Monthly expenditure category fluctuations and trade-off in South African Bottom of the Pyramid households

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Declaration

I hereby declare that

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is my own work and that all sources have been acknowledged. When referencing secondary sources, I have paid close attention to context and have referenced in accordance to using the Harvard APA Style Guide.

The data for this thesis was collected through the generous finance and permission of the UCT Unilever Institute of Strategic Marketing who conducts BoP research projects around South Africa. The data has not been used for any other academic work, and has not been published in any journal or conference proceedings. As the leader of the fieldwork in the Institutes 2014 project on BoP consumer behaviour (called *Connecting with Survivors*), I was responsible for the research design, implementation and results analysis. This thesis is the culmination of a three-year research process. The data for this study excludes project data collected for the Institutes broader project aims, but not directly applicable to this research.

The length of this thesis (excluding preliminaries, appendices and bibliography) is approximately 70 200 words (acknowledging the UCT limit of 80 000 words for doctoral thesis)

Signed by candidate

Signature Removed

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March 2017

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Abstract

This exploratory study investigated changes in the allocation of household expenditure between various product or service categories in a sample of South African low-income or 'bottom of the pyramid' (BoP) households. First, the mixed methods research quantified the monthly income and expenditure fluctuations in the sample of households over a period of four months. In addition, the study identified and quantified expenditure category trade-offs in the target households. Finally, a qualitative inquiry explained the reasons for the fluctuations and the trade-offs identified in the first two components. The study was based on the existing BoP proposition and specifically focused on BoP consumer decision-making theory.

Methodologically, the study was a monthly longitudinal panel over four months. The quantitative component employed a once-off baseline questionnaire to gather household data. The participating households then completed monthly self-complete financial diary questionnaires that recorded both income and expenditure. The qualitative component involved interviews with representatives from the participating households and provided details to explain the underlying causes for changes in monthly expenditure patterns. The study was conducted in four provinces with eighty BoP households participating in the research.

The study found significant variation in both household income and expenditure between months. The variation and consequent trade-offs between expenditure categories was caused by calendar-related phenomena (such as the festive season), income shocks, unforeseen expenses and spreading the household budget over multiple months. In addition, large fluctuations in income resulted in a constantly shifting allocation of expenditure to categories that required the most attention at a particular point in time. Informal savings (stokvels) and micro-enterprise expenses also contributed to fluctuations in income and expenditure.

This study provides unique insights that fill a vacuum in the current body of academic and industry knowledge for this segment of close to forty million BoP South Africans. No study of this nature has been published in either South African or international journals.

Table of Contents

List of figures

List of tables

List of appendices

List of abbreviations

BoP	Bottom of the Pyramid
BRICS	Brazil, Russia, India, China and South Africa
EME	Enumerator Areas
FMCG	Fast moving consumer goods
MNC	Multi-national company
MS	Microsoft
NIDS	National Income Dynamics Survey
SAL	Small Area Layer (DataFirst)
SMEs	Small to medium sized enterprises
SOCR	Share of category requirement
SOS	Share of spending
SOW	Share of wallet
StatsSA	Statistics South Africa
US$	United States Dollar (currency)
UUISM	UCT Unilever Institute of Strategic Marketing
ZAR	South African Rand (currency)

Definition of key terms

Bottom (or base) of the pyramid (BoP): The Bottom of the Pyramid (BoP) is a socio-economic concept that groups the vast segment of the world's poorest consumers, living primarily in the informal sector. The BoP is usually cited as being in excess of about 4 billion people worldwide, and most commonly consists of those who live on less than US$2.50/day (London, Anupindi & Sheth, 2010; Simanis, 2012; Tolotti, 2015). The use of US$2.50/day as a BoP demarcation is discussed in detail in Chapter Two.

Consumer behaviour: Consumer behaviour is the study of individuals, groups or organisations and the processes they use to select, secure, use and dispose of products, services, experiences or ideas to satisfy their needs and wants (Schiffman & Kanuk, 2014).

Emerging Market Economies: An emerging market economy (EME) is an economy with low to middle per capita income. Although the term 'emerging market' is loosely defined, both large and small countries fall into this category. Hence, both economic powerhouses like China and small countries like Malawi are grouped into EMEs. In 2016, the World Bank announced that it would no longer be using the term "developing economy" (Fernholz, 2016).

Microeconomics: Microeconomics is the branch of economics that studies the implications of individual human decisions and action, specifically about how those decisions affect the utilisation and distribution of scarce resources (De Villiers & Frank, 2011).

Mixed Methods Research: Mixed methods research is a methodology for conducting research that involves collecting, analysing, and integrating (or mixing) quantitative and qualitative research (and data) in a single study or a longitudinal program of inquiry (Creswell, 2014).

Multinational Corporation (MNC): A multinational corporation consists of a group of geographically dispersed and goal-disparate organisations that include its headquarters and the different national subsidiaries. Emerging market MNCs have been called EMNCs and have been separated due to the differences experienced in EMEs (Ghoshal & Bartlett, 1990).

National Income Dynamics Survey (NIDS): The National Income Dynamics Study (NIDS) is the first national household panel study in South Africa (28 000 households). It is part of an intensive multi-million-rand effort on the part of the government to track and understand the shifting face of poverty. The National Income Dynamics Study is currently being implemented by the Southern Africa Labour and Development Research Unit (SALDRU) based at the University of Cape Town's School of Economics (NIDS, 2017).

Share of Category Requirements (SOCR): Share of category requirements (SOCR) is the percentage of a customer's requirement for a particular product. The metric is useful not only in determining a customer's loyalty, but in uncovering hidden potential value in a current customer set. SOCR has long been used as a metric of brand loyalty in the context of consumer-packaged goods (Fader & Schmittlein, 1993).

Share of Spending (SOS): At a far more fundamental level, the analysis of share-of-spending (SOS) analyses how much of a consumer's total expenditure is allocated to specific product or service categories (Keiningham, Aksoy, Perkins-Munn & Vavra, 2005). SOS is sometimes termed Share of Purchase (SOP) (Clerfeuille & Poubanne, 2003). SOP itself is sometimes used interchangeably with SOCR (Lomax, et al., 1997). The definition used for this study is the share that a consumer spends on any given item or category.

Share of Wallet (SOW): Share-of-wallet is defined as the share of customers' total spend across categories that is captured by a single firm (Keiningham, Aksoy, Buoye & Cooil, 2011)

Small and medium-sized enterprises (SMEs): The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an

annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro (Petrakis & Kostis, 2012).

UCT Unilever Institute of Strategic Marketing (UUISM): The UCT Unilever Institute of Strategic Marketing was founded in 1999 as a research unit at the University of Cape Town. The UUISM releases reports on various topics related to marketing and South African consumer behaviour. The Institute has produced some well-known research on the BoP market, and its work has been cited in various South African textbooks (Kotler & Armstrong, 2015; Schiffman & Kanuk, 2014). The institute has also built a strong reputation in the South African marketing industry as rigorous (CNBC Africa, 2016; Mail & Guardian, 2016; UUISM, 2017).

Chapter One

Introduction

1.1 Introduction

This study investigates the allocation of household expenditure between various product or service categories in the South African low-income or 'bottom of the pyramid' (BoP) market. More specifically, the study first explores the existence of monthly trade-off between expenditure categories in a sample of BoP households. Second, the study investigates the rationale for such expenditure trade-offs when they occur.

In consumer behaviour, a product category is a class or division of products (or services) that have particular shared characteristics (Gnau, Richardson & Dippold, 1992; Pradhan, 2006; Karampatsa, Grigoroudis & Matsatsinis, 2017). For example, bread and rice would be classified in the grocery category, but a pair of socks would be classified in the clothing category. Since consumers generally spend their income on more than one item, trade-offs may occur between categories on a monthly basis. For example, in one month a household may spend more on clothing, but then during that same month sacrifice on entertainment. Two consecutive months, therefore, may display a significantly different expenditure pattern. Conventional consumer loyalty models tend to compare behaviours and attitudes towards products within the same category (Kotler & Armstrong, 2015). Within one category, for example, products of different brands are generally regarded as substitute for one other (Kumar & Leone, 1988; Walters, 1991; Ma, Fildes & Huang, 2016). This study observes the trade-off that occurs between categories when comparing different months of expenditure in the same household.

The target population for the study was BoP households. The BoP is the global consumer segment made up of people living on less than US$ 2.50 per day, although scholars have widely debated poverty benchmarking and the actual size of the BoP segment (Prahalad & Hart, 2004; Ravallion, Chen & Sangraula, 2009; Chen &

Ravallion, 2010; Deaton, 2010; London, Anupindi & Sheth, 2010; Simanis, 2012; Chen & Ravallion, 2013). Similarly, South African BoP benchmarks have varied between household income of less that R1000 per month, to household income of less than R6999 per month (Duvenage, Schonfeldt & Kruger, 2010; Chipp, Corder, Kapelianis, 2012; Jacobs & Smit, 2010; Simpson, 2017). For the purpose of this study, the South African BoP definition will align with Simpson (2017) who benchmarked the segment as households earning less than R6000 per month (UUISM, 2014; Simpson, 2017; Simpson & Lappeman, 2017).

Understanding BoP consumer behaviour is crucial in a country like South Africa where the BoP market forms the majority (approximately 70-75%) of the consumer population (Chipp et al., 2013; Simpson & Lappeman, 2017). The importance of the market is further emphasised when considering that the BoP has an aggregate recorded expenditure of approximately R300 billion or roughly a third of South Africa's spending power (Chipp et al., 2013; Simpson & Lappeman, 2017). Although the National Income and Expenditure Dynamics Survey (NIDS) and Statistics South Africa (StatsSA) research income and expenditure patterns, they do so at a minimum of a bi-annual basis (StatsSA, 2013; 2015; NIDS, 2016). To date there is no record of how South African BoP expenditure fluctuates on a monthly basis. Past South African surveys of income and expenditure are useful for understanding macroeconomic patterns and measuring poverty levels. For marketers, however, there lies a further need to understand the monthly consumer behaviour patterns of BoP households (Jacobs & Smit, 2010; Human, Ascott-Evans, Souter & Xabanisa, 2011; Chipp et al., 2013).

A deeper knowledge base in household behaviour on a monthly (and even weekly) basis could drive new ways for marketers to understand and meet the needs of their consumer base. In particular, BoP households are likely to have considerably different loyalty patterns to higher income segments due to resource constraints and various socio-economic drivers of behaviour (see Section 2.10). In emerging economies like South Africa, marketers are often far removed from the socio-economic reality of the consumers that they target (Simpson, 2017). Without grounding in the consumer behaviour of BoP households, marketers to this segment are at risk of imposing

inappropriate marketing models on BoP consumers (Nailer et al., 2015; Neethling, 2017; Charman & Petersen, 2017).

The general paucity of global BoP research has been well-documented (Anderson, Day, & McLaughlin, 2006; Kolk, Rivera-Santos, & Rufín, 2013). South African academics in particular have observed the need to expand the base of knowledge on South African BoP consumer behaviour (Duvenage et al., 2010; Jacobs & Smit, 2010; Human et al., 2011; Chipp et al., 2012). Addressing the lack of research in this area is an academic imperative since South Africa has a BoP population of around thirty-eight million people (see Section 2.10) and is the largest economy in Africa (World Bank, 2016). As a relatively new member of the BRICS countries, South Africa is also an important emerging market in the eyes of the interntional community.

The main contribution of this study lies in determining the role that expenditure variation has on understanding BoP consumer behaviour. While many models of consumer decision-making exist (Mpinganjira & Dos Santos, 2013; Prasad & Jha, 2014), there are relatively few studies that seek to identify specific traits of BoP consumer behaviour as were done by Barki and Parente (2006) in Brazil, Chikweche and Fletcher (2011) in Zimbabwe, as well as another study in Zimbabwe by Makanyeza (2015). None of these studies observed monthly trends, and all the researchers cited the need for more consumer behaviour analysis across different countries. In Kolk et al.'s (2013) analysis of BoP research literatre, the authors made specific mention of the need for more research in Sub-Saharan Africa as it has one of the world's largest BoP markets (Kaufmann, Kraay & Mastruzzi, 2008). In South Africa, despite the majority of South African consumers falling into the BoP category, most South African consumer behaviour research has been conducted in the middle and upper income segments (Simpson, 2017). To date, less than ten studies (see for example Jacobs and Smit, 2010) on South African BoP consumer behaviour have been published in peer-reviewed journals, resulting in a vacuum in the body of academic and industry knowledge.

The lack of meaningful marketing insight on BoP household monthly consumption patterns led to the main aim of this study which is to explore the existence of and rationale for monthly trade-off in expenditure between different categories. The

findings of this research will build on the current BoP consumer behaviour literature, and will have a direct benefit to marketing practitioners who want to understand consumer needs and behaviours.

This introductory chapter will provide a background to the study, which includes a brief description of the consumer decision-making and the BoP concepts. Following this, the chapter will then provide a description of the research problem and objectives. Thereafter, a brief summary of the research design and methodology is followed by the contribution of the study to both academic research and marketing practitioners. Finally, the scope and limitations of the study are discussed, and ethical issues considered. This chapter will end with the demarcation of the study followed by a chapter summary.

1.2 Background to the study

To appreciate the depth and scope of this study, a background to marketing theory of decision-making is required. The framework of decision-making as defined by Hawkins and Mothersbaugh (2013) provides a theoretical background for research on the phenomenon of monthly trade-off in category expenditure. In addition, some further background on the BoP concept theory underpins the need for a more sophisticated approach to understanding this consumer segment. This section will then lead to defining the problem statement and research objectives that follow.

1.2.1 Marketing theory of decision-making

Decision-making is a phenomenon that spans multiple fields of study that includes among them psychology, sociology and economics (Mpinganjira & Dos Santos, 2013; Schiffman & Kanuk, 2014). In this study, a marketing approach to consumer behaviour was used to understand the decision-making of BoP households. This sub-section briefly describes the theory of decision-making proposed by Hawkins and Mothersbaugh (2013), as well as a rationale for why a microeconomic approach was not suitable in spite of expenditure behaviour also being a subset of economics.

1.2.1.1 Consumer behaviour view of decision-making

Marketers tend to view consumer decision-making through a complex lens of internal and external drivers of behaviour. The external influences include elements of the socio-cultural environment as well as the marketing efforts of firms themselves. The internal drivers include psychological influences such as motivation and perception, as depicted in Schiffman and Kanuk's (1997; 2014) often-cited model of decision-making (see Section 3.3.2). Although Shiffman and Kanuk's approach to consumer behaviour has been well-cited with their book in its tenth edition (Shiffman & Kanuk, 2014), a situational component is missing or only implied by Schiffman and Kanuk (1997; 2014) and many other similar models (detailed in Section 3.3.2). The Hawkins and Mothersbaugh (2013) decision-making model is depicted in Figure 1.1.

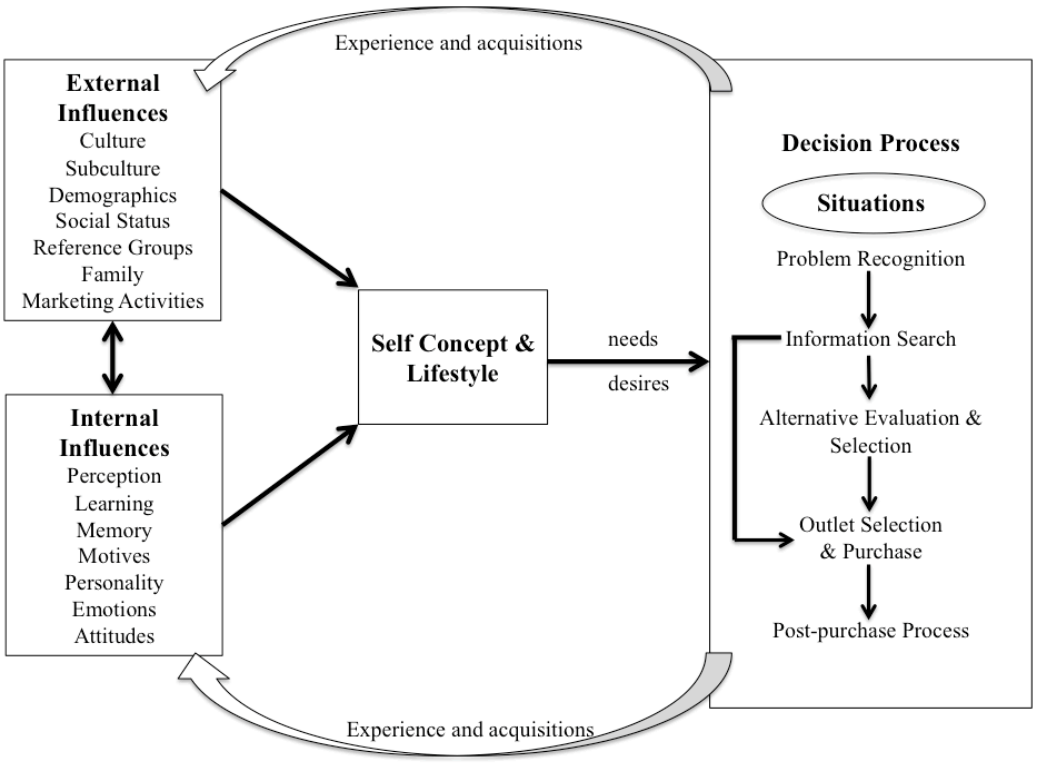

Figure 1.1: Hawkins and Mothersbaugh (2013) adaptation of the Hawkins, Best and Coney Decision Model (1989).

The model in Figure 1.1 provides a framework by which marketers understand why consumers make certain choices. The addition of a situational component has distinct value in the study of BoP consumer behaviour due to their vulnerability and resource

constraints (Jacobs & Smit, 2010; Duvenage et al., 2010; Charman, Petersen & Piper, 2012; Simpson & Lappeman, 2017). While there is no consensus on a universal model for consumer decision-making (Prasad & Jha, 2014), by building a deeper understanding of BoP decision-making, researchers and marketing practitioners alike will be better equipped to model brand loyalty and other functions of consumer behaviour.

1.2.1.2 The limitations of microeconomic choice theory for marketers

Economics and marketing have shared a close relationship dating back to over half a century (Alderson, 1957; Bagozzi, 1975; Hunt, 1976), and Kotler (1984) highlighted that exchange is the domain of both disciplines (Kotler, 1984; 1987; 2015). This sentiment has persisted and developed even further as the discipline of consumer economics has popularised in the twenty-first century (Zelenal & Reiboldt, 2009; Clark, 2016).

While the relationship between marketing and economics persists, modern microeconomic utility theory holds the pre-assumption that the individual is a rational buyer who has perfect information about the market. As a rational individual, one is assumed fully aware of one's needs and the best way to satisfy them. Over time, utility theory and satisficing have been texture to the narrative of microeconomic consumer choice (Floris, 2014). Subcategories of microeconomic choice theory include consumer demand theory, scarcity theory, tradeoff theory and the substitution effect (Varian, 2010).

Marketers tend to hold a cognitive psychological approach to the behaviour of consumers as opposed to the rigid axioms of economics described above (Schiffman & Kanuk, 2014). Since tastes and preferences are difficult to observe, economic theory assumes that they remain constant in the period of measurement (Silberberg, 1990; Asamoah & Chovancová, 2011). This study will add to the existing literature by providing empirical evidence of South African BoP household expenditure variation, and the impact that it has on decision-making. To date, no such research exists.

1.2.2 The Base of Pyramid concept

The fundamental proposition of the BoP concept was identified in the late 1990s by authors Prahalad, Lieberthal and Hart (Prahalad & Lieberthal, 1998; Prahalad & Hart, 1999). The proposition claims that through increased marketing attention on the largely ignored BoP consumer segment, company profits could be made while poverty reduced. Prahalad went on to be known as a leading authority in BoP literature for the next decade with his co-authored book, *Fortune at the Bottom of the Pyramid: Eradicating poverty through profits* (Prahalad & Hart, 2004) which has become a cornerstone of BoP literature. Along with difficulty in benchmarking the BoP, some scholars have also debated the proposition that increased marketing activity does in fact reduce poverty (Karnani, 2006; 2007). Nevertheless, researchers have continued to grow the body of knowledge on the subject over the last two decades

Measuring and comparing the different BoP markets is highly complicated owing to issues like differing poverty-line benchmarks, exchange rate fluctuations (when using a single currency benchmark) and significant socio-economic variability between countries (London et al., 2010; Simanis, 2012; Kaufmann, Kraay & Mastruzzi, 2008). As a segment, the BoP has a number of known defining qualities. First, the segment is large and is usually cited as being in excess of about four billion people worldwide (London, Anupindi & Sheth, 2010; Simanis, 2012). Second, the BoP is known to be "generally excluded from the current system of global capitalism" (London & Hart, 2010:8). As a consequence, the low-income consumer market has traditionally been considered the domain of governments, aid agencies, nonprofits and NGOs, and tends to depend on the informal economy (London & Hart, 2010; Charman & Peterson, 2017). Third, informal economies, whose transactions are not recorded in official gross national product statistics, sometimes "account for as much as 30-60% of the total economic activity in some developing countries" (London & Hart, 2004:354). This informal activity is known for inefficiency and does not abide by officially legislated business practices. BoP consumers have tended not to have the devoted attention of many global marketers, and are often subject to poor quality goods (London & Hart, 2004; London et al., 2010).

Prahaad and Hart (2004) emphasised that owing to some common misconceptions of the characteristics of the BoP consumer market, a significant business opportunity has been missed in the past. While there has been a shift in focus towards emerging markets over the past few years, there are still many gaps in the knowledge base by which to understand BoP consumer behaviour (Kolk, Rivera-Santos & Rufín, 2013; Makanyeza, 2015). This study will add new knowledge to BoP literature by providing empirical evidence of expenditure patterns that are unique to low-income South African households.

The lack of meaningful marketing insight on BoP household monthly consumption patterns led to a problem statement and research questions specifically targeting this study at better understanding the role of income and expenditure fluctuations on category trade-offs. Both the problem statement and research question are defined in the section below.

1.3 Research problem, research question and objectives

Lack of data on monthly expenditure patterns in BoP households means that marketers are unable to understand fully the likelihood of and reasons for monthly category expenditure trade-offs. Without establishing a sufficient understanding of possible short-term fluctuations in BoP expenditure, marketers may misunderstand the mechanics of BoP decision-making. Against the backdrop of the research problem and informed by the current state of the literature, the following research question was derived:

> *What are the monthly income and expenditure fluctuations and category trade-offs in South African BoP households, and what causes these trade-offs?*

The following research objectives are used to investigate, and answer, the research question:

(1) To determine how monthly income and expenditure fluctuates in South African BoP households.
(2) To establish what monthly category expenditure trade-offs take place in South African BoP households.

(3) To explore what situational variables influence category expenditure trade-offs in South African BoP households.

The research objectives guided the development of the methodology as briefly discussed in the next section. A thorough presentation of the methodological considerations and justifications is offered in Chapter Four.

1.4 Methodology

The methodology section outlines the overall research design and methodology of this study. The outline includes the sampling approach, the method of data capture and the method of data analysis.

1.4.1 Research design and research method

An exploratory research design was used in this study as there is little prior knowledge on which to build either descriptive or causal research (Tustin, Ligthelm, Martins & Wyk, 2005; Malhotra, 2010). Product category expenditure trade-off among BoP South African households is an element of loyalty with no peer-review published research. In addition, after a process of extensive secondary research (full EBSCOhost and Scopus databases), the author is unaware of any international literature on the direct subject of monthly product category trade-off among either South African BoP households, or those in other countries (search dates: September 2016, February 2017).

