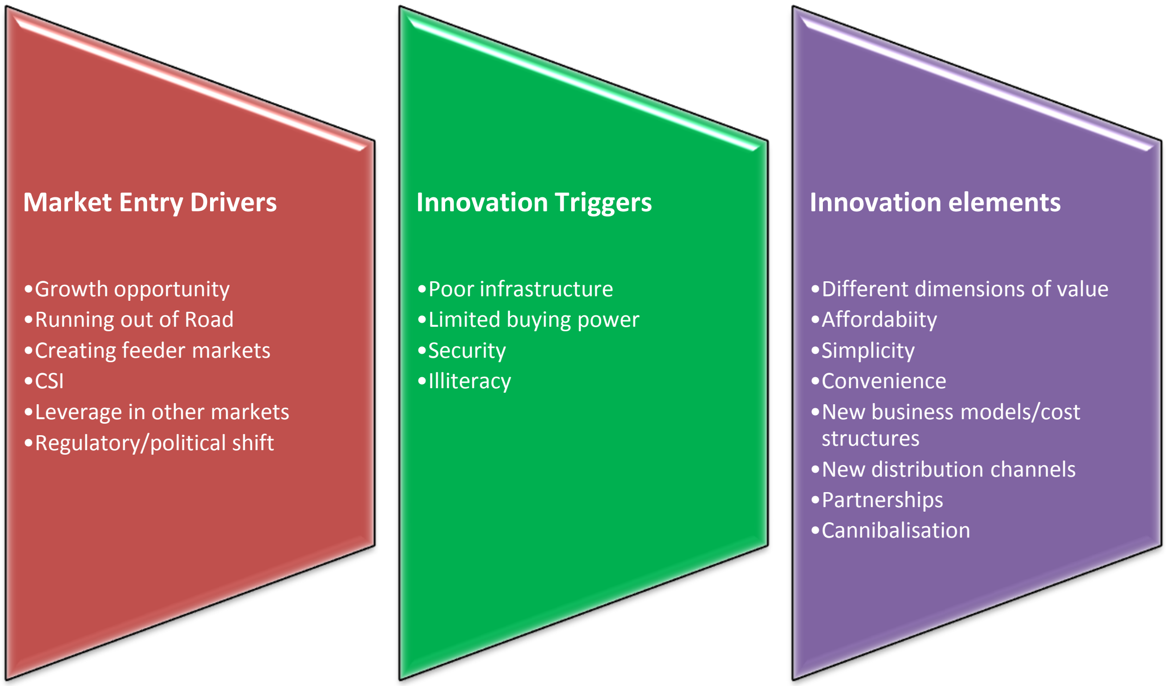
6.4.6 Conclusion: Proposition three

In conclusion, therefore, the data was largely supportive of the literature on both disruptive innovation and low-income markets, suggesting that companies are in fact engaging in disruptive innovation when they engage low-income markets, and that the theory of disruptive innovation provides a useful framework for companies entering low-income markets. The data showed that some elements appear to be more important than others, and that business model innovation appears to be more significant than product innovation. However it should be noted that disruptive innovation as described by Christensen is lacking two significant elements which was considered by respondents to be a crucial consideration for companies in low-income markets, which are the need to reinvent distribution models and the need to forge partnerships with both other organisations and companies, and with customers themselves.

6.5 Innovation in a low-income context: a descriptive model

The following descriptive model was developed in order to synthesise the findings from this exploratory research into how companies approach innovation in low-income markets. It provides an overview of the process, showing the drivers for companies to enter low-income markets in the first place, the triggers for innovation in these markets, and the elements or characteristics of innovation exhibited by companies engaging the base of the pyramid. It may prove useful for companies seeking a framework for understanding the innovation process in low-income markets.

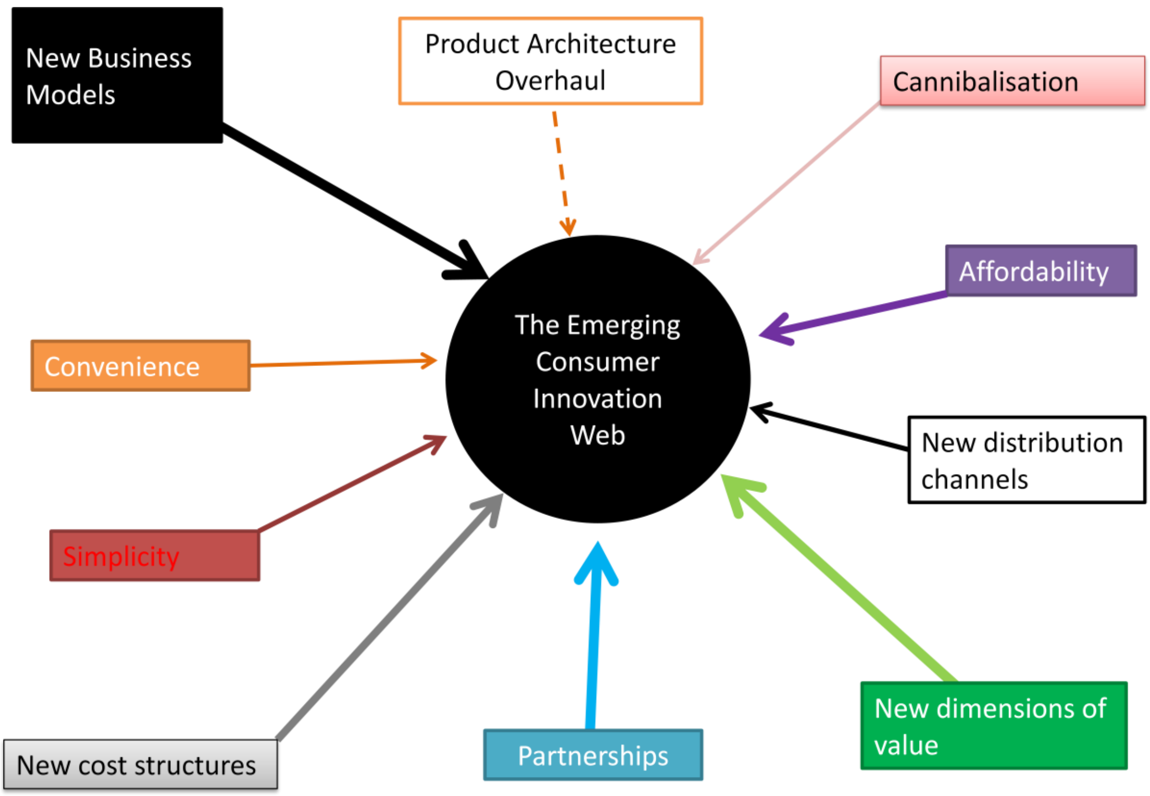
Figure 6.1: Innovation in a low-income context: an overview descriptive model



6.6 The Emerging Consumer Innovation Web

It was decided that the findings from proposition three were sufficiently strong to merit a stand-alone model. The following model was developed to describe the elements of innovation in low-income markets. It integrates the elements of disruptive innovation, as surfaced from the literature and tested in the primary data phase, with other elements that also emerged from the data. The themes of 'partnerships' and 'new distribution channels' have been added to the elements of disruptive innovation, reflecting the view of respondents that these are important characteristics of innovation in low-income markets. The most important themes to emerge from the study are linked to the centre with stronger lines, while those shown by the data to be less prominent are linked with weaker, or even dotted lines.

Figure 6.2: The Emerging Consumer Innovation Web.



6.7 Conclusion to Chapter Six

In conclusion, each of the three propositions tested was broadly supported by the data, with some notable contradictions and additions.

The data supported the literature in identifying the opportunity for revenue growth and the desire to offset slower growth in existing markets as the key drivers for companies entering emerging markets. However, it painted a more complex picture than the dual purpose of 'doing good and doing well' cited in some of the literature on low-income markets. Many companies cited a mix of profit-related, mission-related, regulatory, social, and strategic factors. This suggested that the drivers for companies to enter low-income markets may be more multi-faceted than previously assumed.

The findings regarding proposition two showed not only that innovation is *necessary* to circumvent constraints, as explained in the literature, but that these constraints themselves in fact *trigger* innovation. These findings contrast with the literature on national systems of innovation, which argues that innovation is triggered by largely *positive* factors such as strong institutions and sophisticated consumer demand. The findings strongly suggest that this is not necessarily the case in low-income markets, and that a different framework of innovation is necessary for this context.