The lack of base knowledge on expenditure category trade-off among BoP consumers meant that an exploratory research design was appropriate as used in marketing studies with similar lack of theoretical framework (Alam, 2002; Harrison & Reilly, 2011; Cairns, De Andrrade & Landon, 2016; Rancati, Gordini & Capatina, 2016; Shree, Gupta & Sagar, 2017). Some existing BoP studies have employed exploratory designs for the comparable reason of a lack of sufficient theoretical framework for the phenomenon of interest (London & Hart, 2004; Barki & Parnete, 2006).

The research methods used in exploratory studies are highly flexible and generally qualitative (Tustin et al., 2005; Malhotra, 2010). A longitudinal mixed method approach was used to generate the finding of the study. A mixed method approach is a

methodology for conducting research that involves collecting, analysing, and integrating (or mixing) quantitative and qualitative data in a single study or a longitudinal program of inquiry (Creswell, 2014). Nailer, Stening and Zhang (2015) specifically identified qualitative research as a key tool for emerging market research. Nailer et al. (2015) stated that quantitative research alone is often not sufficient, and that ethnography often produces better results than statistics in BoP dominated markets (Nailer, Stening & Zhang, 2015). Consequently, mixed methods were best suited to this study as it sought not only to measure the phenomenon of interest (monthly category expenditure), but also to provide a qualitative explanation.

A longitudinal study involves gathering data from an identical participant at multiple points in time over a set period of waves (Dillon, Madden & Firtle, 1993). Longitudinal studies are able to measure changes in behaviour that are not possible with purely cross-sectional studies (Zikmund & Babin, 2010). For this study, both the quantitative and qualitative data was collected over a four monthly period, in a multi-province sample of BoP households. The mixed methods included a once-off baseline questionnaire and then two research instruments that included a panel of self-complete financial diary questionnaires and a panel of in-depth interviews.

The use of financial diary questionnaires is a well-cited methodology (Clow & James, 2014; Kent, 1993; Tustin et al., 2005; Zikmund & Babin, 2010), although the methodology is often associated with economic and development studies, and not management studies. The approach used in this research was used by Collins et al. (2009), who sought a simultaneous mixed method of financial diary and qualitative enquiry in their study into the financial instruments used by low-income households in Bangladesh, India and South Africa.

1.4.2 Target population and sampling

This study was set in South Africa, which forms part of the BRICS economies and is sometimes referred to as a gateway to the African continent (Cropley, 2013). South Africa has the African continent's strongest and most modern economy (Chakravorti et al., 2015; Osiakwan, 2017). Despite its prominence as an important economy in Africa, a 2016 report from the majority of the population is considered BoP. This study used the benchmark of households that earn less than R6000 per month (see

Section 2.8.1). Since approximately 70% of South Africa's 55.6 million people fit the abovementioned criteria (approximately 10.5 million BoP households), the target population includes most South African Households (Simpson, 2017).

The study sample was selected using a non-probability quota sample of eighty households as no BoP population framework exists by which to select a probability sample (Malhotra, 2010). The study was conducted in multi-site fieldwork over four provinces in South Africa. However, to increase the generalisability of the study, various quota were put in place during sampling selection. Therefore, quota sampling was used. Fieldworkers were provided with the following quota in order to select the households included in the study:

- **Household income**. Households that receive a collective monthly income of less than R6000 were included in the quota. While there was a chance that household income may exceed the R6000 quota threshold on certain months, the average over all waves needed to be below that mark.
- **Geographic area**. Including a geographic spread in the quota sample areas has the capacity to improve generalisability as observed in a number of South African multi-province studies (Lekhanya, 2014; Munyewende, Rispel & Chirwa, 2014; Littlewood & Holt, 2015; Siziba, Jerling, Hanekom & Wentzel-Viljoen, 2015; Vannoorenberghe & Voeten, 2016;). The spread between provinces as well as suburbs within the selected metropolitan areas benefitted the generalisability of the quota.
- **Availability during the whole longitudinal study.** In order to decrease mortality in the sample, the participants had to be able to commit to the time duration of the study and had to make themselves available during data collection periods.
- **Willingness to share sensitive information.** While there is always the potential for non-disclosure in a study on sensitive subjects like money (see Section 5.6.5), the participants agreed to share their monthly income and expenditure data. In addition, the participants were screened for willingness to participate in the interviews through which to discuss household decision-making.

The final sample of household participants was selected through a process of identifying suitable and accessible target provinces, metropolitan areas, suburbs and then the households themselves.

Although the sample is not big enough to be upgraded to the status of being nationally representative, the larger spread of sample areas did allow for triangulation and validation of the findings. A study by Collins et al. (2009), used samples of forty-two and forty-eight households in Bangladesh and India respectively for a study with a similar financial diary methodology. Collins et al. (2009) were successful in achieving their objectives of comparing BoP income and expenditure behaviour across countries, and have been widely cited. Although the sample households were selected by means of quota sampling, the choice of metropolitan areas and suburbs was done through a process of judgmental and convenience sampling (see Section 4.5.2).

1.4.3 Fieldwork

The outcome of the sampling process designated fieldwork sites in the areas of Johannesburg (Gauteng Province), Mthatha (Eastern Cape province), Potchefstroom (North West Province) and Port Shepstone (KwaZulu Natal Province) as shown on the map in Figure 1.2.

Figure 1.2: Data collection

The primary justification of these sites was first, that they have a high density of BoP households. The abundance of BoP households therefore represented the target population well. A detailed comparison of the sample households in relation to StatsSA (2011) census-generated area profiles ensured that the sample was within the predefined income range (see Section 5.3). Second, the use of multiple locations for data collection was deemed to give a stronger result than a single site. Aside from allowing for comparison, the multi-site approach mitigated the limitation that a single area may be subject to unforeseen influences that may skew the results. Third, the sample size of eighty households allowed a spread of sites to be observed. A sample of twenty households from four provinces was chosen. Table 1.1 provides a summary of the final selection of provinces, metropolitan area and suburbs.

Province	Metropolitan area	Suburbs
Gauteng Province	Johannesburg	Alexandra
Northwest Province	Potchefstroom	Ikageng, Mohading
KwaZulu Natal	Port Shepstone	Izingolweni
Eastern Cape	Mthatha	Mandela park, Gxulu, Ngangelizwe

Table 1.1: Geographic location of the sample households

The spread of locations in Table 1.1 provided the sites for data collection as discussed in the following sub-section.

1.4.4 Data collection and analysis

Data collection and analysis are the processes of collecting and evaluating the relevant data for a study. The processes use analytical and logical reasoning to examine each component of the data provided, and to provide the foundation for drawing conclusions (Malhotra, 2010). For this study, data collection took place from December 2013 to May 2014 with the use of trained fieldworkers. The longitudinal dataset comprised four distinct data collection points within this extended period. The

fieldwork was recorded in the home language of each household, and the completed questionnaire and audio recordings were then transcribed, captured and processed for quality control. Not all fieldwork waves met the quality control standards of the study (Section 4.5.5), and the final household roster is summarised in Table 1.2.

Metropolitan area	Suburbs	Languages	Number of Households
Johannesburg	Alexandra	isiZulu, isiSotho	20
Potchefstroom	Ikageng	isiTswana	13
	Mohading	isiTswana	7
Port Shepstone	Izingolweni	isiZulu	20
Mthatha	Mandela park	isiXhosa	4
	Gxulu	isiXhosa	5
	Ngangelizwe	isiXhosa	5
	Various other parts of Mthatha	isiXhosa	6

Table 1.2: Fieldwork location (metropolitan area, suburb, language, households)

Although four metropolitan areas were selected, a total of eight different suburbs were represented in the sample. In addition, multiple area appropriate languages were used in the data collection. Household attrition and non-response were mitigated as much as possible, but some households skipped months due to quality issues in the timing of collection. Of the proposed 310 possible household responses, 210 were completed to a satisfactory level. The schedule of completed financial diaries is found in Appendix 8. On an aggregate level, wave one was the best-achieved wave with wave two being the least successful as observed in Table 1.3, which summarises how much data was collected in each of the four data collections.

	Wave 1	Wave 2	Wave 3	Wave 4
Number of completed diaries	77	35	47	51

Table 1.3: Number of completed diaries per wave (all households)

The quantitative financial data was first captured and then converted to STATA™ (a program tool for statistical analysis) and cleaned. Pivot tables were created in Microsoft (MS) Excel™ and presented for analysis (Section 5.5 and Section 5.6). The qualitative interview data was first audio recorded, then the data was translated and transcribed into MSWord™ for interpretation. In accordance with Miles and Huberman's (1984) grounded theory based approach, a thematic content analysis of the qualitative data was performed.

The qualitative analysis was validated for inter-rater reliability in order to mitigate against possible researcher bias when interpreting the results (Gosling, Wienman & Marteau, 1997). Inter-rater (also sometimes referred to as inter-observer) reliability is a recognised method of ensuring scientific rigor, thereby reducing the extent of human factors on data analysis (Marques & McCall, 2005). Although this process is more often used in quantitative research, when used in qualitative research it can be a useful way of assessing the value of a certain piece of research and enhancing the analysis of the qualitative data (Gosling, Wienman & Marteau, 1997; Marques & McCall, 2005). The process of inter-rater reliability, which was used in the analysis of the qualitative data of this research, will be discussed further in Chapter Four.

1.4.5 Ethical considerations

The 'University of Cape Town Code for Research Involving Human Subjects' was applied as a guideline for conducting this research. Dr. Harold Kincaid (UCT) ethically approved the research in 2013 (see Appendix 12). No additions were made to the data since its collection, and the data has not been used in any published literature in accordance with UCT's guidelines for ethics in research. Fieldwork was conducted in a responsible and respectful manner in accordance with the ethical principles set out by both the university and the Commerce Faculty. Throughout the research, scholarly integrity and accountability was upheld to the best of the researcher's ability. With emphasis on informed consent, truthful and respectful exchanges between the research participants and the researcher have taken place. All transcripts and consent forms related to this research have been stored in an appropriate manner and are available upon request.

With respect to the methodology of using financial diaries, ethical issues are similar to those that are found in any other type of research. Issues include honesty, confidentiality, privacy, and coercion. Diaries are time-intensive and may be burdensome to participants. Researchers also believe that because financial diary studies often involve repeated interviews, it is important to remain cognisant of issues related to privacy (Taylor & Lynch, 2016). The next section discusses the contribution that this study makes to advancing both consumer behaviour in general, and specifically BoP consumer behaviour.

1.5 Contribution of the study

This study proposed to make a contribution to understanding South African BoP consumer behaviour in the academic field of marketing as well as for marketing practitioners both locally and internationally. A summary of this contribution is presented below, and the full set of conclusions is presented in Chapter Six.

A noticeable and significant gap exists in BoP literature when it comes to consumer behaviour. While the study of BoP related subjects has grown considerably over the last decade (Kolk et al., 2013), there are only a handful of studies that deal with consumer behaviour in African BoP markets. Furthermore, South African studies in this segment are even sparser. While the subject of low-income consumption is common in blogs, news articles and individual company reports, there is a great need to contribute to the academic narrative and knowledge base.

Chikweche et al. (2012) correctly stated that not only is the study of BoP consumer behaviour in its infancy, but the majority of studies conducted have been focused on Latin America and Asia, ignoring the reported 800 million BoP consumers in Africa. South African marketing literature is also significantly lacking in BoP consumer behaviour depth. A keyword and phrase specific search was conducted on EBSCOhost and Scopus, the two major online databases of business articles in business related disciplines (Kolk et al., 2013). The results of this search revealed only six published journal articles about the South African BoP concept. Of these journal articles, only four concerned consumer theory (these articles are discussed in the literature review). For a country with the largest economy in Africa (BBC, 2016),

the lack of BoP consumer literature alone is a problem that needs pressing attention from researchers.

1.5.1 Recognise the role of expenditure category trade-off in consumer loyalty

The underlying assumption in brand loyalty measures is that consumers trade between brands if non-loyal, and stick to brands if loyal (Perkins-Munn, Aksoy, Keiningham & Estrin, 2005; Keiningham, Cooil, Aksoy, Andreassen & Weiner, 2007; Kim & Lee, 2010). In BoP households, this basic loyalty model is tested as, in some months, entire categories of expenditure are traded interchangeably. This study takes a multi-wave analysis of share-of-expenditure, and brings a far deeper and textured understanding to basic attitudinal and behavioural loyalty understanding.

Scarcity of resources has a direct impact on consumer behaviour (Prahalad & Hart, 2004). The exact nature of that impact on BoP decision-making and consumer loyalty is still to be clearly defined. Authors have generally labeled BoP consumers as being brand conscious (Prahalad & Hart, 2004; Barki & Parente, 2006; Rahman, Hasan & Floyd, 2013) but the nature of that loyalty has not been adequately explored in South Africa. As most customer loyalty models have their roots firmly entrenched in developed countries, a call has been made for marketing practitioners and researchers to develop marketing approaches relevant to BoP consumers (Makanyeza, 2015). At present, there have been multiple warnings to be cautious when applying research findings across the income divide (Douglas & Nijssen, 2003; Pentz, Terblanche & Boshoff, 2013).

Prahalad and Hart (2004) alluded to many businesses that tried to enter the low-income market but failed owing to these businesses' selling BoP consumers merely a repackaged version of what they sell to consumers with higher disposable income. For this reason, Jacobs and Smit (2010:30) state that,

> *"Arguably, far more research is needed to fully understand both the needs of low-income consumers and the challenges these consumers face in accessing basic products or services."*

Wood, Pitta and Franzak (2008) argued only from a place of understanding can needs, perceptions and behaviours be linked to marketing strategies. Business models need

to be adapted for consumers that face phenomena like the poverty penalty and lack of brand choice (Wood et al., 2008). This investigation will further demonstrate that current decision-making models do not adequately represent the reality of South African BoP consumer behaviour. For example, a drop in firms' sales may not be directly related to consumer loyalty as much as it is related to situational variables. This insight will allow marketers to adapt better their strategy to the needs of their target market. A proposed new model of decision-making could directly influence how marketers engage with low-income households. The ability to understand and compensate is particularly relevant for companies looking to increase their share-of-wallet and customer lifetime value.

Averaged (aggregated) household data released by government and research agencies can be misleading. While helpful to macroeconomists, the huge variation in expenditure on a month-to-month basis renders this kind of average of limited use in understanding the life of BoP households. The socio-economic and marketing value of this study could have an amplified impact in both the governmental and private sector perspective on BoP household behaviour. For example, government agencies may use the insights from this study in order to understand more sufficiently the impact of government services to BoP households. Marketers may also have a better grasp on how expenditure patterns fluctuate and how dynamic BoP household conditions influence consumption behaviour.

1.5.2 More consumer focused insight into the BoP proposition

Part of Prahalad and Hart's (2004) BoP thesis was that sustainably poverty reduction can be driven by companies being able to sell successfully to BoP consumers (and thereby generating profits). This proposition cannot be fully tested without an adequate understanding of BoP consumer behaviour.

The potential for business growth in the continent of Africa is well attested. Mckinsey & Company (2016) stated that the spending potential in Africa was close to US$ 4 trillion and is projected to grow at 3.5% until the year 2025. While the size and growth of African BoP spending provides a potential opportunity for businesses to build market share and profit, there is still debate over whether increased multinational company (MNC) activity is beneficial to BoP consumers themselves

(Karnani, 2007). Increased competition could drive down prices and improve the value propositions experienced by Africa's BoP consumers. Direct investment in Africa also has the potential for job creation. Without understanding the lives and expenditure habits of the BoP, however, marketers risk having a myopic view of BoP consumers.

Consumer insights departments have become part of the strategic marketing landscape (Klepic, 2014; Brooks, 2016) as companies seek to profit in an ever increasingly competitive marketplace. The McKinsey & Company (2016) study above predicted that as per capita spending rises, consumer-serving companies need to understand where their customers are as well as understand the evolution of their incomes and expenditure patterns. This research on BoP consumer behaviour patterns can companies tailor products and services accordingly to meet the needs of South Africa's distinct consumer segments (McKinsey & Company, 2016). An improvement in the ability of both the public and private sector to meet the needs of their stakeholders will likely provide a positive sum gain for all.

In synergy with the previous point, sustainable marketing and the ethics of marketing to low-income consumers require a clear perspective of BoP consumer behaviour patterns (Alwitt & Donley 1996). Prahalad and Hart (2004) were noteworthy for their assertion that poverty could be alleviated through profits. Seeing low-income people as a source of corporate profit is fraught with difficulty, and yet is a topic that must continue to be addressed if emerging market foreign direct investment is to grow (Karnani, 2007). By understanding the impact of economic constraints on household expenditure, marketers (and economists and policy makers) will be more sympathetic to the lives of BoP consumers. To this end, better strategies across sectors may be influenced. Similarly, by understanding consumers' short-term trade-offs, development agencies can better target the social needs of low-income households. With the rise of sustainability as a key driver of strategic marketing, the needs of low-income households are particularly relevant (Perks, 2015).

1.6 Originality of the study

South African BoP data is sparse. Chipp et al. (2012:19) noted the following in the Journal of Management Dynamics:

> *"To date, four studies have explicitly examined the bottom of the pyramid in the South African context. Louw (2008) examined sustainable opportunities; Naidoo (2009) focused on corporate social investment as a driver of customer loyalty; Chipp and Corder (2009) reviewed the bottom of the pyramid for South African marketers; and Jacob and Smit (2010) reviewed materialism and low income consumption."*

Of the studies that the authors cited, only one was in a peer-reviewed journal. Since the statement by Louw et al. (2012), a few more peer-reviewed articles have appeared (see Section 3.5 and Section 3.6), but the gap in literature pertaining to the majority of South Africa is in need of serious attention.

To date, no panel study looking directly at the connection between BoP month-to-month category trade-off exists. In addition, studies that look at aggregated consumer expenditure tend to fall into the realm of economics. South African marketing literature is yet to publish a study of this sort, and hence this research is innovative and original. The researcher hopes that the study will springboard further empirical research into some of South African BoPs more complex topics.

Research into the South African consumer landscape is also very fragmented, with a strong bias towards middle and upper income segments (Simpson, 2017). A marketing perspective on income and expenditure dynamics in low-income South African households is yet to be published. In addition, published BoP studies are usually cross-sectional and do not account for monthly variation (Nailer, Stening & Zhang, 2015). This point is further validated by specific calls for a larger empirical base of research on the African continent (Egri & Ralston, 2008; Jacobs & Smit, 2010; Kolk & Van Tulder, 2010; Kolk & Lenfant, 2012). The next section will discuss the scope and limitations of the research before the demarcation of the study is provided.

1.7 Scope and limitations of the study

This section briefly states the scope and limitations of the study. As a research thesis, the boundaries of the study must be clearly defined so as to avoid scope creep. Furthermore, the limitations are a key topic to discuss since they will also form a pathway to further studies on this subject.

1.7.1 Scope

The scope of the study includes elements of both economic and marketing behaviour. To this end, readers in each tradition may have questions that appear unanswered by this research. For example, economists may be inclined to want to know more household demographic details (for example, head of household and household size) and marketers may be inclined towards questions about brand choice. All questions relevant to a better understanding of the subject of this research are welcome, however, the scope of the study has been defined to include very specific research questions (see Section 1.3). To this end, the scope of the research does not include brand choice and an expanded demographic profile. The results of this research are not fully scalable to represent the entire South African BoP population. The use of multiple research sites, however, provides strong evidence for generalisability and is useful for understanding BoP household dynamics.

1.7.2 Limitations

While the methodology was rigorous for a study of this nature, sample location and size could have been increased to incorporate more data. Time and resource limitations excluded this possibility. Similarly, potential fieldworker and participant biases are common with primary data collection (Malhotra, 2010; Belk et al., 2013; Aguirre & Hyman, 2016; Roulston & Martinez, 2016). Among the relevant limitations for this study are fieldworker and participant fatigue (especially by the last wave). The data was also collected on different days. This limitation was unavoidable as only one fieldworker was budgeted for each site. The fieldworker was unable to collect the relevant questionnaire from each household in a single day (including the in-depth interviews). The staggering of data collection was not ideal, but this limitation did not stop the deriving of significant results.

1.8 Demarcation of the study

This thesis is organised around six chapters. Chapter One presents the introduction of the study, and describes the whole research project (excluding the findings and conclusions). The chapter begins by providing a broad context for the study, followed by the research question and methodology. The chapter then describes the contribution that the study will make to both academia and marketing practitioners before closing with a brief summary of the scope and limitations of the study.

After the introductory chapter, the two theory chapters are presented. Chapter Two is a review of both global and South African literature on the BoP. The chapter discusses the various approaches to defining and measuring the BoP, as well as differentiating South Africa from other BoP markets. The chapter also discusses the characteristics of the BoP as a consumer group, and how South African BoP consumers compare to those in other countries. Finally, gaps in existing BoP literature are detailed.

Chapter Three is the second theory chapter, which provides a theoretical foundation by which to understand consumer decision making. The chapter looks at the history of decision-making models, and builds to an overview of consumer loyalty as a function of decision-making. Problems with importing an existing model directly into the analysis of the BoP is a thread that runs through the chapter. The theory chapters both lead to the research problem and research questions as detailed in Section 1.3.

Chapter Four is the methodology chapter. The chapter explains the design of the panel research as well as how the quantitative financial diary data and the qualitative interview data was collected and analysed. Each element of the questionnaire design, sampling technique and tools of analysis are described in detail.

Chapter Five is the findings chapter. This chapter describes the results of the research. The chapter systematically describes how each step of the research process yielded results that were then analysed according to the research objectives in Chapter One. The findings were divided into both quantitative findings and qualitative findings to align with the objectives. Each household was compared internally across the four waves for category trade-off. The households were also compared to one another and

to the averages for their region and the national sample. The insights from the interpretation were used to draw conclusions, and to provide marketing recommendations.

Chapter Six provides the final synthesis of the findings into conclusions based on the objectives that underpinned every step of the research process. The eight conclusions provide a contribution to the theories discussed in the preceding chapters, as well as insights for marketing practitioners. The interpretation of the data in the form of conclusions and recommendations closed this particular research process.

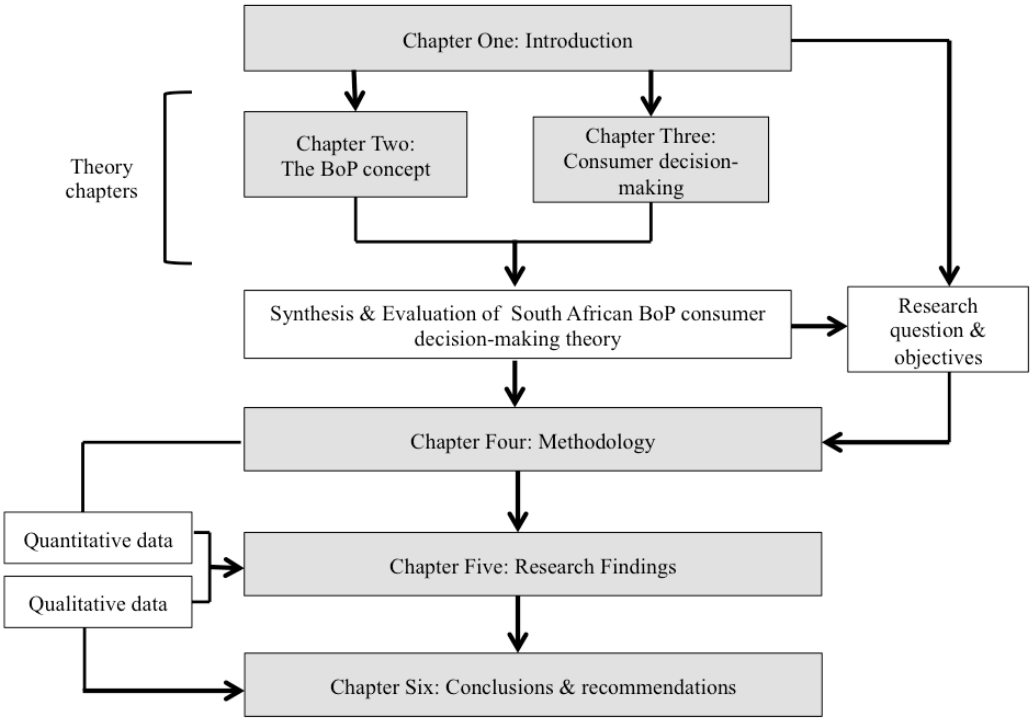

Figure 1.3: Demarcation of this study

1.9 Chapter summary

Chapter One has framed the whole study with the exception of an analysis of findings and conclusions. The chapter started by introducing the main conceptulisation of the study, and explained the key terms and principles. The next section provided the theoretical background to the study with a description of marketing theory of decision-making and the BoP concept. The theory chapters (namely Chapter Two and Chapter Three) expand on these concepts. After the background, the research question and research objectives were stated, which led to the methodology. In the methodology section, the research design was outlined. The research design included

an overview of the research instruments, the sampling methodology, the data collection methodology (fieldwork) and the data analysis methodology. After the methodology, an explanation of the contribution that the study will make to both academia and marketing practitioners was outlined. The scope and limitations were then designated, and the demarcation of the thesis was provided. The next chapter is the first of the two theory chapters and it details the literature on the BoP concept relevant to this research.

Chapter Two

The Bottom of the Pyramid Concept

2.1 Introduction

In the previous introductory chapter, the topic of this study and research objectives were stated. In addition, the theoretical underpinnings of the study were explained along with the methodology, scope and limitations. In this chapter, the BoP concept that theoretically underpins the study will be further defined, discussed and analysed. Key issues emphasised in the discussions of this chapter are the measurement of the BoP, marketing specific challenges in BoP markets and characteristics of BoP consumer behaviour. Once the foundation has been made, the chapter will introduce the South African BoP consumer by comparing similarities and contrasting differences with the BoP consumer as observed in non-South African contexts. Finally, the chapter will synthesise and evaluate the key points from literature, and highlight gaps that require further research. The literature map in Figure 2.1 illustrates the conceptual flow of this chapter.

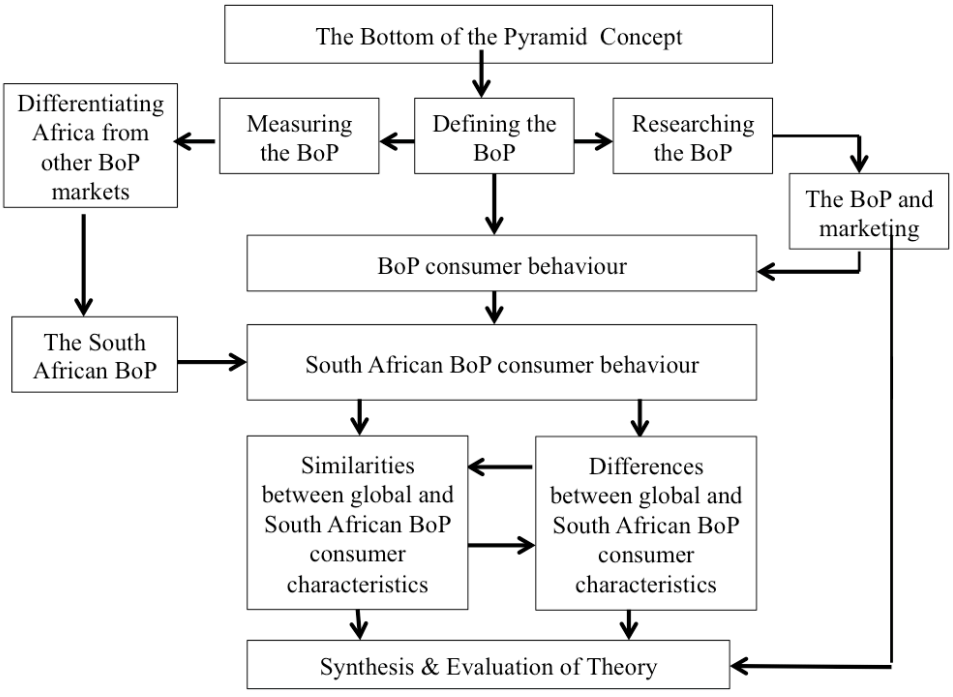

Figure 2.1 Literature map of BoP theory

This chapter frames the research target population and brings theoretical context to the study. The literature review will start with an analysis of the BoP concept as defined and discussed in academic literature.

2.2 The Bottom of the Pyramid concept

The BoP is a socio-economic grouping of the world's poorest consumers and is usually cited as being in excess of about four billion people worldwide (Prahalad & Hart, 2004; Simanis & Duke, 2014). The concept was originally introduced by authors Prahalad, Lieberthal and Hart in a series of articles written in the late 1990s (Prahalad & Lieberthal, 1998; Prahalad & Hart, 1999). The key proposition of the BoP concept was that multinational companies can both benefit the poor and be profitable simultaneously. The concept was popularised by the writings of Prahalad and Hart (2004) in their book, *Fortune at the Bottom of the Pyramid: Eradicating poverty through profits*. This book became the cornerstone of BoP literature in the years since publication.

2.2.1 Various approaches to understanding BoP theory

Researchers have questioned whether the BoP concept requires a separate category of theory (Ricart, Enright, Ghemawat, Hart & Khanna, 2004; Walsh, Kress & Beyerchen, 2005; Bruton, 2010; George, McGahan & Prabhu, 2012). Most of the best known BoP studies are descriptive and in need of further exploration, testing and theory-building (London & Hart, 2004; Waibel, 2012; Gupta, 2010; Hart & Christensen, 2002). Krämer (2015) discussed the building of BoP theory, and specifically cited Herrndorf (forthcoming, as cited in Krämer, 2015) who posed four views on building BoP theory as defined in Table 2.1:

Approach	*Concept of BoP*	*View on existing theory*	*Focus of theory testing and building*	*Examples*
BoP as business as usual	BoP markets do not differ in quality or nature from more established markets	Existing theory can explain phenomena in BoP markets	Existing theory can be used to explain BoP phenomena	Akula (2008)

BoP through the lens of	BoP markets are different from upscale markets and those in "developed" countries.	BoP markets can be understood through more established theory.	Insights from BoP markets can help determine the boundaries of established theory (and the conditions in which they apply).	Hart and Christensen (2002) Webb et al. (2010) Rivera-Santon and Rufin (2010)
BoP as a polar case	BoP markets are different from 'normal' markets but mainly in size rather than in quality ('less formal')	BoP markets can be partly understood by existing theory, but it has gaps that could be filled by theorising from BOP data.	BoP data can be used as "polar cases" to extend or improve existing theory, not for building specific BoP theory per se.	Hart and Sharma (2004) Seelos and Mair (2007)
BoP as a special phenomenon	BoP markets are fundamentally different from upscale markets and those in 'developed' countries.	Applying standard theory is misleading and prevents a proper understanding of BoP markets.	Building new models that target and explain the specifics of BoP markets.	London and Hart (2004) Prahalad and Hart (2004) Simanis (2012)

Table 2.1: Views on building BoP theory (Herrndorf, forthcoming – adapted by Krämer, 2015)

It is evident from Table 2.1 that there is no consensus that there is a BoP theory. Majumder (2012:18) unambigiously states that,

> "*Studying BoP from a critical perspective reveals the dark spots that have been overlooked, so is to question the conceptualisation of the theory*".

Whether looking at the BoP in terms of economics, SME's, MNC's, organisational development or consumer behaviour, each avenue of BoP literature has its theoretical underpinnings.

2.2.2 The evolution of the BoP concept

In recent years, the BoP has attracted much attention owing to sheer size (four to five billion people) and its estimated between US$ 1.3 and 3.9 trillion buying power depending on whether business markets are included (Pitta, Guesalaga & Marshall, 2008; Simanis & Duke, 2014; McKinsey & Company, 2016). South Africa has a significant BoP segment with up to 70% of the population falling into a low-income category (Hatch, Becker & van Zyl, 2011; Simpson, 2017).

The assumptions influencing the focus on the BoP are explicitly affirmed by Prahalad (2004:25) who state that, "Four billion poor (consumers) can be the engine of the next round of global trade and prosperity." Developing the BoP market is also seen as a way to create millions of new entrepreneurs at the grass root level, from local residents working as distributors to village-level micro-enterprises (Prahalad & Hart, 2004; Naidoo, 2009). The goal of the BoP concept was restated by Midha, Jain and Mathur (2012) who claimed that business models need to be designed that provide for both the needs of poor consumers as well as the profitability of companies.

A survey of past BoP literature reveals some heavy misconceptions placed upon these markets as they often receive one-dimensional labels such as 'the poor' or 'blue-collar' working class (Hammond, Kramer, Katz, Tran & Walker, 2008; Prahalad & Hart, 2004; Prahalad & Hammond, 2002). A study by Cui and Liu (2000) proposed several multi-dimensional aspects describing BoP markets. Their research has contributed to the push towards differentiation throughout regions and the existence of sub-segments within each market (Cui & Liu, 2000).

In 2008, Simanis et al. (2008) introduced what was termed BoP 2.0 when an adapted BoP protocol was proposed. The concept was taken beyond the initial BoP concept to include the BoP in co-creation and not just view them as a target market. The initial version of the BoP concept focused on selling whereas version 2.0 focused on co-venturing the business and building a deeper relationship with NGOs. In the second version of the BoP concept, the proposal was to develop a deep dialogue between firm and customer as opposed merely to listening to customers (Simanis et al., 2008; Agnihotri, 2012).

The next section will briefly examine the measurement of the BoP. The definition and measurement of the subject itself is under constant scrutiny, as are many global concepts such as inequality and financial aid to developing countries. The section will also introduce the BoP under the marketing umbrella and explore the growing body of literature on low-income consumer behaviour. Finally, the section will explore some of the recent (and limited) research in South Africa.

2.3 Defining and measuring the BoP

As a global concept, scholars have had a number of challenges in creating a consistent definition by which to measure the BoP segment. This section outlines some of the nuances to the debate about global BoP terminology, definitions and measurement.

2.3.1 The term BoP

The principle of a lowest level on a pyramid is not a new concept to social science, for example Maslow's hierarchy of needs (Maslow, 1943) and the evidence-based medicine pyramid (Brown et al., 1999). The difficulty, however, comes in how researchers define who makes up each segment. A survey of the current body of research shows that authors have not shown consistency even in whether to term the segment "bottom of the pyramid" or "base of the pyramid" – both terms have been cited extensively. Along with the two stated BoP terms, the words "poor consumer" and "low-income consumer" have also been cited. More recently, the term "resource constrained consumer" has also emerged. Table 2.2 outlines some of the terms used to refer to the BoP consumers by different authors.

Term used	Citations
Base of pyramid	(Hart & Christensen, 2002) (Simanis & Hart, 2006)
Bottom of pyramid	(Karnani, 2007) (Prahalad & Hart, 1999)
Low-income consumer	(Hamilton & Catterall, 2005) (Jacobs & Smit, 2010) (Ponchio & Aranha, 2008)
Poor consumer	(Alwitt & Donley, 1996) (Caselli & Ventura, 2000)
Resource constrained consumer	(Zeschky, Winterhalter, & Gassmann, 2014) (Barnett, Darnall, & Husted, 2015)

Table 2.2: Different terms used for low-income consumer research

Furthermore, there are examples of subdividing BoP consumers into smaller segments. These divisions have been based on themes such as income, living standard and role in the creation of value for firms (Rangan, Chu & Petkoski, 2011). For example, Rangan et al. (2011) postulate that three main tiers of consumer exist: low income, subsistence and extreme poverty. This typology of BoP segmentation needs to be further explored and is not within the scope of this study. Before describing specific characteristics of BoP consumer markets, the next section will outline the challenges in measuring the base of the economic pyramid.

2.3.2 Measuring the BoP

While the BoP concept centers on the largest and poorest socio-economic segment of the global population, the precise measurable definition poses a challenge. First, there are discrepancies in proposed estimates of the size of the BoP market, as authors have questioned the often-vague figures (Jenkins, 2005; Crabtree, 2006; Karnani, 2006). The inconsistencies in BoP size estimates are illustrated by Landrum (2007:3) who stated:

> *"**…**in various writings by Prahalad, the base of the pyramid is defined as 4 billion people with an annual per capita income of less than US$1500 (Prahalad & Hart, 2002), 4-5 billion people living on less than US$2 per day (Prahalad, 2005), 5 billion people (Prahalad, 2005), and approximately 1 billion people living on less than US$1 per day (Prahalad & Hart, 2002)".*

In a similarly critical review, Jenkins (2005:533) states that Prahalad,

> "*consistently overestimates the potential purchasing power of poor people, often by extending the definition of the poor to include those who are relatively well off by developing country standards*".

Landrum (2007:3) continues to observe that,

> "*the vague estimates of the size of the BoP market results in equally vague estimates of their purchasing parity power (PPP)*".

Landrum is critical in the observation of an almost twelve trillion difference between estimates by Prahalad (2004) and Karnani (2006).[1] Table 2.3 is a summary of BoP measurements made by various scholars. The table illustrates some of the complexity when attempting to measure the BoP.

[1] The discrepancy included an open letter from Prahalads to Karnani in defense of his figures.
[2] When given in daily or annual income, the corresponding amount was calculated and presented in bold.

Authors	Stated income definition at the time of publishing (US$)[2]	Converted to South African Rand (US$/ZAR) at the time of publishing[3]	Stated collective purchasing power	Stated Size (population)
Prahalad & Hart, 2002	< US$1,500/year (**<US$ 4,1/day**)	< R18 660/year <R51/day (US$/ZAR: 12.44)	US$ Multi-trillion	4 billion
Prahalad & Hammond, 2002	< US$2,000/year (**<US$ 5,5/day**)	< R24 880/year <R68,10/day (US$/ZAR:12.44)	N/A	4 billion
Prahalad, 2004	< US$2/day (**<US$ 730/year**)	<R4774/year <R13/day (US$/ZAR:6.54)	US$13 trillion	4-5 billion
Karnani, 2006	US$1.25/day (**US$ 456/year**)	<R2892,6/year <R7,90/day (US$/ZAR:6.34)	US$ 1.2 trillion (World Bank)	2.7 billion (World Bank)
Subrahmanyan & Gomez- Arias, 2008	< US$3,000/year (**<US$ 8,2/day**)	<R20 520/year <R56,20/day (US$/ZAR:6.84)	US$5 trillion (using WRI, 2007)	4 billion
Guesalaga & Marshall, 2008	< US$3000/year (**<US$ 8,2/day**)	<R20 520/year <R56,20/day (US$/ZAR:6.84)	US$ 5 trillion (using figure from the World Resource Institute, 2007)	4 billion
Williams et al, 2012	< US$1/day (**US$ 365/year**)	<R8,07/day <R2945,55/year (US$/ZAR:8.07)	US$ 2.5 trillion	4 billion
Mohr et al, 2012	< US$10,000/year (**US$27,4/day**)	<R80 700/year <R221,09/day (US$/ZAR:8.07)	US$ 8.2 trillion	3 billion
Prahalad, 2012	< US$2/day (**<US$ 730/year**)	<R5891,10/year <R16,14/day (US$/ZAR:8.07)	US$ 5 trillion (using figure from the World Resource Institute, 2007)	4 billion
Simanis & Duke 2014	< US$1500 /year (<US$4,1 /day)	<R15 750/year <R43,1/day (US$/ZAR:10.5)	N/A	More than 4 billion
Davies et al, 2015	Wealth < US$ 10,000	Wealth <R115 400 (US$/ZAR:11.54)	3% of global wealth	3.3 billion adults

Table 2.3: Comparing BoP sizes between different selected authors (authors own summary)

Inconsistencies in the definition of the BoP include demarcation estimates of size and buying power. Some authors have chosen to define the market based on wealth, while others use daily, monthly or annual income. For the purposes of this study, a BoP benchmark for the sample quota was set at R6000 (US$ 461.53) monthly household income. 10.5 million South African households (approximately 70%) earn less than R6000 monthly income (Simpson & Lappeman, 2017). The details of South Africa's BoP benchmarking will be explained in Section 2.10. The figure of R6000 is significantly higher than the World Bank (2016) per capita poverty line set at

[2] When given in daily or annual income, the corresponding amount was calculated and presented in bold.

[3] This calculation is based on the R/US$ exchange rate on the 1st of January of the year of the citation (As reported by investing.com)

approximately R741 per month (US$ 1.9 per day). The next sub-section outlines some discussion around the use and difference between poverty lines and the BoP

2.3.3 Poverty lines

Poverty lines are designed to represent a very low threshold standard of living that is believed to correspond to the minimum costs of basic needs. Changes in this value over time are a reflection of the increasing cost of meeting these basic needs. A key driver behind the raising of the international poverty line is the periodic adjustment to the purchasing power parity[4] (PPP) index (World Bank, 2016).

Some confusion also exists surrounding the definition of the BoP when compared to the 'poverty line' debate (Landrum, 2007). Based on the updated poverty line of US$1.90 a day, the World Bank (2016) estimate for 2015 put the number of extremely poor people at about 700 million, or 9.6% of global population (see Figure 2.2).

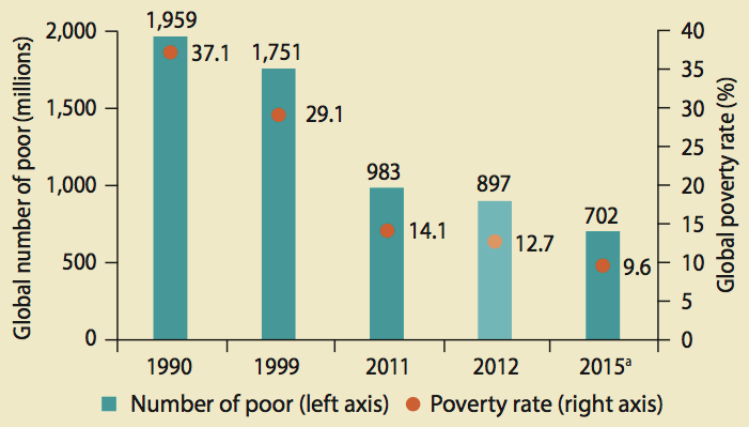

Figure 2.2: Global poverty rate based on US$1.90 poverty line and 2011 PPP (a. Forecast) (World Bank, 2016)

Credit Suisse's Global Wealth Report (2015), represented the world's population as depicted in Figure 2.3.

[4] To understand the use of a figure in US$ to compare global living standards, it is important to understand purchasing power parity (PPP). In essence, PPP suggests that prices of goods in countries tend to equate under floating exchange rates and therefore people would be able to purchase the same quantity of goods in any country for a given sum of money. Hence if a poor person in a poor country living on a dollar a day moved to the U.S. with no changes to their income, they would still be living on a dollar a day. Cross-country comparisons of poverty rates require PPP indexes, produced by the International Comparison Program (World Bank 2016).

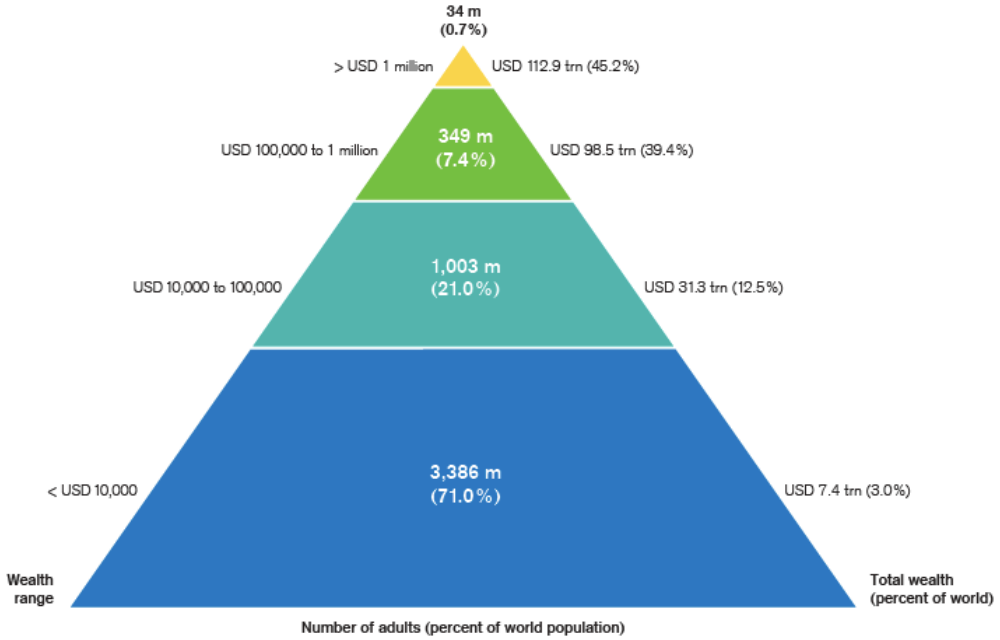

Figure 2.3: The Global Wealth Pyramid, (Davies, Lluberas, & Shorrocks, 2015)

In this depiction, Davies et al. (2015) categorise the BoP as those whose wealth amounts to less than US$10 000. Using the measure of gross wealth is in contrast to the daily income / expenditure benchmarking of the World Bank, but nonetheless exhibits a similar BoP size of approximately four billion people (Prahalad, 2012; Simanis & Duke, 2014). The benchmark is different from the 700 million people (9.6% of global population) used by the World Bank (2016), highlighting again the variety in definitions and measurements of the BoP.

Despite the various definitions for the BoP, there are some core facts on which almost all scholarly outputs agree. First, the BoP is large in population size and global distribution. Second, the market has been largely untapped by modern marketers until the last two decades. Undoubtedly the World Bank and other relevant bodies will continue to gather data on the BoP, and the definition will continue to evolve. Since this study is set in Africa, the next sections will discuss Africa as a unique BoP sub-segment.

2.4 Differentiating sub-Saharan Africa from other BoP markets

The world's major BoP markets are located in Sub-Saharan Africa (70.5%), Asia (41.7%), Eastern Europe (36%) and Latin America (28.2%) (Kaufmann, Kraay &

Mastruzzi, 2008). Different regions have their own unique BoP characteristics. For example, Africa was labeled as having a majority BoP sector with the base of the pyramid forming roughly the entire pyramid (Prahalad & Hammond, 2002). Furthermore Hammond et al. (2008) observed that the largest amount of purchasing power exists in the lowest income tiers (less than US$1000 annual income) in Africa and Asia, whereas the majority of purchasing power in South America, the Caribbean and Eastern Europe resides in the second income tier (between US$1000 and US$2000 annual income). Hammond et al. (2008) estimated the African BoP market to be worth US$429 billion which was (at the time) slightly smaller than that of Eastern Europe or Latin America. In a survey of 22 countries, 95% (486 million people) of the population was grouped into the BoP segment (Hammond et al., 2008). Updated figures by the World Bank (2016) place 93.3% of the African population into the lowest wealth tier (<US$10 000) making up almost 16% of the world's poor.

There are multiple reasons that continental BoP markets differ from each other. Africa and Asia, for example, are characterised by outspread, rural markets where others may have bigger urban and peri-urban markets. Developing countries in continental regions such as Africa, Asia and South America are also heavily subjugated by informal economies, which contain their own unique market characteristics and behaviours (Prahalad & Hart, 2004). In spite of the challenges that sub-Saharan Africa faces, the sub-continent has mirrored the drop in poverty seen globally as depicted in Figure 2.4 (World Bank, 2016).