Finally, the data was largely supportive of the literature on both disruptive innovation and low-income markets, suggesting that the theory of disruptive innovation provides a useful framework for companies entering low-income markets. However the data added to the literature by highlighting that disruptive innovation as described by Christensen is lacking two significant elements when applied to a low-income context: the need to reinvent distribution models and the need to forge partnerships with both other organisations and companies, and with customers themselves.

The Emerging Consumer Innovation Web was presented as a model illustrating the elements of innovation in low-income markets, while the innovation overview model provides a framework illuminating the market-entry drivers, the triggers for innovation and the characteristics of innovation in low-income markets.

7.0 CHAPTER SEVEN: CONCLUSION

7.1 Introduction

The previous chapter discussed the research findings in the context of existing literature on innovation and low-income markets. This chapter will briefly review the background to the research problem and objectives set at the outset of the project, before summarising the main findings, outlining some recommendations to business, considering the limitations of the research and the implications for future research, and providing a conclusion to the research report.

7.2 Research background and objectives

As western markets stagnate, companies are increasingly looking to the emerging world for growth (Immelt *et al,* 2009). In recent years, firms have begun to focus on low-income segments within these emerging markets, embracing the theory that by developing offerings for the four billion micro-consumers at the base of the pyramid, companies can tap into vast new markets whilst also building inclusive markets and contributing to poverty alleviation (Prahalad and Hart, 2002; Prahalad, 2005; Hammond and Prahalad, 2004). However, in order to successfully engage these emerging consumers, companies need to innovate around their product offerings and business models Prahalad & Hart, 2002; Anderson & Billou, 2007; Anderson & Markides, 2007; Christensen, Craig & Hart, 2001). While articles in popular and practitioner journals have highlighted concepts such as "frugal engineering" (Sehgal *et al,* 2010), and "reverse innovation" (Immelt *et al,* 2009) whereby companies develop low-cost innovations from scratch for consumers in low-income markets, very little academic research has been conducted into why and how companies innovate in low-income markets.

The objective of this report, therefore, was to explore the reasons companies enter low-income markets, the triggers for innovation in low-income markets, and the characteristics of innovation in low-income markets, within a South African context. Drawing particularly on Christensen's theory of disruptive innovation (Christensen 1997; Christensen & Raynor, 2003), it aimed to develop a framework for better understanding why and how companies innovate in low-income markets. It drew on the innovation literature and on the literature around low-income markets to craft more detailed propositions to guide the exploratory research process. Broadly speaking, the propositions derived from the literature were supported by the data. The report then offered two models for better framing an understanding of innovation in low-income markets: Innovation in low-income contexts: a descriptive model, and the Emerging Consumer Innovation Web.

7.3 Main Findings

Nineteen in-depth expert interviews were conducted with executives from 11 different companies in order to test propositions that were derived from the literature review.

The results showed that companies enter low-income markets largely out of a pursuit for new growth, especially given stagnation in more developed markets. However other moral, social, regulatory and strategic factors also combined with the drive for growth to influence decision making. The data suggested that the drivers for companies to enter low-income markets may be more complex than previously suggested.

The data also showed that in low-income markets, 'negative' factors such as lack of infrastructure and limited buying power often act as triggers for innovation. This was particularly interesting because it contrasts sharply with much of the innovation literature, which shows that innovation is usually triggered by largely 'positive' factors such as sophisticated consumer demand, strong institutions and advanced networks of learning. Not only were constraints such as lack of infrastructure and limited buying power found to trigger innovation, but in one third of the cases, that innovation helped create a significant competitive advantage over and above solving the initial problem.