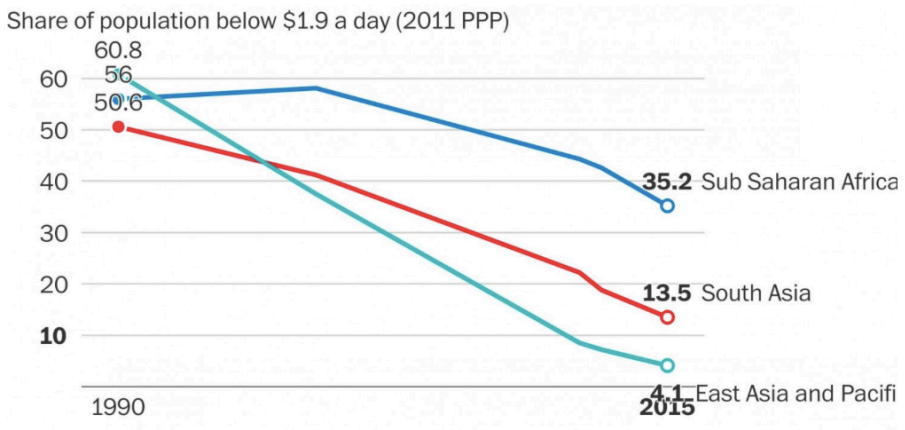

Figure 2.4: Percent of global population below US$ 1.9 per day (World Bank 2016)

With the BoP segment accounting for well over 50% of purchasing power in still developing countries, Asia holds a significantly higher amount of purchasing power relative to Africa, South America and the Caribbean. This difference is influenced by larger population demographics (Prahalad & Hammond, 2002). The explosive economic growth seen in China during the 21st century has also contributed to the relative decline on poverty levels in recent years when compared to Africa (Ravallion, Chen & Sangraula, 2009; Davies, Lluberas & Shorrocks, 2015). A review of the South African BoP is detailed in Section 2.10 of this chapter.

2.5 Researching the BoP

Since the late 1990s, the body of scholarship on the BoP has steadily grown. Kolk et al. (2013) found that from 1999-2009, there was an exponential increase in the amount of BoP related research as depicted in Figure 2.5.

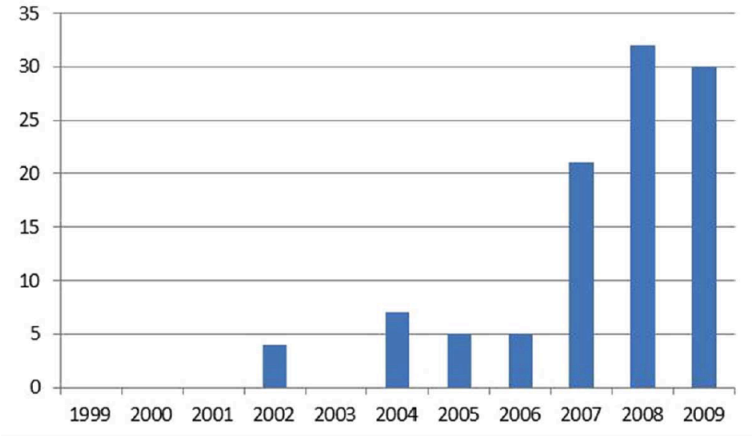

Figure 2.5: Number of published BoP articles 1999-2009 (Kolk et al., 2013)

Figure 2.5 shows that during the first decade of the 21st century, the number of BoP studies increased steadily. The growing attention of scholarship and multinational companies on emerging markets has continued this stream of research into the current decade (Veloso & Campomar, 2012; Azmat & Samaratunge, 2013; Kolk et al., 2013).

Kolk et al. (2013) conducted a comprehensive bibliometric analysis and proposed an organising framework in order to understand this evolving BoP concept. Their study measured the existing literature for a number of aspects including the focus of the article (for example, academic field, industry focus or firm focus). The study also

identified the type of BoP business model described in the target article (the position of the poor in the value network). The final target outcome of specific studies (economic, social and environmental) was also analysed. In addition, standard bibliometric data, like 'type of article' and 'target audience' were interrogated and a BoP framework was modeled in Figure 2.6.

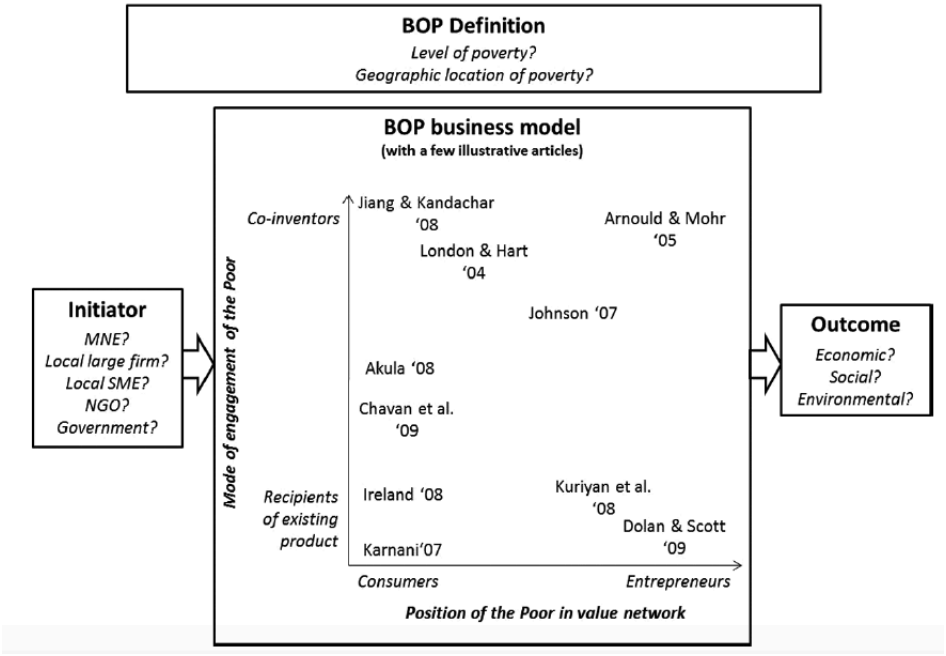

Figure 2.6: Organising framework for BoP literature (Kolk et al., 2013)

The attention paid to MNCs working in emerging economies has now filtered down to a focus on better understanding BoP consumers themselves. Marketing literature on the subject of BoP consumer behaviour is still relatively sparse but on the rise, as discussed in the next section.

2.6 BoP and marketing

The interest in researching BoP markets has branched into various streams including business strategy, marketing, sustainability, entrepreneurship and economics (Kolk et al., 2013). In this section, the BoP will be discussed as a subset of the marketing discipline. Marketing is a broad topic of study, and includes subjects such as product development, integrated marketing communication, pricing strategy, brand building, route-to-markets and many more (Kotler & Armstrong, 2015). The section discusses

the challenges with viewing the BoP as a target market as well as the gaps between many marketers and the BoP consumer.

2.6.1 Lag in BoP marketing literature

Researchers' desire to understand better the multi-level needs of BoP consumers has led to a growing interest in marketing articles as MNE's have intensified the battle for share-of-wallet (Kolk et al., 2013). This interest is evident in Figure 2.7.

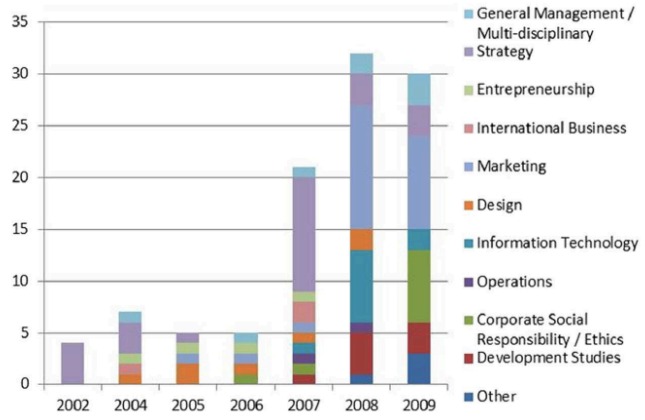

Figure 2.7: Primary disciplinary focus of BoP articles, 1999-2009 (Kolk et al., 2013)

Despite growth, Figure 2.7 shows that BoP marketing has lagged behind other disciplines in terms of scholarship. While Prahalad's (2004) influence on the perceived economic benefit of targeting low income consumers is well cited, the wake of the post-2008 world recession has placed the attention of multinational corporations (MNCs) on emerging markets as a source of financial growth (IMF, 2011; Ahmed & Zlate, 2013). The shift in attention paid to emerging markets began by a focus on corporate strategy, but has spread to multiple disciplines, contributing even further to the evolving BoP concept. The growth of MNC presence into emerging markets has already showed a shift towards more marketing related research as firms seek greater insight into their target markets. Scholars, for example, have called to inquire further into identifying, testing and enhancing BoP customer loyalty (Terblanche & Boshoff, 2006; Rai & Srivastava, 2012). This study in particular will add relevant insight to the body of knowledge on the BoP as a consumer group.

2.6.2 Understanding BoP consumer needs and behaviour

According to both older and newer definitions of marketing, consumer needs are at the heart of the marketing discipline. Since Theodore Levitt's seminal paper, Marketing Myopia (1960), the principle of consumer centric approaches to marketing was adopted as illustrated by the following two definitions or marketing:

> *"[Marketing is] that function of the organisation that can keep in constant touch with the organisation's consumers, read their needs, develop products that meet these needs, and build a program of communication to express the organisation's purposes".* (Kotler & Levy, 1969)

> *"Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large".* (AMA, 2016)

As a strategic approach to marketing in BoP consumer markets has been largely ignored, many opportunities exist for firms willing to engage in untapped BoP markets (Prahalad & Hart, 2004, Veloso & Campomar, 2012; Azmat & Samaratunge, 2013; Simanis et al., 2008; Agnihotri, 2012). Agyenim-Boateng, Benson-Armer and Russo (2015) claim that by 2025, nearly two-thirds of African households (estimated at 303 million) will have discretionary income. The expansion of the consumer market —an addition of almost 90 million consumers in just ten years—will help fuel the continent's GDP growth from 4.9 percent today to 6.2 percent in the next decade, far outpacing the global GDP growth rate of 3.7 percent. Major MNCs like Diagio, Coca-Cola, Procter & Gamble, Unilever and British American Tobacco and Cadbury have developed a foothold in various BoP markets. As more firms enter the BoP with its potential for growth, the competition for share of wallet will increase (Camarate, Hoijtink & Puttergill, 2016). As in marketing strategy across all markets, the BoP market will be contested on the basis of providing strong value propositions to selected target markets.

The paucity of marketing studies on a consumer group of approximately 4 billion people (Simanis & Duke, 2014; Prahalad, 2012) is illustrative of the lack of information available for marketers to assess both BoP consumer needs and behaviours. The heterogeneity between countries and regions also highlights the fact

that a study in one sample is not always generalisable across multiple countries (Cateora, Gilly & Graham, 2016).

2.6.3 The gap between marketers and BoP consumers

Even though understanding consumer needs is central to successful business, potential gaps in understanding between BoP consumers and MNC marketers abound (Hamilton & Catterall, 2005). The most fundamental gap is in income, with marketers earning far more than BoP consumers. Average annual salary for a marketing manager in America is US$62,128 and in South Africa is R343,500 (Payscale.com, 2016). Both of these figures are well above any BoP benchmark outlines in Section 2.3.2). The gap between the top and bottom of the pyramid is also growing (Rajan, 2012; Treanor, 2015) with the top tier of the wealth pyramid making most of the business decision for the rest (Davies, Lluberas & Shorrocks, 2015). Second, there is often a gap in personal and national culture. Marketers may not have experienced many of the personal consequences of living with a low-income socio-economic system. For example, many MNCs located in Europe and the USA operate in Asia, Africa and South America (where BoP proportions are far larger). The culture gap includes differences in language, metaphor, family roles and other culturally derived phenomena. Third, there is a business gap as business practices differ from region to region. Although having decades of experience, many developed economy MNCs have struggled to do business in the developing word (Simanis, 2012). Issues related to corruption, lack of formality and infrastructure, and lack of trust have made business difficult to scale at times. Finally, this consumer market has been traditionally considered the domain of governments, aid agencies, nonprofits and NGOs, and tends to depend on the informal economy. Indeed, the BoP has been cited as being generally excluded from the formal global capitalist system (Dawar & Chattopadhyay, 2002; Tolotti, 2015). For these reasons, there is often a gap in both understanding and experience when marketing professionals design consumer-related marketing campaigns (see Figure 2.8 for a gap summary).

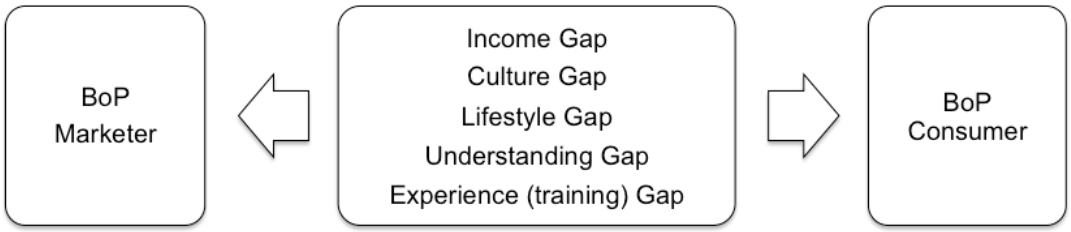

Figure 2.8: Author's summary of potential gaps between BoP marketers and BoP consumers

BoP decision-making is often very complex (Chikweche, Stanton & Fletcher, 2012), and consumers are highly value-conscious (Prahalad & Hart, 2004). Routine purchases in wealthy segments are shown significantly more attention and involvement in BoP markets (Chikweche & Fletcher, 2010). Social, cultural and festive engagements have great significance in most BoP markets, and these events influence monthly expenditure patterns (Banerjee & Duflo, 2007). Owing to income instability and inconsistency, often with daily wage payments, savings patterns are unpredictable, and informal savings groups replace formal banking. Marketers are not always ready to facilitate payment schemes to help BoP consumers (Subrahmanyan & Gomez-Arias, 2008; Chikweche & Fletcher, 2012). The adaptation of traditional offerings in what is termed 'creative consumption' is also commonplace. This consumption can be in the form of modifying products or on selling to a network (Berthon, Pitt, McCarthy & Kates, 2007; Beninger & Robson, 2014; Beninger & Robson, 2015). In addition, many BoP consumers are themselves micro-enterprise owners (Banerjee & Duflo, 2007; Charman & Petersen, 2017). Much of the BoP economy also falls outside of the formal market, which is where most marketers receive their training. Informal economies, whose transactions are not recorded in official gross national product statistics, account for as much as 30-60% of the total economic activity in some developing countries. This informal activity is known for inefficiency and does not abide officially to legislated business practices (London & Hart, 2004; London et al., 2010).

Owning to the common misconceptions of the characteristics, consumer behaviour and motivations of the BoP consumer markets, significant business opportunities have been missed in the past. BoP consumers are also often subject to poor quality goods (Prahalad & Hart, 2004). While there has been a shift in focus towards emerging markets over the past few years, there are still many gaps in the knowledge base by

which to understand BOP consumer behaviour (Kolk, Rivera-Santos & Rufín, 2013; Makanyeza, 2015).

Before marketers can provide compelling value propositions to BoP consumers, they need to know the characteristics of BoP consumer behaviour. If marketers do not have this insight and instead hold onto some still-common misconceptions of the BoP, opportunities can be lost (Barki & Parente, 2006). The next section will address this by reviewing the characteristics of BoP consumers through the lens of the last two decades of research.

2.7 Characteristics of BoP consumer behaviour

In this section, the focus is to explore the literature that defines BoP consumer characteristics. Specifically, the section will look at South African BoP consumer characteristics in comparison to the global BoP market. According to Barki and Parente (2006), the BoP consumer was recognised by marketers as a potential target market only in 1998. Accordingly, BoP consumer behaviour is currently still under-researched given its massive impact on the global economic landscape (Midha et al., 2012). As more research is conducted, more challenges are uncovered when understanding BoP consumption. Misconceptions about BoP consumers include the perception that they have no money, that they do not spend on non-essential goods and that they cannot use advanced technologies (Midha et al., 2012).

Despite many apparent differences, BoP consumers do express some global trends (Prahalad & Hammond, 2002; Prahalad & Hart, 2004; Hammond, Kramer, Katz, Tran & Walker, 2008; Veloso & Campomar, 2012). Eight major trends can be identified in literature, and will be discussed in the sections that follow.

2.7.1 Significant buying power

Buying power is defined as the capacity that a certain individual has to purchase a quantity of goods and services (Kotler & Armstrong, 2015). While individual consumers have relatively low incomes when compared to developed countries, there is significant buying power on the aggregate level (Prahalad & Hammond, 2002). Prahalad (2004) stated that the BoP "represents significant latent purchasing power that must be unlocked". While estimates vary, Pitta, Guesalaga and Marshall (2008)

specified that the BoP market buying power amounts to as much as US$ 1.3 trillion. While the per capita value of a BoP consumer might be fractional when compared to middle class and wealthy consumers, marketers cannot ignore the aggregate spending power of between four and five billion consumers. A number of authors have highlighted that the BoP has been erroneously ignored due to its size (Martinez & Carbonelli, 2007; Seelos & Mair, 2007; Chatbury, Beaty & Kriek, 2011).

2.7.2 A life under pressure

Vulnerability and lack of both infrastructure and economic support play a large role in the lives of BoP consumers. Economic constraints like unemployment, low and inconsistent income, high inflation and price shocks all play a role in spending patterns (Nwanko, 2000; Eifert, Gelb & Ramachandran, 2005; Johnson, Ostry & Subramanian, 2007). BoP consumers have often been observed to pay more for the same products than wealthier consumers (Mayer, Scammon & Andresen, 1993; Arnold & Quelch, 1998). Furthermore, conditions of political instability, poor governance, corruption, and weak legal systems play a role in the lives and spending of BoP consumers (Gyimah-Brempong & Traynor, 1999; Kaufmann, Kraay & Mastruzzi, 2008). A lack of consumer protection, for example, may result in duress from suppliers during product shortages (Viswanathan, Sridharan & Ritchie, 2008). Similarly, a lack of infrastructure (for example, reliable electricity and transport) is a recognised fact of life for consumers (Fay & Morrison, 2006). The fact that BoP consumers face significantly different pressures from more resource-endowed segments is a major challenge when comparing decision-making processes (as discussed in the next chapter). This thesis seeks to build better knowledge of situational decision-making as outlined in Chapter One.

2.7.3 High rates of functional illiteracy

Many consumers in the BoP and subsistence markets may have high levels of functional illiteracy (Viswanathan, Sridharan & Ritchie, 2008; Viswanathan, Rosa & Harris, 2005). The relevance of this phenomenon in marketing is the BoP consumers' potential use of pictographic thinking while processing brand-related information. This attribute further influences purchase decision-making on the basis of a single attribute (because of possible difficulties with complex abstractions).

Functionally illiterate consumers are known often to trade-off economic value and convenience for emotional goals as they develop various coping strategies to cope with the challenges of shopping (Mulky, 2014). Included in these behaviours are avoidance strategies like buying at the same location, buying in smaller shops, buying only known brands, and buying small amounts (Wood, Pitta & Franzak, 2008). Other strategies may include establishing relationships with store personnel and purchasing one item at a time to avoid overspending.

Since BoP education levels are usually lower than the developed world, marketers experience communication challenges. Marketers who want to communicate to BoP consumers need to deal with lower literacy rates, less access to conventional advertising media such as TV, and language diversity (Subrahmanyan & Gomez-Arias, 2008). While literacy challenges clearly exist, the emerging young BoP market is better educated than their elders and are more willing to search for product information to aid their buying decisions. This improvement in literacy has had a direct impact on brand consciousness (Hattingh, Russo, Sun-Basorun & Van Wamelen, 2012; McKinsey & Company, 2016).

2.7.4 Strong sense of community and partnership

The concept of social capital refers to the norms and networks that enable people to act collectively (Ferrari, 2016). Subrahmanyan and Gomez-Arias (2008) highlight, among other characteristics, the importance of honouring social relationships and community interaction within BoP populations. BoP consumers are often highly dependent on community partnerships, especially in times of crisis (Subrahmanyan & Gomez-Arias, 2008). The concept of partnership and social embeddedness links to financial interactions (relying heavily on group lending), social interactions (mutual help) and intellectual interactions (understanding one another) (London & Hart, 2004; Barki & Parente, 2006).

Furthermore, Wood et al. (2008:421) indicated that business entities need to "cultivate perceptions of partnership and cooperation, rather than competitive mercantile perceptions". The crux of their writing was that 'share of heart'is more fundamentally important than market share when it comes to BoP consumers. They contest that a

sense of partnership is the most powerful factor in BoP decision-making. These partnerships can be enhanced through cooperative engagement, partnership building, empowerment and trust (Wood, Pitta & Franzak, 2008).

Comini et al. (2012) have stated that the term 'inclusive business' appears frequently in connection with BoP business opportunities. This idea is "based on the premise of transforming the standards of living of the low-income population" while simultaneously generating profits. Similarly, Simanis, Hart and Duke (2008) discuss the need to adopt co-invention and co-creation strategies that create more personal business partnerships with BoP communities. The main thrust of these new strategies considers the BoP as partners engaged in a dialogue. In this state, businesses marry capabilities and build shared commitment with BoP communities as they invest in direct personal relationships (Simanis et al., 2008; Nidumolu, Prahalad & Rangaswami, 2009).

2.7.5 Connectivity and community engagement

The BoP consumer market has already shown a huge increase in mobile communications. Connectivity created by the growing use of mobile devices has enabled BoP consumers to exploit the benefits of information networks (Prahalad & Hart, 2004). In McKinsey's 2013 report on South Africa's digital penetration, 63% of urban consumers have internet-capable mobile devices and most users engage in regular social media networks (McKinsey & Company, 2013).

Growing connectivity further aids the spreading of brand value and brand consciousness. Zabir et al. (2008) conducted a study of the BoP market in Bangladesh and found that significant proportions of the BoP population made use of information and technology communications. Karippacheril et al. (2013) stated that mobile devices in the BoP market are mostly "ultra-low cost phones", capable of voice and text messaging, and basic pre-installed applications. While smartphone penetration is still relatively low in emerging markets, Karippacheril et al. (2013) have logically predicted a continued spread of smartphones.

South African companies are making increased use of social media in their marketing strategy. Ninety-five percent of major brands have some form of social media

strategy, and specialist social media agencies to assist in their public relations, marketing, and branding. The BoP consumer is taking advantages in the connectivity that these networks bring in spite of resource constraints (McKinsey & Company, 2013).

Prahalad and Hammond (2002:8) observed that when not in possession of their own technological devices (for example, internet connections, cell phones and televisions) many BoP markets engage with the "shared access model". In this model, ownership is disaggregated from access, thus enabling more BoP connectivity. Comini et al. (2012) further found that the usage of internet and technology by low-income communities is often conducted in small interactions through internet cafes, where one internet line can serve multiple people.

2.7.6 Dignity and self esteem

According to Barki and Parente (2006:15), an essential characteristic of BoP consumers is that they "demonstrate a high concern about maintaining their self-respect and being treated with dignity". This often costly exercise can be seen as defense mechanism resulting from their self-perception as 'second-class citizens' due to lower living standards and poor quality service delivery (for example, housing, public transport and public health). There is an "aggravated sense of embarrassment" for being poor (Barki & Parente, 2006:15).

In Gupta and Srivastav's (2015) paper on the aspirational consumption of BoP consumers, these authors reported that this segment often spends money in an attempt to put itself on par with the rest of society. An accumulation of material goods is perceived as a way to gain self-esteem. The authors also stated that BoP consumers acquire possessions in order to gain social status. Brand consciousness relates to the point of self-esteem through symbolic attempt to 'counter-balance' a perception of inferiority and build self-esteem (Barki & Parente, 2006; Ismail & Baloch, 2015). The BoP is thus considered an aspirational consumer segment, consisting of individuals who seek to expend products beyond their basic and psychological needs in an attempt to gain self-respect and dignity (Prahalad & Hammond, 2002; Gupta & Srivastav, 2015).

2.7.7 Brand consciousness

Brand consciousness is a consumer's awareness of popular brands and desire to buy particular brands rather than others (Kotler & Armstrong, 2015). Rajagopal (2009) made the case that, like all consumer markets, BoP markets are subject to brand relationships based on trust, image, personality and reputation. This empirical research shows that, while price is a key factor, it is not the only determinant of product choice (D'Andrea, Stengel & Goebel-Krstelj, 2004). Rahman, Hasan and Floyd (2013) noted that BoP consumers show a strong preference for branded goods as they provide backing, confidence and quality. Prahalad and Hart (2004) further contest that brand-consciousness is universal among BoP consumers. BoP consumers are, however, also highly conscious of value and expect reasonable quality at prices they can afford. Evidence for the brand orientation of BoP consumers is found in the success of premium brands in BoP markets. Examples of successful brands that have been well established among the BoP include Pantene and Ariel (Procter & Gamble), Simba (PepsiCo), Sunlight (Unilever), Colgate (Colgate-Palmolive) and Coca-Cola (Achrol & Kotler, 2015; Alfred & Owusu, 2016; Lorange & Rembiszewski, 2016; Sheth, Sinah & Shah, 2016). The fact that these global FMCG brands have a strong presence in both high-income and low-income countries is evidence that BoP consumers show strong levels of brand consciousness. The brand loyalty of BoP consumers will be discussed in more detail in Chapter Three.

2.7.8 Lack of trust in big firms

Wood et al. (2008:420) stated that the BoP market is,

> *"convinced that global multinational firms and their respective brands are correlated with their low economic status, cultural subjugation and unfair resource exploitation".*

The authors are not alone in evaluating that the level of trust in big brands is very low. Barki and Parente's (2006:18) research made mention of the perception that big brands are known as "exploiters". This finding conflicts with the above point on brand consciousness, and must be treated with some context. The argument put forward by Barki and Parente (2006) is that BoP consumers aspire towards personalised relationships – specifically highlighting their desire for personal service. Large 'faceless' corporations are therefore largely mistrusted. This is corroborated by

London and Hart (2004), who identified BoP consumers' needs to create strong communities and social networks that stem from living in an environment that flourishes off mutual help. BoP consumers often experience failings from MNCs who can struggle to deliver goods and services in more rural areas (Anderson & Billou, 2007). As a result, many BoP consumers have lost trust in multinational firms due to interrupted service delivery and reliability (Prahalad & Hart, 2004; Nidumolu, Prahalad & Rangaswami, 2009).

The next section elaborates on the South African BoP consumer. The section first focuses on existing South African BoP definitions before comparing global and South African BoP characteristics.

2.8 South African BoP consumers

As a subset of the global BoP, South African BoP consumers display a number of similarities to the general BoP characteristics described in literature and reviewed in the previous sections of this thesis. South African consumers, however, do have their own particularities based on South Africa's history and unique socio-economic climate. In this section, the South African BoP market will be defined and compared to the global BoP characteristics.

2.8.1 Defining the South African BoP

South Africa has one of Sub-Saharan Africa's strongest and most modern economies, yet a large portion of the population remains in the BoP. The global discrepancy over benchmarking the BoP (Section 2.3.2) is similarly experienced at a local South African level. Different scholars have defined the BoP in different ways, and there is little agreement between definitions. For example, according to Chipp et al. (2012), 35.8% of South Africa's population (11.2. million adults) is considered to be BoP. Chipp et al. (2012) defined the BoP as earning R43.73 per day (US$ 6.5[5]) or R1312,00 (US$ 187.43) as shown in Figure 2.9.

[5] The US$ / ZAR exchange rate in June 2012 was 8.39 (Investing.com)

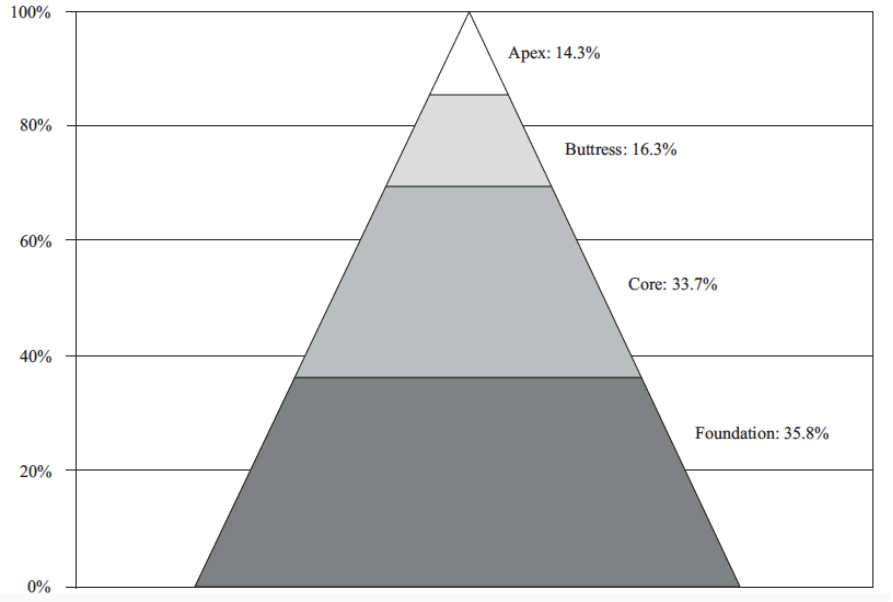

Figure 2.9: The South African Pyramid according to Chipp et al. (2012)

Hatch, Becker and van Zyl (2011) dissimilarly stated that around 34 million South Africans (approximately 70% of the population) form part of the BoP sector. The World Bank (2016) found the South African BoP to be 34.7% of the population. This figure amounts to almost twenty million consumers (using StatsSA's 2015 census recalculations). Furthermore, Mahajan (2014) stated that the South African poverty headcount in townships and informal settlements rose from 42.5% in 2006 to 42.7% in 2011. This figure was measured as income under US$ 2.50 per day in PPP (2005 prices). Simpson (2017) and the UCT Unilever Institute of Strategic Marketing (UUISM, 2014) place households with an income of less than R6000 (US$ 566.04[6]) per month into the lowest tier of the economic pyramid (Simpson & Lappeman, 2017). The figure constitutes just fewer than 70% of the South African population and is the benchmark used in this study.

2.8.2 South African BoP similarities to global BoP consumer

In this sub-section, literature on the South African BoP consumer was compared to the characteristics of the BoP consumer identified in Section 2.7. In doing so, the generalisability of certain global BoP consumer characteristics can be reflected on in a South African marketing context.

[6] As calculated on the US$/ZAR exchange rate in June 2014 (the date of the study).

2.8.2.1 Significant buying power

As in other BoP markets, South Africa's low-income segment has a significant buying power. Jacobs and Smit (2010) stated that,

> "*Under the apartheid regime, black low-income consumers would have been largely dismissed as a viable consumer market in South Africa. Today, however, many South African businesses accept that the buying power of low-income consumers in this country has been grossly underestimated*".

Hammond et al. (2008) put South Africa's BoP aggregate income at US$ 44 billion, which was behind some other African countries like Ethiopia (US$ 84 billion) and Nigeria (US$ 74 billion).[7] According to both Jacobs and Smit (2010) and Nyanga (2015), the South African BoP market is worth US$ 40.3 billion per annum. Table 2.3 shows different authors' estimations of the denomination and size of the South African BoP market. Difficulty in estimating the size of the BoP also emanates from difficulty in estimating the size of the informal economy. The informal economy is the circulation of money not tracked by formal means such as the South African Revenue Service (SARS). A micro-enterprise may be fully functional, but too small to be considered part of the tax base. Informal income (for example many domestic workers who are paid in cash) would also not be measured in many of the formal national data instruments. Estimates for the size of the informal economy have ranged from R120 billion to R680 billion[8] (UUISM, 2014).

Table 2.4 shows some of the BoP lines and population estimates made by various authors and research papers. As per the discussion above and the variety of estimates below, the exact definition and size of the South African BoP is indeterminate.

[7] Partially due to South Africa having a stronger middle and upper class segment

[8] Professor Haroon Bhorat from the Department of Economics at the University of Cape Town estimated the informal economy to be valued in the region of R280 billion (Simpson & Lappeman, 2017)

Author	Stated BoP line	Size of population
Duvenage et al.(2010)	< US$ 98,00 per month < R1 000,00 per month	19 million (using PIR, 1998)
Wentzel et al. (2013)	LSM 1-4[9]	10.5 million adults (over 15 years old)
Chipp et al.(2012)	<R43.73 / day (US$ 6.5) <R1312,00 / month (US$ 187.43 using SAARF, 2009)	11.2 million adults (35.8% of population)
Simpson and Lappeman (2017)	< R6000 per month HH income	69% of population (38 million people)
Davies, Lluberas and Shorrocks (2015)	<US$ 10 000 wealth	72.7% of population (40 million people)
Jacobs and Smit (2010)	R6999,00 per month (Using BMR, 2007)	75% of population (37 million people - Using IFC, 2007)

Table 2.4: Authors own comparison of South African BoP estimates

A 2010 report by the DI International Business Development (DIBD) organisation asserted that low income consumers in South Africa have often been ignored by businesses, but

> *"when the total buying power of low income consumer groups [is] calculated, the BoP in South Africa represent a US$ 40 billion market - or one third of the entire South African market".*

South Africa also spent R145 million on social grants in 2015 (Neethling, 2017). This social wage further boosted the BoP's aggregate spending power significantly (Pennington, 2014; Neethling, 2017). The injection of government funding in some ways creates a balance with the unemployment rate of 27.1% (StatsSA, 2016)[10].

Chipp et al. (2012) argued that the South African BoP consumers do have considerable control over their spending power, despite what their low personal incomes would imply. The authors also cite significant NGO aid. There is thus much evidence that the South African BoP market has a similarly significant buying power to other BoP markets. The size, stability and spending power of the South African BoP makes it an attractive target for many local and multinational marketers.

[9] The South African Advertising Research Foundation (SAARF) developed the LSM in the 1980s for market segmentation purposes. The LSM methodology categorises the population into ten categories (LSM 1-10) of living standards according to multiple-attributes like access to services and durables, as well as geographic indicators.

[10] The UUISM observed that the official unemployment rate works off formal data and does not account for employment in the informal sector (Charman & Petersen, 2017; Simpson & Lappeman, 2017)

2.8.2.2 A life under pressure

As in all BoP markets, low-income South Africans experience significant socio-economic pressure. Consumers are vulnerable to income shocks and higher inflation than the middle and upper class (Jacobs & Smit, 2010; Duvenage, Schonfeldt & Kruger, 2010; Charman, Petersen & Piper, 2012; Simpson & Lappeman, 2017). Lack of income and access to low-interest loans means that many South African BoP consumers end up paying more for goods, as illustrated by Jacobs and Smit (2010) who stated that,

> *"It should also be noted that a distinguishing feature of low-income consumerism is that these individuals tend to base their consumption decisions on affordability rather than price. By way of illustration, a low-income consumer would rather pay R1000 for an appliance which he / she can pay off in installments over 6 months than buy that same appliance for R500 cash, because the installment value is what they can afford."*

Another sign of the challenges faced by South African BoP consumers is the high number of service delivery protests as consumers struggle to fulfill basic needs in terms of reliable water and sanitation (UUISM, 2016). By observing the details of household income and expenditure, this study provides further insight into the pressures and coping mechanisms of South African BoP households. In a similar way, a better understanding of the needs of BoP consumers will help marketers to design strategies to better meet those needs.

2.8.2.3 High rates of functional illiteracy

South Africa has a significant education problem in the BoP segment, with only 21% obtaining a matric certificate (Paddock & Steyn, 2017). The World Economic Forum (WEF) Global Competitiveness Report 2015–2016 (WEF, 2016) ranked South Africa last in terms of its quality of mathematics and science education. According to the same report, half a million children (50% of all who enter the school system) dropped out of school between grade one and grade twelve (2002-2014). This phenomenon is regardless of the fact that the South African government spends a disproportionately high amount of money on education (Paddock & Steyn, 2017). While South Africa's education system is very poor in the BoP segment, it is not incomparable to other BoP

markets. With few exceptions, most of the world's BoP markets have similar education challenges to those faced in South Africa (Ganimain & Murnane, 2016; Mbiti, 2016).

Marketers have ample opportunity to partner with government and the non-profit sector in an effort to both reduce levels of illiteracy, and simultaneously to build their brands. Educational technology (EdTech) is another opportunity for marketers as BoP consumers aspire to better education, but have not previously had the means to seek help beyond the government (UUISM, 2016; Paddock & Steyn, 2017).

2.8.2.4 Strong sense of community

Another manner in which South African BoP consumers are similar to global BoP consumers is through shared community. The South African BoP consumer is generally very community-orientated and often practises collectivism (Morris, 1992; Chipp, Corder & Kapelianis, 2012). The South African collectivist ideal is known as the philosophy of 'ubuntu' (Le Roux, 2000). More recently popularised by Desmond Tutu, ubuntu means "a person is a person through other people" (Tutu, 2012). This African philosophy has been described as a determining factor in the shaping of the African social conduct (Makgoro, 1998). Similarly, Sawady and Teschner (2008) suggest that a collectivist mindset is core to South African BoP consumer decision-making. The authors proposed that South African BoP decision-making includes the possible impact on their personal sense of community belonging. The collective mindset is shaped by shared experiences, and emphasises the power of word-of-mouth marketing. Cant, Brink and Brinjball (2002) also argued that "peoples of African descent are linked by shared values … [that include] an emphasis on community rather than on the individual" (Jacobs & Smit, 2010). Likewise, Chikweche and Fletcher (2010) found that a significant majority (80%) of their research participants were part of a social network (family, friends, religious groups, community clubs etc.). Nyanga (2015) states further in a 2015 research report that social networks give individuals confidence to assert themselves as consumers, thus overcoming the vulnerabilities of poverty.

Predominantly BoP-orientated saving clubs (called 'stokvels' in South Africa) are a clear illustration of collective behaviour in South Africa (Simpson & Dore, 2007). There are estimated to be in excess of 8000 of these savings groups, used by 11.4 million people in South Africa. These collective savings groups are estimated to be worth as much as R44 billion (Skenjana, 2013). The stokvel concept is not unique to South African society, but it is an intrinsic part of the culture for many BoP consumers that participate in the system. Stokvels are not simply about finance; the collectives are community social programs that often have membership meetings, uniforms and unique traditions. Brands and retailers have begun to seek ways of accessing the stokvel system (NASASA, 2016). Developing a better understanding of the role that collective saving in consumer behaviour is crucial for marketers who may not have used this form of financial instrument themselves.

2.8.2.5 Connectivity

As seen in the global BoP markets, LaFraniere (2005) cited Africa as the fastest growing cellphone market (growing tenfold in five years). South Africa has seen a mass adoption of cellphones in the low-income market with mobile phone ownership exceeding 75% of South African BoP consumers (aged 15 and above) (Klonner & Nolen, 2010). Most phone owners use prepaid sim cards (Calandro, Gillwald, DeenSwarray, Stork & Esselaar, 2012).

Social media platforms are also growing in South Africa, with the BoP mobile phone owners using Mxit (48%) and Facebook (68.4%) among others. While high, BoP consumers are still relatively skeptical in how they use some mobile applications, and tend to rely more on traditional media such as newspaper, TV and radio for information (Calandro et al., 2012).

To connect further the BoP segment in South Africa, cities such as Cape Town have proposed large-scale broadband internet installations. Areas such as Khayelitsha and Mitchell's Plain have already benefitted from such plans (Martin, 2012). The South African Taxi association also has broadband coverage in taxi ranks (Alfreds, 2015). Access to the Internet and cellular coverage will continue to grow in South Africa as corporations will continue to see opportunities to connect with consumers. Project

Isiszwe, the extension of free wifi to the city of Tswane, has won international awards for being one of the world's most innovative free wifi programs (Project Isizwe, 2017). This program and others will continue to see South African BoP connectivity grow substantially in the future, surpassing many poorer nations in this regard.

2.8.2.6 Dignity and self-esteem

While there is very little academic research into the aspirations and motivations of the South African BoP consumer market, the dignity theme is present. Due to South Africa's oppressive apartheid regime, Besteman (2008:163) noted a significant proportion of black people (particularly in the BoP) struggling with feelings "that they were inferior." Sentiments included the fact that poor black citizens felt "unable to stand up to white people abusing and assaulting [their] dignity" (Besteman, 2008:163). As a result of this baseline feeling, Morris (1992:46) believed that many BoP consumers "have a high level of pride and will not want to appear stupid by asking what a particular brand name means or how it reads". Morris (1992:46) further credits some of the success of easy-to-pronounce brand names, like Surf, Cobra, Colgate and Coke to this phenomenon. The mentioned brands hold a premium in the South African BoP market and are considered aspirational. Such brands are contributory factors in the enhancement of self-image (UUISM, 2016; Neethling, 2017). This inherent desire to regain dignity and self-esteem influences South African BoP consumer behaviour in various ways. Kuzwayo (2000:23-24) cites an example that more upstanding members of the BoP community refuse to be seen drinking at shebeens as "there is a bad perception". Kuzwayo goes on to maintain that BoP consumers use "street bashes" as a social gathering where they can show off.

In response to social damage caused by apartheid, the South African Bill of Rights (1996:6) states that "everyone has inherent dignity and the right to have their dignity respected and protected". Including dignity into the South African constitution highlights its importance. There is, however, a need to provide stronger supporting evidence for South African BoP aspiration, and how this affects their consumer behaviour. This study addresses some of the above questions in Chapter Six, however, a full exposition of aspiration is not within the scope of this research.

2.8.2.7 Brand consciousness

Chip et al. (2012:26) found that "brand preferences for consumables in the BoP segment closely mirror those of the South African market as a whole". The authors further stated that financial constraints forced BoP consumers to be "very careful in comparing costs and benefits within brand consideration sets" as they source the best possible price-performance ratio (Chipp et al., 2012:26).

Nyanga's (2015:67) study of South African BoP consumers' brand loyalty found high levels of brand consciousness. Nyanga asserts that, "they claimed to buy a lot of brands and had exposure to various media for product information." This finding concurs with the assertion emanating from Prahalad (2012) that contemporary BoP consumers are flooded with increasing amounts of marketing messages (Human, Ascott-Evans, Souter & Xabanisa, 2011). This exposure aids brand consciousness via increased media access. Nyanga (2015) also found that affordability, convenience, quality and durability influence the development of brand loyalty in multiple categories. Jacobs and Smit (2010) cite Ger and Belk (1990) who claim that income inequality in South Africa actually intensifies the strength of materialistic values and desire to consume as relative comparisons increase brand consciousness. This finding aligns with Kasser and Sheldon (2000) who noted that conditions of poverty and materialism are not mutually exclusive phenomena.

2.8.2.8 Lack of trust

The UUISM reported that while many lower-income consumers show strong affinity for major firms and brands, a lack of trust does exist. In two of their last three major reports, the Institute highlighted the banking sector as an example where trust had not been sufficiently garnered by major firms. This areas still remains to be further explored, but there is little evidence that South Africa is different from other BoP markets in this regards (UUISM, 2012; 2014). A study by Human et al. (2011) also found trust to need nurturing and could not be assumed among BoP consumers.

Now that the similarities between South African and global BoP consumer characteristics have been discussed, the next section will observe some of the differences.

2.8.3 South African BoP differences from global BoP consumer

Africa holds particular interest in BoP consumer research. Along with Asia, more than half of the continent's purchasing power is held by the lowest income tiers (Hammond, Kramer, Katz, Tran & Walker, 2008). While this phenomenon holds true for most of Africa (due to its rural orientation), South Africa is different from other BoP markets in Africa and other continents for a number of reasons as detailed in the following sections.

2.8.3.1 Familiarity in a hybrid economy

A hybrid economy is composed of significant portions of both formal and informal economy (Charman & Petersen, 2017; Simpson & Lappeman, 2017). Many of South Africa's sub-Saharan neighbours are predominantly informal. South Africa, on the other hand, is a unique blend of first and third world economy (DIBD, 2010). One of the results of an economy of this nature is that the gap between the rich and poor is significant, and represents a two-tiered economy (Duvenage, Schonfeldt & Kruger, 2010). Evidence of the disproportionate income gap is highlighted by South Africa's high Gini coefficient, which makes South Africa one of the most unequal countries on earth (Simpson, 2017). The Gini coefficient is a statistical measure of the degree of dispersion intended to represent the income or wealth distribution of a nation's residents. The metric is used especially in analysing income inequality (Varian, 2010). South Africa's high level of inequality further exacerbates the polar opposite formal and informal economies that function in parallel within the country.

The fact that formal and informal markets are closely interwoven creates a number of significant qualities in South African BoP consumer behaviour. Anderson and Billou (2007) cited four requirements which are critical for business entities seeking innovation and success in BoP markets. The authors cited availability, affordability, acceptability and awareness as key success factors. In most formal markets, concepts like availability are far more controllable as developed supply chains exist. In a hybrid economy like South Africa, assumptions that products will reach the majority cannot be made. There are, however, multiple means for wide distribution through national and independent wholesalers who service the informal sector. Marketers

cannot, therefore, assume that the same level of formality exists for South African BoP consumers as it does for wealthier segments (Masojada, 2017).

2.8.3.2 Income stability

A significant portion of South African BoP consumers is dependent on social grants and other forms of financial aid from the government. Grants are provided for a number of reasons that include child support, disability and pension. The grants were instituted as a means to help alleviate the financial strain placed on BoP consumers in post-apartheid South Africa. The official mandate is to ensure the provision of comprehensive social security services against vulnerability and poverty within the constitutional legislative framework (SASSA, 2016). Table 2.5 provides a reference for the types of social grants in South African and their amounts.

Type of grant	Amount (R)
Child Support Grant	R350.00
Care Dependency Grant	R1500.00
Foster Child Grant	R890.00
Disability Grant	R1500.00
Grant in Aid	R350.00
War veterans grant	R1520.00
Older Person's Grant (Pension)	R1500.00

Table 2.5: South African social grant amounts per month (SASSA, 2016)

The South African finance minister, Pravin Gordhan, expressed in his 2016 budget speech that the overall expenditure on social grants would increase from R129 billion in 2016 to R165 billion in 2018/2019. Gordhan's predecessor, Nhlanhla Nene, expressed that the government expected to have 17.5 million people receiving government support by 2018 (Ndenze, 2016).

The social wage is a significant boost to the household income of BoP consumers. A comparison of South Africa's social wage when compared to other emerging economies shows a significant contrast as seen in the Table 2.6.

Country	Percent of population living on <US$ 2
South Africa	16.56%
Tanzania	46.60%
Bangladesh	43.65%
Nigeria	53.47%
Mozambique	68.74%

Table 2.6: Percent of population living on less than US$ 2 per day (World Bank, 2015)

The relatively large social wage creates income stability to millions of households in a way that many other BoP markets do not experience. While not unique to South Africa, the net income stability of social grants has a direct impact on consumer loyalty as consumers can plan their expenditure around a stable income. Both NIDS and StatsSA showed that South African extreme poverty is decreasing annually (NIDS, 2013; StatsSA, 2013; 2016).