The third key finding was the evidence that companies do in fact exhibit the elements of disruptive innovation, as described by Christensen, when they enter low-income markets. The companies interviewed developed more **affordable, simpler,** and more **convenient** offerings which were designed along **different performance parameters.** The companies created **new business models** and **new cost structures,** some of them **overhauled product architecture** and they were largely aware that the new offerings may **cannibalise** their existing offerings. Two extra elements which were not cited by Christensen, but which feature in the literature on low-income markets, emerged strongly from the data: the need to **build partnerships** along the value chain and with consumers, and to develop **new distribution channels** to reach emerging consumers. These findings support the view that disruptive innovation provides a useful framework to understand how companies innovate in low-income markets, and contributed to formulating the Emerging Consumer Innovation Web model. An interesting sub-finding emerged from proposition three, suggesting that many companies placed more emphasis on business model innovation than on product innovation. This was a theme, rather than a conclusive finding, and may merit further research.

7.4 Recommendations to business

The findings from all three propositions provide useful insights for businesses operating in, or considering operating in low-income markets. The descriptive overview model shown at Figure 6.2 in Chapter Six provides a useful overview framework to help companies think about their innovation approach in low-income markets. It illustrates the reasons cited by companies for entering low-income markets, the triggers for innovation in those markets and the characteristics of that innovation. This overview model may help firms better frame, order and articulate their approach to low-income markets.

The first set of findings, which indicate that companies enter low-income markets primarily in pursuit of growth but that a variety of secondary factors also play a role, may help companies formulate a clearer understanding of their own motivation for entering low-income markets. Clarifying the key drivers for market entry will ensure that key executives and other staff are aligned in their objectives. For example, if a company entered a low-income market in order to capitalise on growth, but also in order to strengthen buying power in other markets, it is important that all key decision makers recognise that dual purpose, and are able to craft the appropriate strategies. Companies would also be advised to consider these different drivers when analysing competitor strategies. Companies should not assume that a competitor is entering a low-income market purely in pursuit of growth – other factors, such as the desire to contribute to CSI, the desire to create leverage in other existing markets, or the need to meet regulatory requirements may also play a role. An analysis of these different drivers may help companies compile more accurate and more comprehensive analysis of competitor strategies.

A key recommendation for business emerged from the second set of findings. The fact that factors previously considered as 'constraints' to be circumvented – such as limited buying power of lack of infrastructure – may act as triggers for innovation, should prompt companies to change the way they think about the external environment and about their own innovation processes. This finding suggests that in order to succeed in low-income communities, **companies should embrace the challenges that are inherent in these markets, and use them as springboards for innovation**. They should also see low-income markets as a *source* of innovation, rather than focusing all innovation efforts on meeting the sophisticated demands of first-world users. And when they innovate in response to challenges in low-income markets, they should look for ways to convert that innovation into a strategic competitive advantage.

Finally, companies are recommended to use the Emerging Consumer Innovation Web as a framework for understanding how innovation works in low-income markets. Whilst the model is only descriptive, and therefore does not constitute a blueprint for successful innovation in low-income markets, it does provide a guideline. It is recommended that companies keep in mind the elements of the Emerging Consumer Web when designing innovation strategies. They should think about developing affordable, simple, convenient offerings which are designed from scratch to meet the specific demands of emerging consumers. They should consider developing new business models with new cost structures and using new distribution channels to reach low-income markets. And they should implement their strategies through extensive partnerships along the value chain and with their customers.

7.5 Limitations of the research

All the findings above are limited by the fact that qualitative research can only be generalised to theory rather than to a population. In order to test the findings and the theories that emerged from the research, quantitative research should also be conducted.

It should also be noted that the theories and frameworks generated by this research are purely descriptive. They provide a picture of what is happening, based on the opinions and information provided by key executives at those companies. This research did not seek to test constructs against outcomes, nor to provide a blueprint for how innovation *should* happen, rather simply a description of how it *does* happen. For a blueprint that would offer best-practice guidelines and recommendations for companies, an explanatory study – either quantitative or qualitative – would need to be conducted to surface causal links between certain actions, decisions or behaviours, and certain outcomes.

Another key limitation is the fact that the population was defined as companies engaging with low-income markets in South Africa, due to the researcher's location. While findings in South Africa may be useful to other low-income markets, a broader sample from different developing countries would have been preferable. The location of the sample may have prejudiced certain findings – for example the fact that conflict and corruption were not major triggers for innovation, but that security was a strong factor, may reflect the particular South African context, and may not be replicable to other contexts.