2.8.3.3 High dependence on government services

As stated above, over 40% of the South African population is dependent on social grants from the government. This amount is approximately double the portion when compared to 1993 and the shift is illustrated in Figure 2.10a and Figure 2.10b.

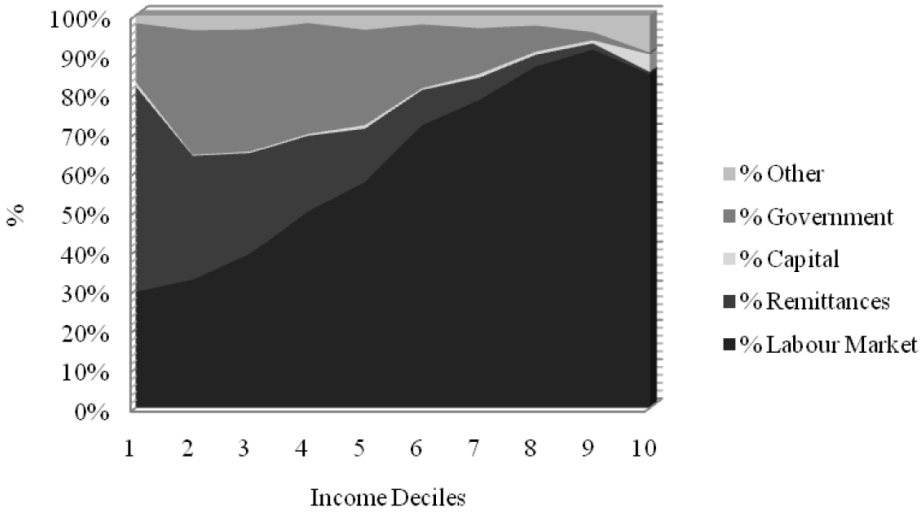

Figure 2.10a: Sources of household income in South Africa (1993) (Leibbrandt et al, 2010)

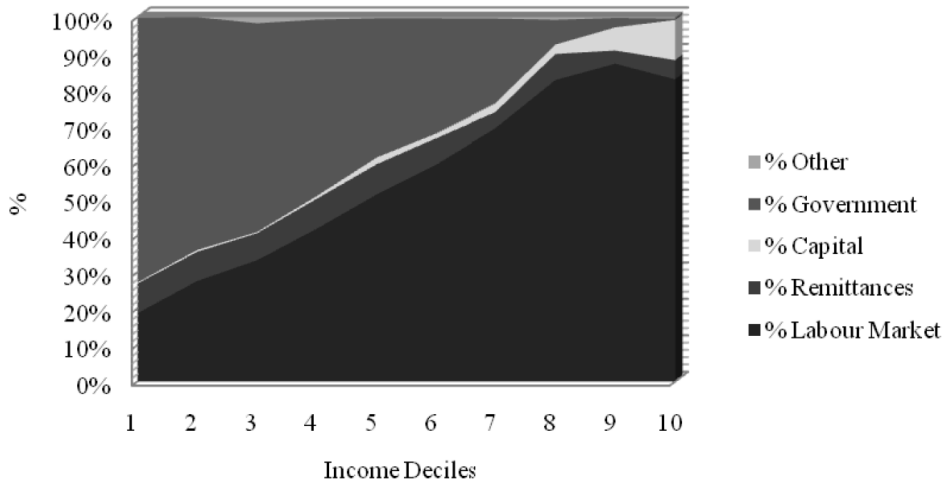

Figure 2.10b: Sources of household income in South Africa (2008) (Leibbrandt et al, 2010)

While the overall shifts in income sources (1993-2008) is a complex topic, the government has specifically compensated the BoP with the provision of social grants as shown in Figure 2.15a-b. In addition to social grants, the government has compensated for the mass neglect during apartheid by improving basic services like water, housing and electricity. South Africa's service delivery program provides a number of financial reprieves for BoP consumers who would otherwise need to pay for services themselves (as they do in many other countries). One of the consequences of the promises attached to service delivery by government is the discontent shown when delivery does not match expectation. In South Africa, multiple service delivery protests are reported weekly as can be observed by Figure 2.11 reported in the media using data from government data analyst Municipal IQ (TimesLive, 2016).

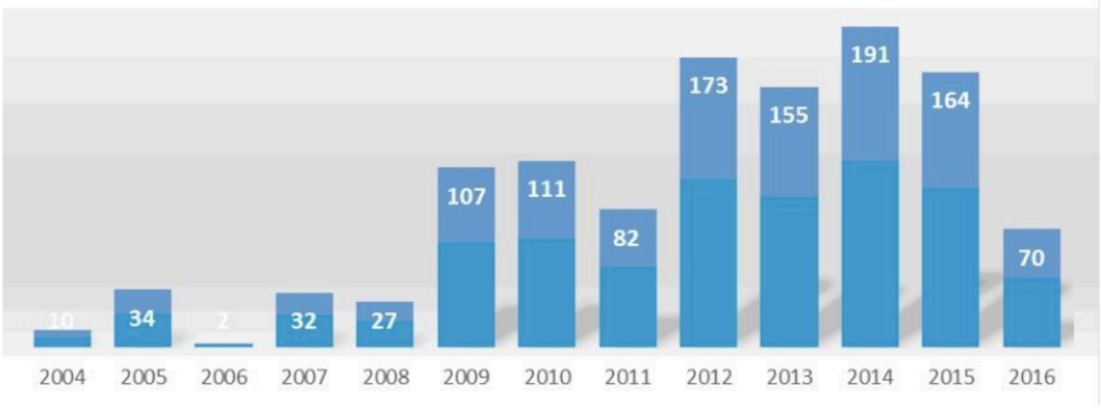

Figure 2.11: Major service delivery protests, by year (2004- 30 April 2016). Municipal IQ expected 2016 to end with the highest number in recorded history (TimesLive, 2016)

Figure 2.12 is a map showing the dramatic comparison with other African countries that apparently have far lower expectations of their governments.

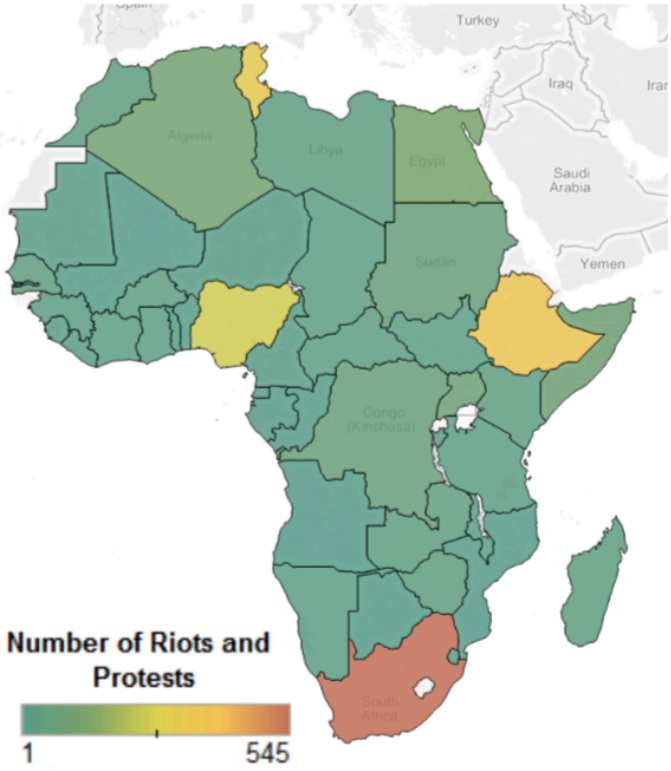

Figure 2.12: Number of Riots and Protests in Africa (up to May, 2016) (ACLED, 2016)

Reliance on government has a dual impact on consumers. On the one hand, the support from government frees up disposable income and improves livelihoods. Balancing these benefits is the co-dependence that occurs. Consumers may opt to protest, blame and be disgruntled instead of pursuing entrepreneurial endeavors (UUISM, 2016).

2.8.3.4 Unique township special planning

Mahajan (2014) reported approximately half of South Africa's urban population lives in townships and informal settlements. This figure accounts for 38% of working-age-citizens, and nearly 60% of the unemployed. When it comes to comparing South Africa's informality to the rest of the developing world, Mahajan (2014:297) further stated that:

"Townships, and especially the informal settlements [in South Africa], are similar to the slums in much of the developing world, although never was a slum formed with as much central planning and purpose as were some of the larger South African townships".

Unlike many of the world's slums, South African townships developed as a direct result of the apartheid regime's attempt to enforce the Group Areas Act of 1950. This act designated separate residential areas along racial lines, forcing black and coloured people to live in areas further away from the city center. The living standards in these areas were often dire (Coetzer, 2011).

From a consumer perspective, BoP households would often have transport into urban areas (for work) and therefore have access to urban malls and shopping facilities. These facilities were, however, historically not designed to cater for BoP consumers. While major shifts have occurred since the end of apartheid as formal retailers have spent considerable resources moving closer into township areas (Masojada, 2017; Neethling, 2017), most BoP consumers still live on the fringes of South African cities and towns. Access to better shopping facilities is, therefore, costly even though not impossible to access.

2.8.3.5 A mass migration out of the BoP

In another unique turn of events, the fall of apartheid and the ushering in of democracy saw a radical shift in the structure of the middle class. Thousands of BoP consumers were provided with opportunity to join the middle class (and upper class) as millions of families migrated out of poverty. Figure 2.13 shows the dramatic rise of the black middle class out of poverty.

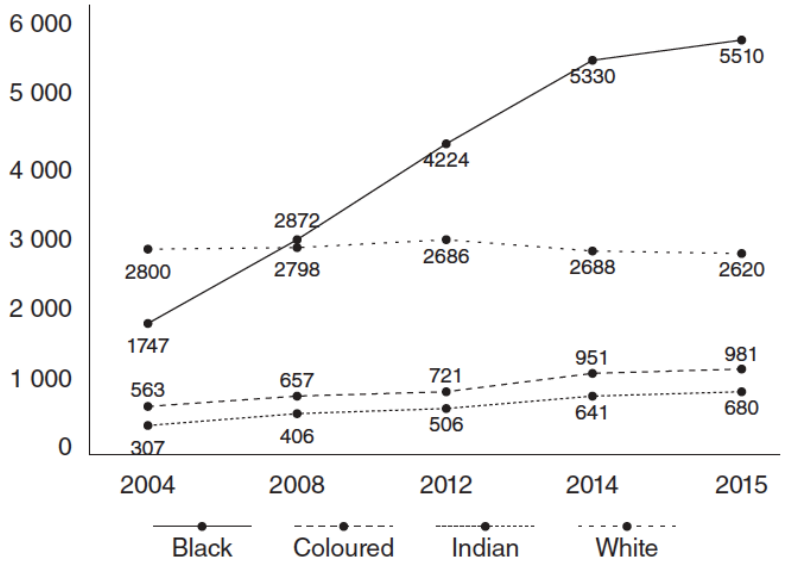

Figure 2.13: Black Middle class growth in South Africa (2004-2015) (Simpson, 2017)

Most of these middle class families still have strong social and family connections in the townships and are comfortable in both the middle class and BoP environments (Southall, 2016; Simpson, 2017). The result of the rapid shift in South Africa's socio-economics is that many BoP consumers have far closer proximity to middle class consumers and formal retail. This reality does not mean that informal retail is contracting. On the contrary, both the formal and informal economy is growing albeit in very different ways. The informal world and township economy is deeply interwoven with the market through social discourse. This relationship is not always well-understood by marketers.

Another notable consequence of the rapid growth of the middle class is that many BoP consumers have relatives (sometimes distant) that are no longer in the BoP. This phenomenon means that BoP consumers do not feel as far removed from their aspirational lives. Many BoP households are also supported by wealthier relatives (UUISM, 2012; 2016). The current stagnation in the South African economy means that the current growth of the middle class may come only from organic growth, and that most BoP households will not see the same opportunity in the decade to come (UUISM, 2016).

2.9 South African poverty and expenditure research

Trends in poverty and inequality during the post-apartheid period have been the subject of intensive analysis in South Africa (Finn, Leibbrandt & Oosthuizen, 2014). Research on poverty alleviation was viewed as a crucial factor in measuring progress in key policy decisions. While little data on household incomes and expenditures existed prior to the transition, regular nationally representative household surveys have been undertaken since the 1990s (both by StatsSA and other institutions like NIDS). Gaps in research still exist as the macro-figures are sometimes hard to translate into behavioural terms.

Below is an illustration of some key household surveys in the first two decades of South African democracy as mentioned by Finn et al. (2014):

- The 1993 Project for Statistics on Living Standards and Development (PSLSD) survey, conducted by the Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town.
- The 1995 Income and Expenditure Survey (IES), conducted by Statistics South Africa.
- The 2000 IES, conducted by Statistics South Africa.
- The 2005/06 IES, conducted by Statistics South Africa.
- Wave 1-4 (2008-2016) of the National Income Dynamics Survey (NIDS), conducted by SALDRU.
- The 2008/09 Living Conditions Survey (LCS), conducted by Statistics South Africa.
- The 2010/11 IES, conducted by Statistics South Africa.

The key official source of data on the incomes and expenditure patterns of South African households in the post-apartheid era is the IES. This survey has been conducted at five-yearly intervals since 1995 by StatsSA, and its primary purpose is to be used to compile the weights for the CPI (Finn, Leibbrandt, & Oosthuizen, 2014). As evidenced from the number and regularity of poverty and income/expenditure surveys conducted since 1993, South African economists show a keen interest in tracking South Africa's household development.

From an expenditure perspective, Table 2.7 summarises Finn et al.'s (2014) findings on category expenditure. Note that the methodology for each survey was different, and that adjustments were made by the authors to make the figures somewhat comparable (Finn, Leibbrandt & Oosthuizen, 2014). The data is the best available assuming that household expenditure has changed, but methodological accuracy has also improved.

Category	1993	2005	2010
Food & Beverage	42.8%	17.1%	17.9%
Clothing	5.5%	5.8%	5.7%
Housing	5.0%	7.0%	6.6%
Electricity	4.0%	4.0%	4.9%
Furniture & Equipment	5.5%	4.7%	3.0%
Household Operation	7.6%	3.4%	3.5%
Medical	2.4%	7.8%	12.3%
Transport	10.2%	24.5%	21.8%
Communication	2.6%	3.6%	3.3%
Entertainment	1.6%	4.5%	3.3%
Education	4.5%	4.1%	4.5%
Personal care	2.5%	1.5%	1.6%
Other	5.8%	12.0%	11.6%
Total	**100%**	**100%**	**100%**

Table 2.7: South African household category expenditure in three annual surveys. Author's own calculation from data summarised by Finn et al. (2014).

From Table 2.7, it is clear that older data (1993) shows significant variance from the latter sets of data (2005 and 2010). Similarly, the need for marketers to have more qualitative and segmented interpretations of the data is clear. For example, 12.3% of expenditure on medical and health related products and services is unlikely to represent accurately the BoP households who do not make use of medical aid and have free government healthcare options. A visual representation of household expenditure from StatsSA (2013) using data from their Income and Expenditure survey (2010/11) is presented in Figure 2.14.

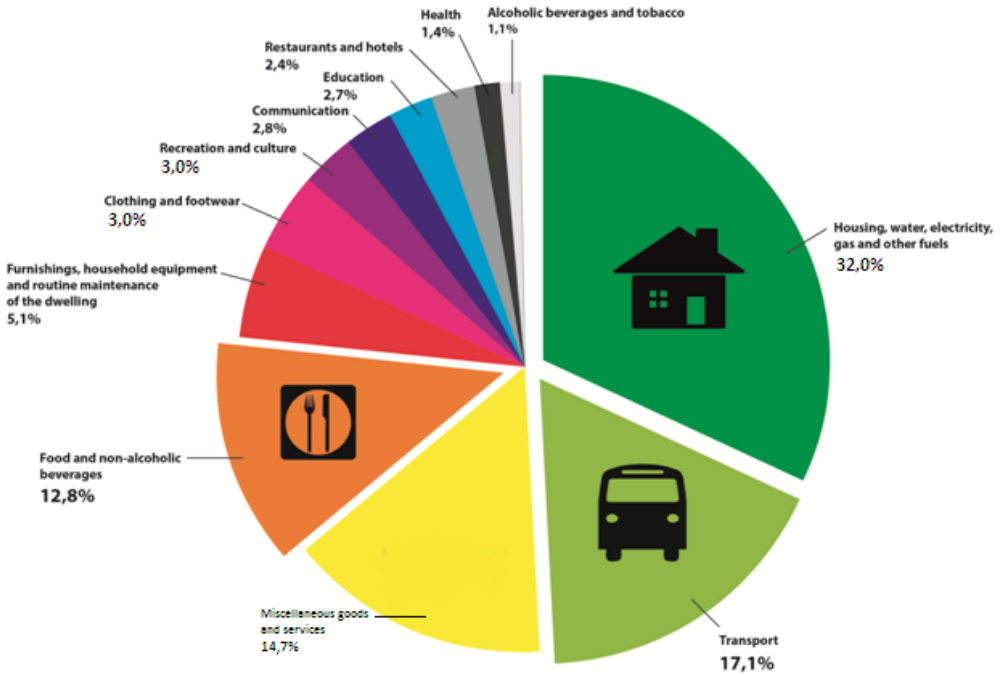

Figure 2.14: Percentage distribution of total annual household consumption expenditure by main expenditure groups (StatsSA, 2015)

Figure 2.14 shows a large spread of expenses, and provides an aggregate picture for all South African households. To what degree this graph is relevant to the South African BoP (the majority of the country) is not illustrated. Figure 2.15 shows a BoP graph from a DIBD (2010) study. The difference between Figure 2.14 and Figure 2.15 is significant. According to the figures, food and clothing expenditure is significantly higher in BoP households, while housing and transport is lower. This observation is consistent with government support to South African BoP households (see Section 2.11.3.3) as well as the fact that most BoP consumers do not have their own vehicle finance which would cost considerably more than public transport.

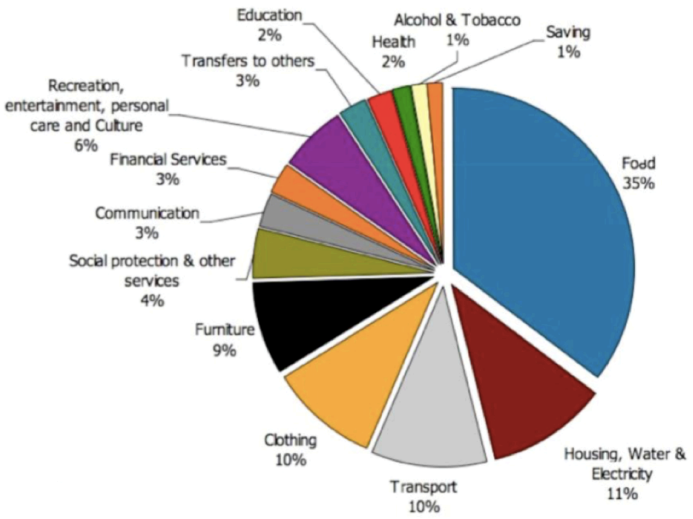

Figure 2.15: Average household expenditure (BoP households) sourced from IES 2005/6 (DIBD, 2010)

In all of the aforementioned studies, countrywide data was analysed and compared between years. The stated goal is often to see whether the country is indeed improving, and in many of the results, the BoP is highlighted as being among the groups that shows relative real income growth over time (NIDS, 2013). The figures, however, do not give marketers a window into the regular expenditure patterns of BoP households.

Duvenage, Schonfeldt and Kruger (2010) isolated specific food expenditure patterns in South Africa. They concluded that for the lowest income bracket[11], food expenditure amounted to 71% of total expenditure. This is significantly higher than the national averages in Figure 2.14.

2.10 Synthesis and evaluation of BoP literature

BoP literature is growing in size and scope as more articles are added to this body of knowledge every year. In this section, the BoP literature from both a global and South African perspective is evaluated and key issues pointing towards the need for more research are made.

[11] In this study Living Standards Measure (LSM) was used to denote the lowest income unit. The BoP would include LSM1, but would also include some more LSMs

2.10.1 Inconsistency in defining BoP

First, while most BoP authors agree that the size of the BoP means that there is likely untapped potential, the actual size of the market in question is still unclear. The variety of definitions and quantifications for the BoP poses some problem for marketers. The term is used to describe a market segment, but as Simanis et al. (2008) stated, the BoP is a demographic more than a market. To have a segment that constitutes up to four billion people is hardly a target market in strict marketing terms. While the debate is inconclusive, the core point on market size and potential must not be lost. The BoP has emerged as "one of the most powerful management buzzwords" of the last decade (Simanis, Hart & Duke, 2008:57).

From a South African perspective, using US$ benchmarks as outlined in Section 2.3 will generally be challenging due to fluctuating exchange rates. Table 2.8 illustrates American dollar amounts compared to the South African rand at a spot exchange rate in December 2016. The rate has varied significantly both above and below this point over the last two decades since the BoP has been popularised.

Poverty Line in US$	Converted to South African Rand (ZAR)	Monthly income in South African Rand (ZAR)
US$1.00	R13.64	R409.20
US$1.25	R17.05	R511.50
US$1.45	R19.78	R593.40
US$2.00	R27.28	R818.40
US$2.50	R34.10	R1023.00
US$10.00	R136.40	R4092.00

Table 2.8: Poverty line comparison between figures in US$ and ZAR (Dec 2016)[12]

South Africa, and other emerging economies, need to define and substantiate their own definitions of the BoP. In this study, for example, R6000 household income was the designated BoP benchmark in alignment with Simpson (2017) and the UUISM (2014). As research into the South African BoP develops, more alignment in definitions may be possible both internationally and in South Africa. In the meantime,

[12] Updated to exchange rate of R13.64/US$ 1 on 31 December 2016 (investing.com)

research like the one conducted as part of this study will need to substantiate their own quota benchmarks without relying on universal measurements.

2.10.2 A growing definition of BoP characteristics

Figure 2.16 summarises the synthesis of global BoP consumer characteristics that have been outlined in Section 2.7.

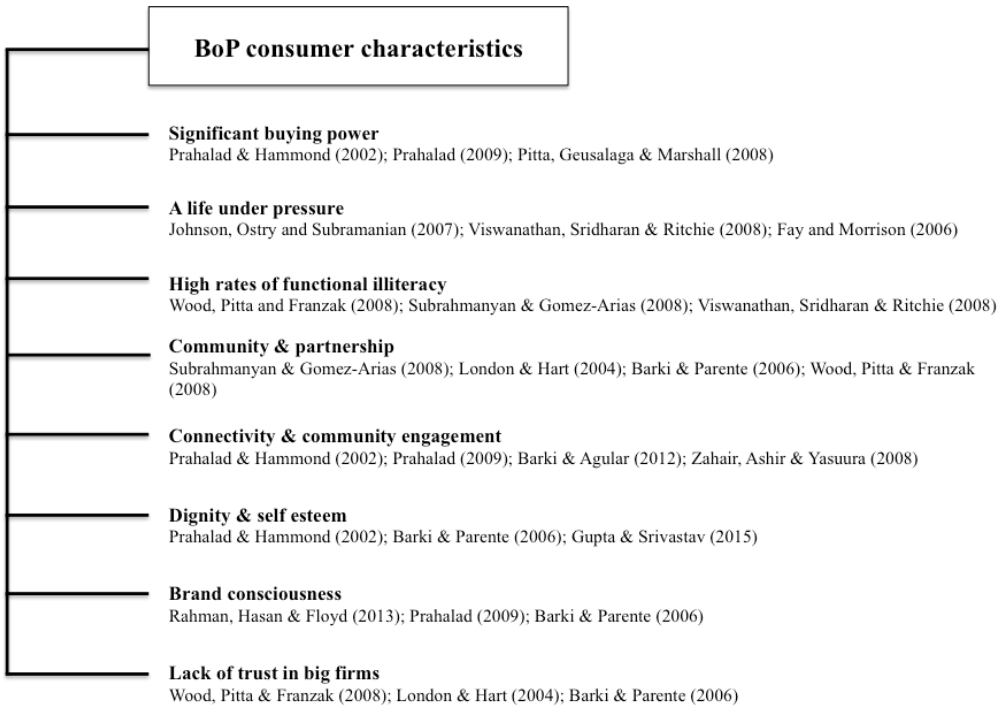

Figure 2.16: Summary of general BoP consumer characteristics sourced from various published articles.