Another potential limitation is the bias in the sample toward financial and retail companies. It would have been preferable to interview a greater number of product-focused companies, particularly in the technology sector. This sample bias may have impacted the finding that companies appeared to be more focused on innovating around their business models than they were around product innovation. Further research would need to be done to corroborate the suggestion that business model innovation may be considered to be more important by companies than product innovation in low-income innovation.

It would also have been preferable to include a broader range of industries, and a greater number of respondents for each industry, in order to conduct sectoral comparison. It may be that other findings were also skewed due to the dominance of financial services and retail companies in the sample.

7.6 Implications for future research

As suggested above, this study was exploratory, and focused on building theory, rather than on testing that theory. Future avenues for research might include an explanatory study – quantitative or qualitative -- to test the models presented herein, particularly the Emerging Consumer Innovation Web. For example, is there any evidence to suggest that exhibiting the elements of the Web leads to greater success in low-income markets? Do companies that exhibit these elements experience more significant growth in low-income markets? Do certain elements appear to be more important, when tested in a larger sample through using quantitative methodology? Do any of these elements correlate negatively with growth or profitability?

Future research might also build on the findings about market entry, by investigating possible correlation between the reason for market entry and the extent to which companies innovate, or the growth that they achieve. Does a more profit-focused approach lead to more aggressive growth, or greater profitability, or not? There is scope for more in-depth research on the finding that some companies entered low-income markets in order to create leverage in existing markets. It would be interesting to test whether this is indeed a significant phenomenon, and if so, what type of leverage is created in existing markets, as well as its scope.

There is also room for further research around the theory that in low-income markets, negative factors often act as triggers for innovation. A more extensive study might test quantitatively both the negative factors and the positive factors cited in the literature, to understand which have greater potential to trigger innovation in low-income markets. It would also be interesting to further explore the sub-theme that some companies appeared to turn a constraint or negative factor into a competitive advantage, through their use of innovation. Perhaps a more detailed theory of how this was achieved could be developed through more in-depth case studies of specific cases.

It would also be interesting to test more rigorously several sub-findings. For example, the theme that companies seem to consider business model innovation to be more important than product innovation, emerged from the data, but was not rigorously tested. This could constitute an interesting thesis in itself. This would need to be conducted across a broader range of sectors.

Another interesting theme which emerged, but was not explored in detail, was the dilemma around cannibalisation. Previous studies have shown that a willingness to cannibalise existing offerings is a key factor for the growth and survival of incumbent firms (Ghemawat, 1991), but it would be interesting to test whether this is the case for companies moving from mid/high to low-income markets. Related to this, several companies commented that they were concerned about the potential of brand dilution when launching more basic offerings in low-income markets – would these more 'basic' offerings damage their brand in traditional market? This would be an interesting avenue for research – does launching a product or service in a low-income market have any impact on brand equity in the existing market?

Finally, a cursory glance at Table 4.1, which illustrates very broadly how successful companies have been from a profit perspective, highlights a difference between companies headquartered in South Africa and the two headquartered overseas. Given that only two companies from overseas were included in the sample, it is impossible to draw conclusions. However, it was notable that the two companies from overseas appeared to be less aggressive in their pursuit of profit in low-income markets and more willing to view these markets as extensions of their CSI programmes. Possibly, this is due to the fact that they have larger footprints in more developed markets overseas, whereas South African companies – or indeed companies that derive the majority of their revenue from any emerging market – may be more dependent on expansion into low-income markets for future growth. It would be interesting to conduct a comparative study examining the motivations of local versus multi-national companies in entering low-income markets, and the different approach to profitability. This could be compared against the outcomes: are local companies more aggressive in their pursuit of profitability in low-income markets, and does this translate into larger profits?

7.7 Conclusion

As emerging countries gain a greater share of the global economy, the opportunity and challenges of doing business in low-income markets is an increasingly prominent subject for debate in the practitioner and popular press. Companies are experimenting with engaging emerging consumers, driven by the significant growth opportunities for those able to unlock the collective buying power of the poor, as well as combinations of other factors, such as the desire to contribute to poverty alleviation, to birth the inclusive markets of the future and to create leverage in existing markets. However, engaging low-income markets requires what Prahalad called a "new philosophy of innovation". Companies need to overhaul their business models, cost structures and distribution strategies, and must develop offerings from scratch, which are designed to meet the specific requirements of emerging consumers, and which are affordable, simple and convenient to use. Firms also need to change their approach to low-income markets by recognising them as a source of innovation and arena for learning.