In spite of the growing body of literature on the subject of BoP consumer behaviour, assumptions and misconceptions continue. Some additional misunderstandings from marketers have been observed. First, owing to low individual income, companies have assumed that BoP consumers do not spend on goods and services beyond their basic needs. Another misconception is that the goods sold in the BoP market are cheap and there is therefore no room for competitors to make a profit (Prahalad & Hammond, 2002). In reality, consumers often spend even more on certain goods and services than the middle class (D'Andrea, Stengel & Goebel-Krstelj, 2004; Barki & Parente, 2006; Gomez-Arias & Subrahmanyan, 2008). While price is a serious decision-making consideration, it is not the only one. BoP consumers factor in the total cost of the basket of goods that they purchase. Situational and economic

variables at the time of the purchase are also included in the calculations (D'Andrea, Stengel & Goebel-Krstelj, 2004). Opportunities exist for companies that have efficient supply chains and economies of scale to capitalise on this market (Prahalad & Hammond, 2002). Part of the rationale is that consumers are influenced by the location of stores, and often smaller frequent purchases are made rather than expensive larger scale purchases (D'Andrea, Stengel & Goebel-Krstelj, 2004). In order for corporations to serve the BoP market successfully, Prahalad and Hammond (2002) stated that executives need to confront their preconceptions and engage with the local BoP population. Changes will need to be made structurally (including R&D units in developing countries) and these corporations will need to join external partners who are established in the market (Nidumolu, Prahalad & Rangaswami, 2009). Similarly, Ismail, Ansell and Kleyn (2012) argue that companies who want to achieve success with the BoP consumer market need to consider scalability when launching a product, and to use the community in order to spread messages through word of mouth (WOM). The authors also see the need for non-conventional distribution methods to reach hard-to-access areas and to use nuanced accounting and evaluation procedures not only focused on immediate profit. Importantly, businesses need to cultivate perceptions of partnership and cooperation carefully, rather than focusing on purely competitive-mercantile perceptions (Wood, Pitta & Franzak, 2008).

In Figure 2.17, the South African BoP characteristics have been added to the framework in Figure 2.16 to incorporate the South African BoP characteristics into the global framework.

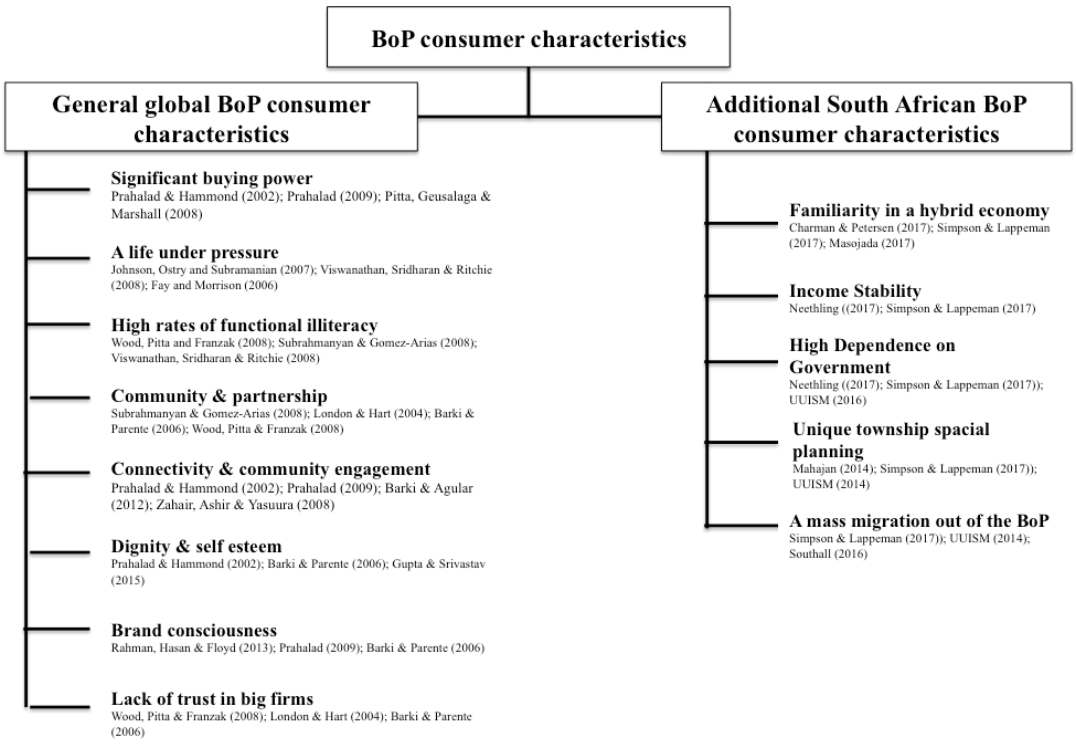

Figure 2.17: An updated framework for South African BoP consumer characteristics (author's own summary)

Elements of the South African consumer landscape, such as the high social wage injection, the unique economy, and special planning, creates a consumer profile that is not easily compared to other countries. For example, the social wage creates a stable monthly income for most BoP households in South Africa. The guarantee of income potentially creates a different decision-making platform than a household with no guaranteed monthly income. Planning becomes a viability for these households, and shopping can be planned around a fixed 'pay day'.

2.10.3 Gaps in understanding global and South African BoP consumer behaviour

While the body of BoP literature is growing, it remains relatively small considering the BoP has been estimated at four billion people (Prahalad, 2012). Table 2.8 shows often-cited peer-reviewed articles. Added to the table is a column where future research areas are highlighted.

Author & date	Marketing discipline	Methodology	Request for further research
(Prahalad & Hammond, 2002)	BoP concept and Strategy	Theoretical	None stated
(London & Hart, 2004)	MNC strategy	Exploratory qualitative (Asia, Africa, Latin America)	Deeper MNC strategy
(Hamilton & Catterall, 2005)	Consumer Behaviour	Theoretical	Challenge assumptions placed on BoP consumers including: Identity, stress and coping strategies, consumer agency, social capital, loyalty, lifetime value, profitability
(Karnani, 2007)	Strategy	Theoretical	Validity of the BoP concept that better selling to the poor improves BoP lives (implied)
(Barki & Parente, 2006)	Consumer behaviour	Exploratory qualitative (Brazil)	Consumer behaviour in other countries, case study examples of how MNCs are successfully meeting BoP needs
(Hammond, Kramer, Katz, Tran & Walker, 2008)	Market size and composition	Household survey data (multi-country)	More descriptive household data
(Pitta, Guesalaga & Marshall, 2008)	BoP concept	Theoretical and literature review	Consumer behaviour, BoP concept (reconciling opposing viewpoints), The role of MNCs in leading BoP initiatives
(Wood, Pitta & Franzak, 2008)	MNC strategy	Theoretical and literature	None stated
(Gomez-Arias & Subrahmanyan, 2008)	Consumer behaviour	Theoretical and literature	None stated
(Simanis, Hart & Duke, 2008)	MNC strategy	Theoretical and case study (India)	None stated
(Chikweche, Stanton & Fletcher, 2012)	Consumer behaviour	Qualitative and case study (Zimbabwe)	Consumer behaviour in other African countries
(Agnihotri, 2012)	BoP concept	Theoretical and literature	None stated
(Prahalad, 2012)	Marketing innovation	Theoretical and case study	None stated
(Simanis, 2012)	MNC strategy	Theoretical and case study	None stated
(Rahman, Hasan & Floyd, 2013)	Brand orientation, adoption of innovations	Quantitative (100 sample in Bangladesh)	None stated
(Kolk, Rivera-Santos & Rufín, 2013)	BoP concept	Literature	More research in Africa, business models and trade-off between profitability, social impact, and envi-ronmental impact. More cross pollination between BoP research and development economics.
(Simanis & Duke, 2014)	BoP concept and MNC strategy	Theoretical and case study	None stated
(Makanyeza, 2015)	Consumer behaviour, Loyalty	Quantitative (305 sample in Zimbabwe)	More loyalty research in other countries and using more product categories.

Table 2.9: Selection of regularly cited peer-reviewed non-South African BoP articles and cited calls for more research (authors own selection and summary)

Table 2.9 is a telling summary of the global peer-reviewed BoP literature to date. While there are other articles, the above selection is regularly cited in BoP literature reviews. Three clear conclusions can be drawn from the above analysis, each of which is discussed in the paragraphes below.

First, the BoP concept appears in stronger journals as a theoretical discussion on MNC strategy, and not as a case for empirical research on consumer behaviour. While the author does not find the theoretical case made for the BoP to be incorrect, the fact that the concept is still strongly fought on theoretical grounds shows that far more empirical evidence is required to give substance to the propositions that have been made over the last decade and a half. Another noteworthy observation is that the authors cite from a limited pool of literature as they build their theoretical arguments. Mercy is required as the relatively new concept is still in its genesis; however, the issue is in need of attention moving forward.

Second, the methodological approach to building knowledge around the subject of BoP consumer behaviour is very sparse when it comes to asking the consumers themselves. The abundance of theoretical and MNC case study approaches to discussing this consumer segment is apparent. In Table 2.8, only four of the studies observe BoP consumer behaviour through primary sample data (Barki & Parente, 2006; Stanton & Fletcher, 2012; Rahman, Hasan & Floyd, 2013; Makanyeza, 2015). Considering that the BoP is estimated to be around 4-5 billion people (see Table 2.8), the small sample of consumer research is problematic for emperically based theory generation.

Third, while not all authors stated further research opportunities, a significant call has been made to research further the BoP concept, MNC strategy and BoP consumer behaviour. Hamilton and Catterall (2005:628) called for more studies that show how "low-income consumers attempt to exert some control in their lives" given their resource constraints. They included a call for more information on consumer loyalty, lifetime value and bad debts of BoP consumers. Karnani (2007) was critical of the BoP concept as was initially proposed by Prahalad and Hart (2004), and said that there was more evidence needed to show that BoP consumers' lives are indeed improved by increased MNC focus on profitability. Barki and Parente (2006) made a

significant empirical contribution to defining BoP consumer behaviour, but they called for more research to be done in other continents (and countries) since they focused on Brazil alone. Hammond et al. (2008) made a multi-country household data comparison, but said that better descriptions of household patterns must be attained in future hoping that the BoP concept will improve economic inquiry as well as consumer behaviour. Pitta, Guesalaga and Marshall (2008) support the call for more characterisation of the low-income sector. The authors accurately believe that a better understanding of BoP consumers' needs, perceptions and behaviour will assist better business approaches. Both Chikweche et al. (2012) and Kolk et al. (2013) specifically mentioned the lack of consumer behaviour research in Africa. Kolk et al. (2013) also highlighted the need for research on business models and the trade-off between company profitability and phenomena like social and environmental impact. The authors likewise called for more cross-pollination between BoP strategy research and development economics. Makanyeza (2015) joined the call for more loyalty-related research in more countries, using more product categories.

In South Africa, the body of literature on a consumer group that makes up almost 70% of the population is also relatively sparce. Table 2.10 is a table of peer-reviewed South African journal articles and specific requests for further research.

Author & date	Marketing disciplines	Methodology	Request for further research
(Duvenage, Schonfeldt, & Kruger, 2010)	Consumer behaviour	Primarily quantitative (Sample of 502)	None mentioned
(Jacobs & Smit, 2010)	Consumer behaviour	Quantitative (Sample of 217)	Consumption patterns, needs and challenges faced by low-income consumers
(Human, Ascott-Evans, Souter, & Xabanisa, 2011)	Advertising, branding, loyalty	Quantitative (Sample of 206)	Better understand heterogeneity of BoP Brand loyalty measurement (especially behavioural)
(Chipp, Corder, & Kapelianis, 2012)	Consumer behaviour, Segmentation	Quantitative from archived data	Data on changes in BoP living standards over time Nature of BoP loyalty

Table 2.10: Peer reviewed South African BoP articles and cited calls for more research (author's own summary)

The status of South Africa as the largest economy in Africa, one of the key global emerging markets (as part of BRICS) makes the lack of South African BoP research a pressing need to address. One possible explanation for the lack of research was highlighted by Simpson (2017), who maintained that researchers often prefer the comfort of researching consumers from their own familiar (generally more wealthy) income segments.

Duvenage et al. (2010) completed a primarily quantitative study of food product attributes that guide maize-meal purchase choice by BoP consumers. The study provided useful results, but is hard to extrapolate into other categories and provided no specific direction for further research. In the same year, Jacobs and Smit (2010) observed the connection between indebtedness and materialism in a South African BoP context. The 217 participants provided significant results, and the authors called for more research on consumption patterns as well as the needs and challenges faced by low-income consumers. Human et al. (2011) quantitatively drew connections between advertising, brand knowledge and attitudinal loyalty in South African low-income markets. The authors also made a call for a better understanding of BoP market heterogeneity and brand loyalty measurement (especially behavioural). Chipp et al. (2012) approached BoP loyalty from a macro-data perspective as they provided a segmentation model. While valuable to marketers, the model was based on existing LSM data and not on primary research.

Each of the above studies makes a significant contribution to the South African BoP narrative, but also exposes how many gaps exist in analysing the South African BoP as a unique market, as well as comparisons between South Africa and other markets. The economic data outlined in Chapter 2.11 also holds limited value for marketers. While a great indicator of change, the details of monthly variability are not within the scope of these studies nor of the economic based data from the South African income and expenditure. In addition, marketing strategy is based on segmentation strategies and the acknowledgement that not all consumers have the same means and priorities (Schiffman & Kanuk, 2014; Kotler & Armstrong, 2015). The change in household expenditure over different surveys (whether a function of collection methodology or actual change in economic status) assists marketers with a macro-picture of South

African consumers, but does little to provide a window into consumers' regular expenditure patterns and decision-making.

2.11 Chapter Summary

This chapter has outlined the BoP as a general concept, and discussed BoP consumer behaviour in specific. The focus of the chapter started with an analysis of BoP measurement and benchmarking on a global scale. In addition, literature defining the qualities of the BoP as a consumer group was analysed for trends. Once the global foundation was presented, the South African BoP was also compared to global norms in terms of definition and characteristics. While a number of similarities exist, the South African BoP also has unique characteristics. In the next chapter, literature about consumer decision-making will be reviewed and finally combined with the above BoP concept literature in order to point towards the research problem.

Chapter Three

Consumer Decision-making

3.1 Introduction

The previous chapter introduced the BoP concept with its various definitions and characteristics. In this chapter, a survey of literature on consumer decision-making is presented. The chapter starts with an overview of decision-making through both the lens of microeconomic choice theory and marketing consumer behaviour. Through those lenses, two branches emerge in connection with the research question. The first branch examines consumer loyalty as a function of decision-making theory. This section covers general loyalty theory as well as both attitudinal and behavioural loyalty. The second branch of literature looks at BoP decision-making and the connections to the available BoP loyalty theory. The final part of this chapter then synthesis the loyalty literature that was outlined, and then merges the gaps in the literature with those found in Chapter Two. Figure 3.1 maps out the themes presented in chapter 3.

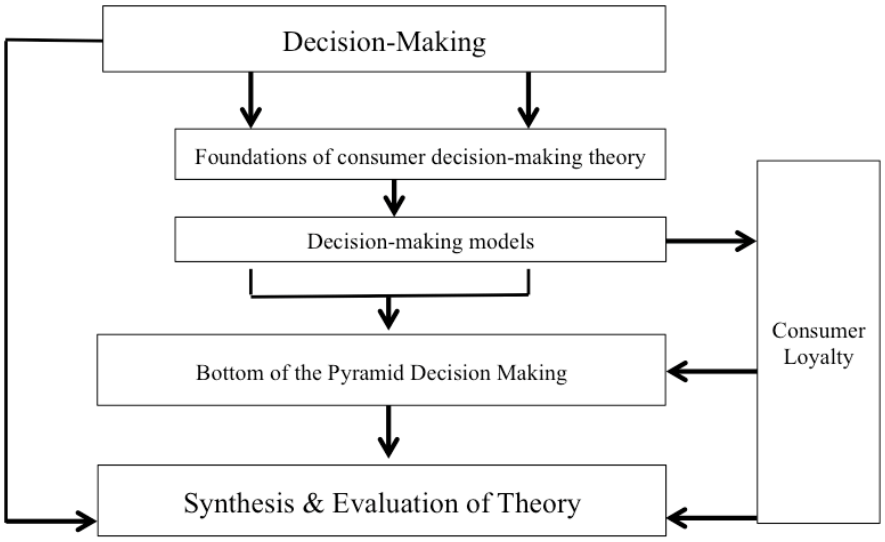

Figure 3.1. Literature map for Chapter Three

Before unpacking the details of a marketing definition of decision-making, the basic term itself needs to be defined. Table 3.1 shows how three dictionaries define the terms 'decision-making' and 'choice':

Dictionary	Decision-making	Choice
(Merriam-Webster, 2016)	*"The act or process of deciding something especially with a group of people"*	"*The act of choosing*"
(Oxford, 2016)	"*The action or process of making decisions, especially important ones."*	*"An act of selecting or making a decision when faced with two or more possibilities"*
(Macmillan, 2016)	*"The process of deciding what to do about something, especially in an organization"*	"*The opportunity or right to choose between different things*"

Table 3.1: Defining 'decision-making' and 'choice'

In essence, the concept of decision-making or choice involves the selection process between alternatives. This process of selection is the very essence of marketing, which assumes that consumers have needs, as well as options to fulfill those needs (AMA, 2016).

The research question for this study explores the nature of BoP expenditure and the trade-offs that occur between expenditure categories on a monthly basis. In order to understand the research question fully, this chapter will explore the various decision-making theories. The chapter will then to go on to synthesise the literature from Chapters Two and Three before introducing the methodology.

3.2 Early theories of decision-making

Decision-making is not a new discipline, nor does it have its foundations in marketing. Economists, psychologists, philosophers and sociologists have long been interested in the way that people make their choices. Before observing how modern marketing has added to the general body of decision-making theory, this section will provide a survey of various theories that underpin the development of consumer behaviour models. The section will describe the Marshallian model, Pavlovian model, Freudian model, Veblenian model and Hobbesian model as outlined by Mpinganjira and Dos Santos (2013).

3.2.1 Foundational models of decision-making

Alfred Marshall (1842-1924) was one of the founders of modern economic theory. The Marshallian model addresses consumer decision-making from a rational perspective (Asamoah & Chovancová, 2011; Mpinganjira & Dos Santos, 2013). The assumption that consumers strive to maximise their utility by acting in their own interest has been criticised in marketing circles. Marketing theory tends to reject rigid thinking about consumer decisions. For example, when prices drop for luxury goods the demand for these goods does not automatically rise, as microeconomics would assume. Table 3.2 is adapted from Varian (2010), De Villiers and Frank (2011) and McDowell et al. (2009) and illustrates some microeconomic theories that form a foundation for decision-making theory, but are rejected in pure form by marketers.

Consumer demand theory	Consumer demand theory relates preferences for the consumption of both goods and services to the consumption expenditures. The relationship between preferences and consumption expenditures is used to relate preferences to consumer demand curves. The link between personal preferences, consumption and the demand curve is one of the most closely studied relations in economics. The theory analyses how consumers may achieve equilibrium between preferences and expenditures by maximising utility subject to consumer budget constraints.
Scarcity theory	Scarcity (also called paucity) is the fundamental economic problem of having seemingly unlimited human wants in a world of limited resources. Scarcity involves making a sacrifice—giving something up, or making a tradeoff—in order to obtain more of the scarce resource that is wanted.
Marginal propensity to consume	Marginal propensity to consume (MPC) is a metric that quantifies induced consumption, the concept that the increase in personal consumer spending (consumption) occurs with an increase in disposable income (income after taxes and transfers).
Permanent income hypothesis	The permanent income hypothesis (PIH) attempts to describe how consumers spread consumption over their lifetimes. First developed by Milton Friedman, it supposes that a person's consumption at a point in time is determined not just by their current income but also by their expected income in future years—their "permanent income". In its simplest form, the hypothesis states that changes in permanent income, rather than changes in temporary income, are what drive the changes in a consumer's consumption patterns.
Tradeoff theory	Tradeoff theory is expressed as opportunity cost, referring to the most preferred alternative given up. A tradeoff, then, involves a sacrifice that must be made to obtain a certain product, service or experience, rather than others that could be made or obtained using the same required resources.
Choice theory	The theory of consumer choice analyses how consumers maximise the desirability of their consumption as measured by their preferences subject to limitations on their expenditures, by maximising utility subject to a consumer budget constraint.
Substitution effect	The substitution effect is one component of the effect of a change in the price of a good upon the amount of that good demanded by a consumer, the other being the income effect. When a good's price decreases, if hypothetically the same consumption bundle were to be retained, income would be freed up which could be spent on a combination of more of each of the goods. Thus the new total consumption bundle chosen, compared to the old one, reflects both the effect of the changed relative prices of the two goods (one unit of one good can now be traded for a different quantity of the other good than before as the ratio of their prices has changed) and the effect of the freed-up income. The effect of the relative price change is called the substitution effect, while the effect due to income having been freed up is called the income effect.

Income effect	The income effect is the phenomenon observed through changes in purchasing power. It reveals the change in quantity demanded brought by a change in real income. Graphically, as long as the prices remain constant, changing income will create a parallel shift of the budget constraint. Depending on the indifference curves, as income increases, the amount purchased of a good can either increase, decrease or stay the same.
Engel's law	Engel's law is an observation in economics stating that as income rises, the *proportion* of income spent on food falls, even if *actual* expenditure on food rises.

Table 3.2: Outline of Micro-economic (Marshallian) theories that have influenced decision-making models in marketing, adapted by the author from Varian (2010), De Villiers and Frank (2011) and McDowell et al. (2009).

From Table 3.2, the connection between economics and marketing is evident. Both disciplines are deeply rooted in understanding the decision-making process. In recent theory, scholars like Herbert Simon (1955), Tversky and Kahneman (1981) have included non-rational processes into the study of behavioural economics. Their work, and the work of others like Hausman (2012), is unfriendly to the rational choice models of classic microeconomics. The economics of choice, however, needed more psychosocial dimensions, and hence the inclusion of both Pavlovian and Freudian theories as described next.

Learning theory originated from Russian psychologist Ivan Pavlov (1849-1936) who developed many of the stimulus-response models used today. Understanding drives, cues, responses and reinforcement are commonplace in advertising theory (Jacoby, 2002). The marketing applications assume that consumers not only need to be exposed to stimuli, but also require experience (test) and reinforcement (Hawkins & Mothersbaugh, 2013; Schiffman & Kanuk, 2014). The psychology of decision-making has developed significantly since Pavlov's early theory and is used extensively today (Mpinganjira & Dos Santos, 2013).

Sigmund Freud (1856-1939) was another key figure in the history of decision-making theory. Freud is known as the founding father of psychoanalysis and he wrote extensively on consumer motivations and the influence of symbolism of decision-making (Mittal & Sheth, 2004). Freud-like understanding is generally not sufficiently obtained by structured questionnaires, and the use of qualitative methods are key (Mpinganjira & Dos Santos, 2013). The depth and complexity of decision-making is highlighted by consumer psychology as being a key driver of decision-making (Jansson-Boyd, 2010). Modern marketing consumer behaviour models now include a

number of psychological constructs like attitude, personality and learning (Schiffman & Kanuk, 2014).