Challenges such as poor infrastructure and limited customer buying poor should not be viewed as constraints to be circumvented or inconveniences to be overcome, but as springboards for innovation. The most visionary companies will embrace these challenges, and see in them opportunities to leapfrog ahead of competitors and to carve out competitive advantage. Low-income markets represent an opportunity for companies to energise their innovation processes and to unleash a whole new category of creativity which has the potential not only to transform the way they operate in emerging markets, but to reinvigorate their businesses in the rich world.

APPENDICES

Appendix One: List of interviewees

(Real names of individuals and companies kept by researcher)

Name of Respondent	Company Name	Sector	Role/Responsibility
Mr C	Bank A	Financial services	Head of community banking
Mr L	Bank B	Financial services	Former head of mobile commerce
Mr P	Bank C	Financial services	Head of mass market segments, personal banking
Mr K	Bank C	Financial services	Divisional executive: Strategic sales and alliances
Mr J	Bank C	Financial services	Head of BBPs
Mr L	Bank C	Financial services	Executive assistant to managing executive: Retail Banking
Mrs T	Health Insurer A	Financial services	Head of strategic and corporate affairs
Mrs M	Dairy Firm A	Consumer goods	Former head of BoP strategy, South Africa
Mr L	Beverage A	Consumer goods	Operations manager, field services
Mr T	Beverage B	Consumer goods	Strategy Development Manager
Mr D	Beverage B	Consumer goods	Strategy Development Manager
Mr F	Media A	Media	Director - Emerging Markets and Africa
Mr I	Tech A	Technology	Business development manager, Start-up group, Mideast/Africa
Mr C	Tech A	Technology	Head of developer and platform evangelism
Mr V	Tech A	Technology	Head of citizenship
Mr F	Retailer A	Retail	Head of emerging markets
Mr C	Retailer A	Retail	Owner/manager at flagship BoP store
Mr G	Retailer A	Retail	Owner/manager of flagship BoP store
Mr J	Retailer B	Retail	Retail director, mass-market retail

Appendix Two: Interview guide

<u>Section One: Fact-check</u>

1) How long has your company been operating in low-income markets?
2) Where do you operate?
3) How much revenue do you make in these markets (if willing to divulge)?
4) What percentage of group or country revenue does this account for?
5) Is the unit profitable? For how long?

<u>Section Two: 'Nature of innovation'</u>

6) Tell us the story of your experience in low-income markets
7) Tell us about the products/services you offer in low-income markets.
8) How do these differ from those offered in existing markets, if at all?

   Follow-up: questions on price, nature of product, number of features, quality

9) Tell us about how you developed products/services for low-income markets

   Follow-up: questions on whether product/service was designed or built from scratch. What was the R&D process? Were existing products/services simply adapted?

10) Did you change your business model to operate in these markets?
11) How do your cost structures and margins compare to those of your mainstream business? What are the key metrics? Do these differ from those used in other markets?
12) How is the product/service delivered to your customers?

    Follow up: What about distribution channels? How are they different from existing channels? What about customer service? Packaging? Unit size?

13) Do the low-income products/services cannibalise your existing products/services? Or is there a risk they may do so in the future?

    Follow-up: If so, why did the company decided to take that risk? If not, how do you keep the two markets separate?

Section Three: 'Trigger for market entry'

14) Why did your company decide to enter the low-income market space?

    Follow-up probes on whether new market opportunity, slower growth in existing markets, legislation etc were factors in the decision.

15) Which of these factors played the biggest role?

Section Four: 'Negative or positive innovation drivers?'

16) What are the main challenges about operating in these markets?
17) How did you overcome/respond to these challenges?

    Follow-up: How did you manage to sell products at a lower price point? How did you overcome the infrastructure challenge?

18) Describe a situation when your business unit came up with an innovative solution. What prompted the innovation? Can you think of other factors that have 'forced' you or prompted you to innovate?
19) Have technological developments played a role in the way you do business in low-income markets?
20) How far do customer needs determine the types of products and services you offer? How do these needs differ from those of customers in other markets?

Appendix three: List of constructs with literature references

Drivers for market entry

Constructs/Themes	Literature Review
Pursuit of new growth	Pitta *et al,* 2008; Prahalad, 2005; Hammond *et al,* 2007; Prahalad & Hart, 2002
Maturing markets	Tidd *et al,* 2005; Immelt *et al,* 2009; Prahalad & Mashelkar, 2010; McKinsey, 2010
Poverty alleviation	Prahalad & Hart, 2002; Karnani, 2007; Pitta *et al,* 2008; Vachani & Smith, 2008; Mendoza & Thelen, 2008; Simansis & Hart, 2008
Changes in regulation	Tidd *et al,* 2005
New political rules	Tidd *et al,* 2005

'Negative' innovation triggers

Constructs/Themes	Literature Review
Lack of infrastructure	Vachani and Smith, 2008; Prahalad, 2005; Hammond & Prahalad, 2004; Anderson & Billou, 2008; McKinsey, 2010
Limited customer buying power	Hammond & Prahalad, 2004; Prahalad 2005; Prahalad & Hart, 2002; Anderson & Billou; Anthony, Johnson, Sinfield, and Altman, 2008;
Illiteracy/lack of skills	Prahalad, 2005; Mendoza and Thelen, 2008; Vachani and Smith, 2008
Conflict	Hammond & Prahalad 2004; Anderson & Billou, 2007
Corruption	Hammond & Prahalad 2004; Anderson & Billou, 2007

Elements of disruptive innovation

Constructs/Themes	Literature Review
Affordability	Christensen (1997); Anthony *et al*, 2008; Schmidt & Dreuhl (2008); Pitta *et al*, 2008; Mendoza & Thelen, 2008; Anderson & Billou, 2007; Prahalad, 2010; Prahalad & Mashelkar, 2010
Different performance parameters	Christensen, 1997; Danneels, 2004; Simansis & Hart, 2009; Markides & Oyon, 2010; Sull *et al,* 2003; Sehgal *et al,* 2010; Jose, 2008
Simplicity	Christensen, 1997; Pitta *et al,* 2008; Prahalad, 2010; Mendoza & Thelen, 2008

Convenience	Christensen, 1997; Christensen *et al,* 2002; Hammond & Prahalad, 2004; Anderson & Billou, 2007; Vachani & Smith, 2008
New business models, cost structures	Christensen *et al,* 2000; Markides, 2006; Prahalad 2005; Kaplinksy *et al*, 2009; Pitta *et al,* 2008; Chesbrough *et al,* 2006; Prahalad & Hart, 2002; Hammond & Prahalad, 2004; Anderson & Markides, 2007; Prahalad 2010; Olsen & Boxenbaum, 2009; Prahalad & Mashelkar, 2010; Anthony *et al* 2008; Sull *et al,* 2003; Christensen *et al,* 2001
Product architecture overhaul	Christensen, 1997; Christensen *et al,* 1998; Pitta *et al,* 2008; Sehgal *et al,* 2010
Cannibalisation/Encroachment	Christensen, 1997; Christensen & Raynor, 2003; Ghemawat, 1991; Govindarajan & Kapelle, 2004; Utterback & Acee, 2005; Immelt *et al,* 2009; Kaplinksy *et al,* 2009; Prahalad, 2010; Schmidt & Druehl, 2008

Appendix Four: Letter of consent

We are conducting research into corporate strategy and innovation in low-income markets and are trying to find out more about how companies move into such markets. Our interview is expected to last 90 minutes and will help us understand how South African companies across different sectors navigate low-income markets. Your participation is voluntary and you can withdraw at any time without penalty. Of course, all data will be kept confidential. If you have concerns, please contact me or my supervisor. Our details are provided below.

Researcher: Rebecca Harrison

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072 720 0681

Supervisor: Tashmia Ismail

ismailt@gibs.co.za

011 771 4385

Signature of participant: ____

Date: ____________________________

Signature of researcher:____

Date:______________________________

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