The Veblenian model was designed by Thorstein Veblen (1857-1929) and included the discipline of social anthropology and psycho-social factors on consumer decision-making (Kastanakis & Balabanis, 2012). According to Veblenian, the influence of culture and other reference groups cannot be excluded from decision-making theory. While attitudes do change with time, the internal drivers or decision-making are key, and Veblen's work was noted in the writings of Karl Marx who also brought together economic and social concepts through his writings (Erasmus, 2013; Mpinganjira & Dos Santos, 2013). In a country like South Africa, the rich and diverse cultural heritage, as well as the political complexity, means that socio-cultural factors are relevant to understanding consumers. For example, the eleven official South African languages (and the various cultures that found these languages) can make the choice of brand communication very complex (Schiffman & Kanuk, 2014; Kotler & Armstrong, 2015; Simpson & Lappeman, 2017). In addition, Hofstede's (1984) cultural typology of a country like South Africa is difficult to use as it generalises a highly heterogeneous collection of cultures (Saleem & Larimo, 2017). More targeted understanding of local BoP culture is vital to adequate marketing value propositions (Simpson & Lappeman, 2017).

The Hobbesian organisational factors model was compiled by Thomas Hobbes (1588-1679) as an addition to the mostly personal decision-making models from before. Hobbes was able to acknowledge the conflict between personal and organisation interest that is felt by organisational decision-makers (Bunce, 2009). Although not directly relevant to the personal decision-making theory that founds this thesis, the role of conflict is highly relevant to household decision-making (Erasmus, 2013). These household-relevant decisions are often made by individuals.

3.2.2 Summary of early decision-making models in light of the BoP

This previous section has outlined the fundamental models that underpin modern consumer behaviour theory (see Figure 3.2). While each model has elements that clearly contributed to the theory of decision-making, each theorist was highly influenced by their own (non-marketing) goals.

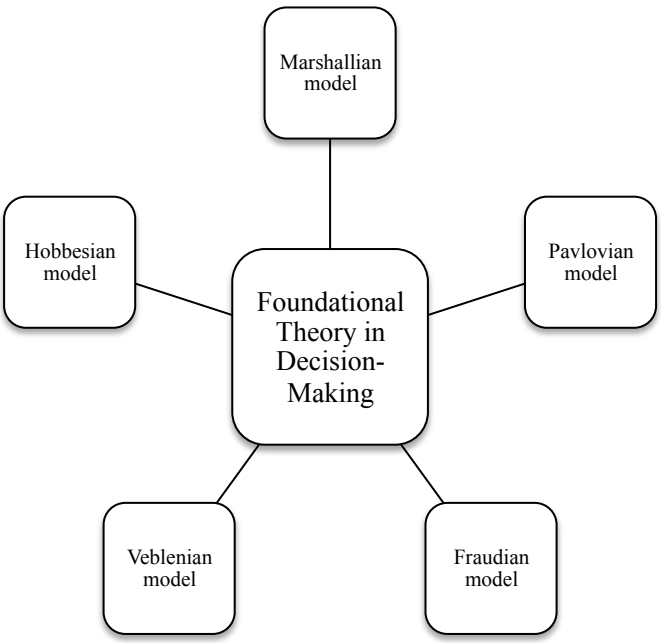

Figure 3.2: Foundational theories of decision-making adapted from the framework used in Mpinganjira and Dos Santos (2013)

The microeconomic models of choice (Marshall) described in Table 3.2 each provide a slice of truth to how consumers make decisions. The applications of scarcity theory and tradeoff theory are particularly relevant to BoP consumers. The challenge with economic models transecting into the marketing discipline is that the reductionism cannot easily be reconciled with the reality of people's lives. The ability to isolate and even graph behaviour has always hinged on the assumption of '*ceteris paribus*' – all things remaining equal (McConnel, Brue & Flynn, 2009). Most classic microeconomic theories also assume a rational consumer. The assumption of rationality is opposed in marketing at a very fundamental level. Nonetheless, the Marshallian-related models do form a foundation on which to conceptualise consumer theory. The psychographic and social-anthropological models of decision-making added a significant texture to the theory of decision-making by combining both internal and external drivers of behaviour. The applications of their theories are directly applicable in marketing, and are often cited in consumer behaviour textbooks (Hawkins & Mothersbaugh, 2013; Mpinganjira & Dos Santos, 2013; Schiffman & Kanuk, 2014). The challenge with their theories, however, is that the BoP was hardly ever a consideration. All of the theorists were from developed countries, and were not specifically focused on building BoP theory. The overlap between the general findings of Pavlov, Freud and Veblen and BoP consumer behaviour is acknowledged.

However, a more critical perspective is needed from both a marketing, and more specifically BoP consumer behaviour, perspective.

Before identifying gaps in the BoP consumer behaviour research, an analysis of how the aforementioned foundational models of decision-making have been adapted into more refined models is needed, in order to assist in explaining consumer choice. As in the case of these foundational models, the BoP was rarely a consideration when developing the models. Nevertheless, since the dawn of modern marketing[13], consumer behaviorists have been adding to and assimilating old theories into new and constantly updating models. The constantly updated models show a growing multi-disciplinary approach to the subject of choice as well as an acceptance that most models assume some reductionist inclination. A summary of the various models is outlined in the section that follows. The section will end with a synthesis of the discussion about the merits of such models in light of the BoP.

3.3 Modern consumer decision-making theory

In this section, the consumer decision-making process is analysed using multiple models from marketing and consumer psychology literature. The section starts with a brief definition of consumer behaviour followed by an overview of the key decision-making models in light of BoP characteristics, and finally the overview is summarised and key insights are stated.

3.3.1 Defining consumer behaviour

Walters (1974) defines consumer behaviour as:

> *"... the process whereby individuals decide whether, what, when, where, how, and from whom to purchase goods and services".*

Twenty years later, Schiffman and Kanuk (1997:23) define consumer behaviour as: "The behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products, services, and ideas." They elaborate on the definition by explaining that consumer behaviour is the study of how individuals make decisions to spend their available resources (time, money, effort) on consumption-related items.

[13] Theodore Levitt (1960) arguably ushered in the modern marketing concept in his Harvard Business Review article, “Marketing Myopia”.

The above basic definitions that underpin the study of decision-making hold in most marketing scenarios, although there has been some discrepancy over what sub-disciplines fall under the broad consumer behaviour framework (Macinnis & Folkes, 2009).

As a clear subset of consumer behaviour (Macinnis & Folkes, 2009; Schiffman & Kanuk, 2014) consumer decision-making has a decidedly marketing orientated definition. Prasad and Jha (2014:335) articulate a definition as follows,

> *"Consumer decision-making pertains to making decisions regarding product and service offerings. It may be defined as a process of gathering and processing information, evaluating it and selecting the best possible option so as to solve a problem or make a buying choice".*

The models discussed in the next section are based on the foundational theory in the previous section. The models, however, are specifically designed to understand consumer behaviour better. Each of the models is then briefly assessed for appropriateness in accounting for the BoP consumer characteristics described in Chapter Two. Although ten models are discussed in this section, most of them account for only some BoP characteristics. Only one, the Hawkins, Best and Coney (1989) that was later adapted into Hawkins and Mothersbaugh (2013), provides an adequate decision-making framework by which to understand BoP consumer behaviour. The models are discussed in chronological order of their first major citation. The section is then followed by an overview of loyalty, which is a subset of decision-making.

3.3.2 Decision-making models

The following series of models have been proposed to explain consumer decision-making over the past half century[14]. The first ten models were proposed for analysis by Prasad and Jha (2014) in their comprehensive study on consumer decision-making. The three models that follow were not included by Prasad and Jha, but are still useful for this literature review in achieving a comprehensive overview of the subject.

[14] Based on historical foundations in economics and psychology, a renewed focus on consumer decision-making models was pioneered by the formation of the Association for Consumer Research in 1969 (Mpinganjira and Dos Santos 2013).

As complex as decision-making is, there is a distinct advantage in modeling such behaviours. Models provide a frame of reference and outline relevant concepts to use in theoretical frameworks (Imenda, 2014). Models also help researchers to formulate hypotheses and to contribute to the building of knowledge. Not all models are appropriate for every kind of research endeavor, and a base knowledge of the different models can assist in designing research methodologies (Mpinganjira & Dos Santos, 2013).

Andreason (1965) proposed an early model of consumer behavior that recognised the importance of both information and consumer attitudes in the consumer decision-making process. This model unfortunately does not adequately address the crucial aspect of consumers' motivation to engage in repeat purchasing behaviour. The Andreason model appears in Figure 3.3.

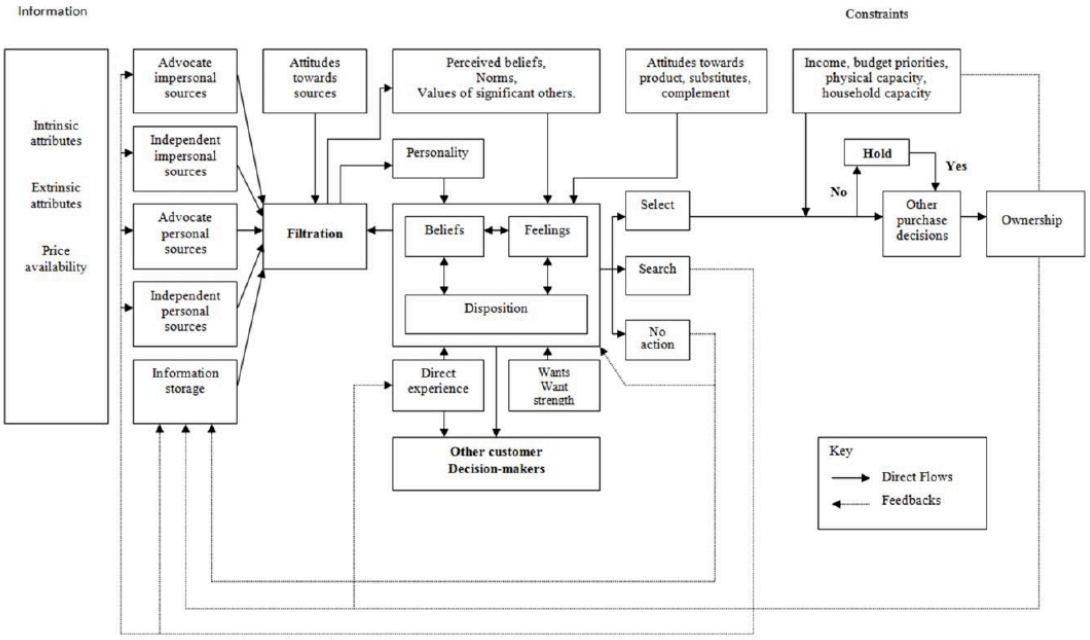

Figure 3.3: Andreason Model (Andreason, 1965)

While the Andreason model provided some insights that were incorporated into later models, a number of BoP related features were not addressed. For example, scarcity and highly volatile situational variables (key features of the BoP) are not easily explained by the model even though they are key characteristics in BoP consumer behaviour. In South Africa, for example, the scarcity of resources for the majority of households means that stated drivers of behaviour like personality may be superceded

by necessity. For example, a consumer might be inclined to connect with a particular brand personality as intentionally created by marketers (Schiffman & Kanuk, 2014), but then be forced to choose a cheaper competing brand due to a need to lend a family member money. This kind of consumer phenomenon is highly relevant in South Africa, but not well represented by the Andreason model.

The Howard-Sheth (1969) model (Figure 3.4) was important in the development of decision-making theory as it highlighted the importance of inputs to the consumer buying process. The model then suggests ways in which the consumer orders the inputs before making a final decision. The Howard-Sheth model was a significant step towards more BoP appropriate decision-making models, and there is evidence of its influence in the model by Shiffman and Kanuk (1997) with regards to internal and external drivers of behaviour. The inclusion of generic drivers like 'choice criteria' could better represent the BoP, although whether this was intentional or not is unknown. There are multiple choice criteria that are relevant to South African BoP consumers that could be completely different to non-South African segments or segments with higher disposable incomes. For example, a consumer may need to choose between traveling far (at greater expense) to a shopping mall or visiting a small local spaza shop. The mall would have a large variety of brands and better prices, but the higher priced and limited spaza will be more convenient with low travel costs. This kind of choice can significantly affect brand choice, and yet is not represented in the Howard-Sheth (1969) model.

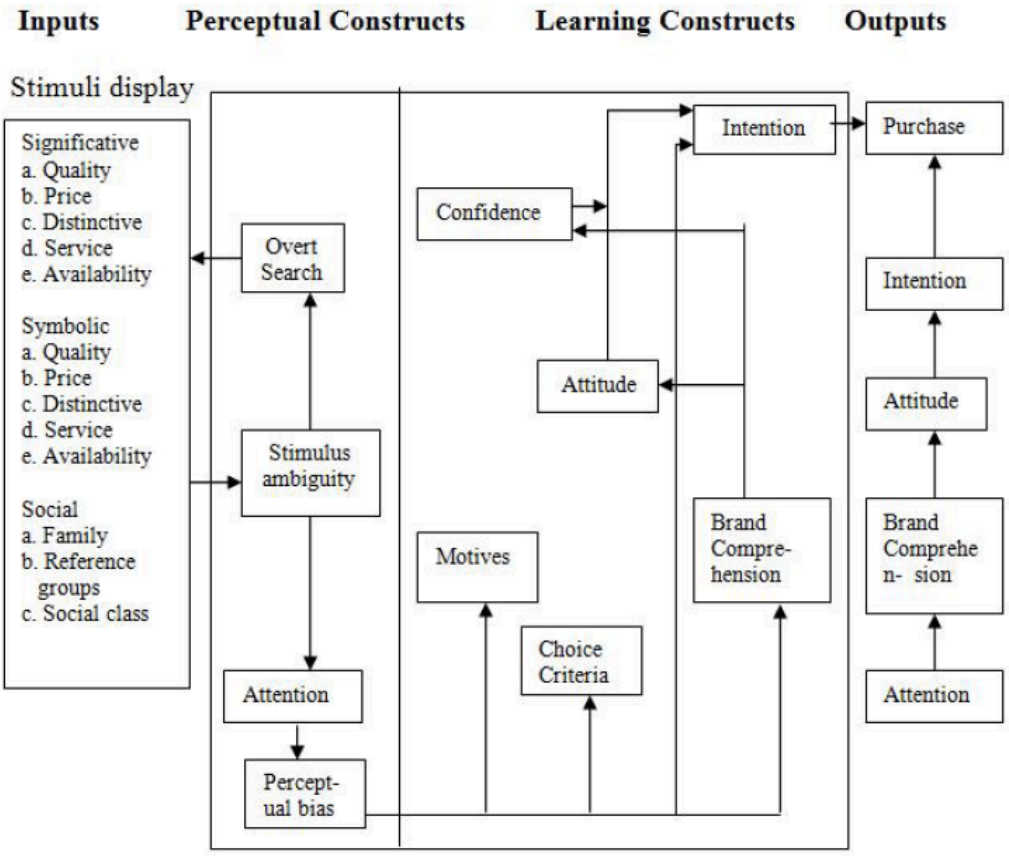

Figure 3.4: Howard-Sheth Model (Howard & Sheth, 1969)

While not a direct end-consumer model, Sheth (1973) proposed a model of industrial buyer behaviour that has some key similarities with consumer models. The model describes that the choice of a supplier or brand is the outcome of a systematic decision-making process within the organisational setting. There is, however, sufficient evidence to suggest that at least some of the industrial buying decisions are determined by ad-hoc situational factors and not by any systematic decision-making process. In these situations, the industrial buyers often decide on factors other than rational or realistic criteria as would a consumer in other models.

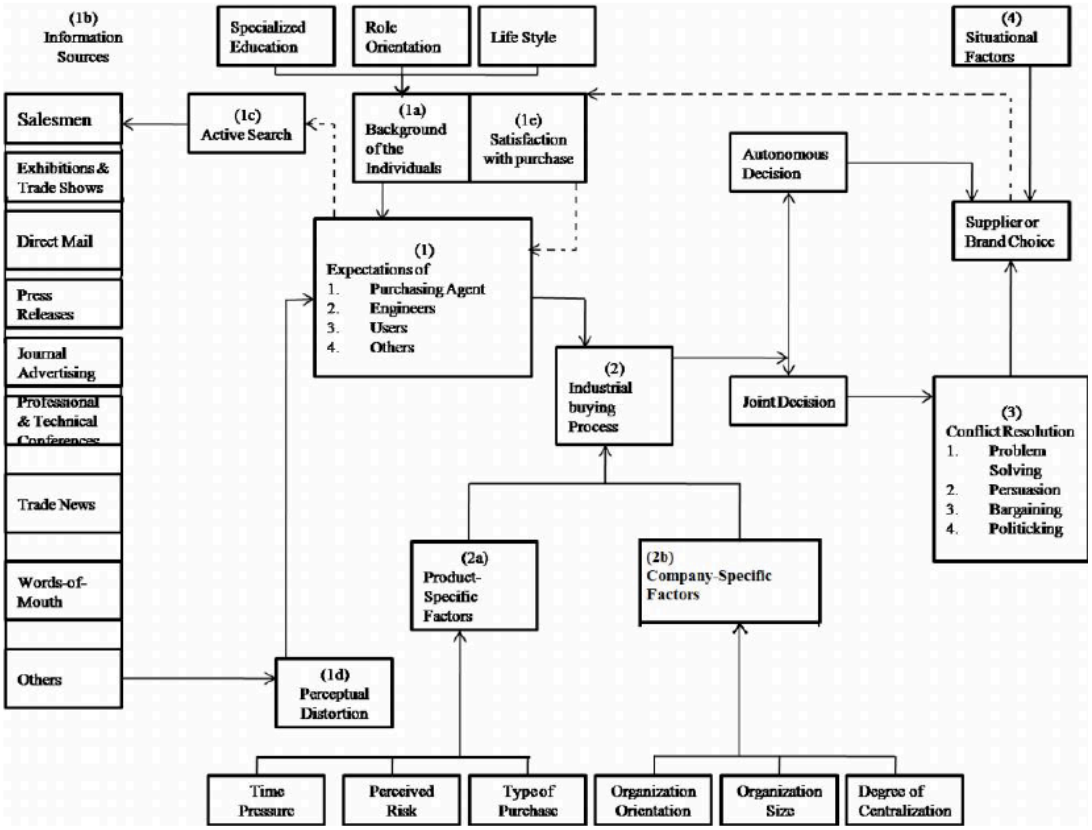

Figure 3.5: Industrial Buyer Decision Model (Sheth, 1973)

The inclusion of a model that is not end-consumer based is not without relevance. The fact that Sheth (1973) is able to acknowledge ad-hoc situational factors is notably not well reflected in the consumer-centric models of the same era. BoP consumer behaviour in particular shows strong evidence of both ad-hoc situations and systematic (routine) decision-making. For example, a consumer may plan to buy a particular brand of washing powder, but when this consumer arrives at the point of purchase another item like rice may be on special. In such a situation, the consumer may be willing to compromise on the preferred brand of washing powder in order to purchase a larger bag of rice.

Francesco Nicosia (1976) proposed a model that concentrates on the buying decision for a new product. The model concentrates on the firm's attempts to communicate with the consumer followed by the consumer's response (predisposition to act). This feature was Field One, which was followed by a search evaluation process (influenced by attitudes) called Field Two. The actual purchase process (Field Three) and the post-purchase feedback process (Field Four) make up the model.

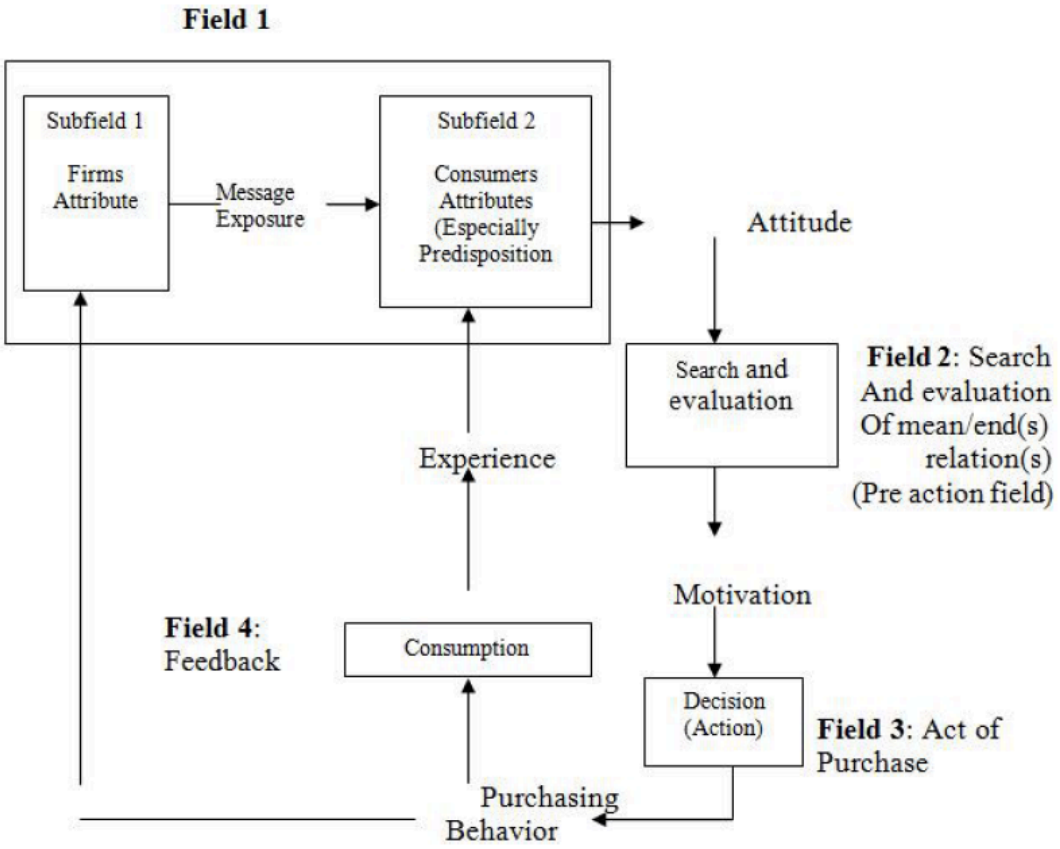

Figure 3.6: Nicosia Model (Nicosia & Robert, 1976)

In a similar way to the Andreason Model, the Nicosia model does not adequately account for certain BoP characteristics like income inconsistency. The model puts consumer attitudes and the firm's message to the forefront, but does not elevate situational variables (key to BoP behaviour) in the same way. In South Africa, marketing communication may have an impact on shifting attitudinal loyalty in the BoP, but the influence of a marketing message on actual decision-making is dependent on multiple situational variables like availability and income fluctuations (Pitta, Guesalaga & Marshall, 2008). In this example, an assumption is made that attitude drives behaviour. While often true, the South African BoP market shows evidence that attitudinal loyalty is not always followed by behavioural loyalty (Simpson & Lappeman, 2017).

Bettman's (1979) model of information processing and consumer choice describes the consumer as having limited capacity for processing information. The implication of the model is that consumers rarely analyse complex decision-making alternatives, and

apply very basic decision-making strategies. The model has seven major stages starting with processing capacity and motivation, which are then followed by attention and perceptual encoding. The model then moves onto stages of information acquisition and evaluation as well as memory. Finally, the consumer will go through a decision process, consumption, and learning process.

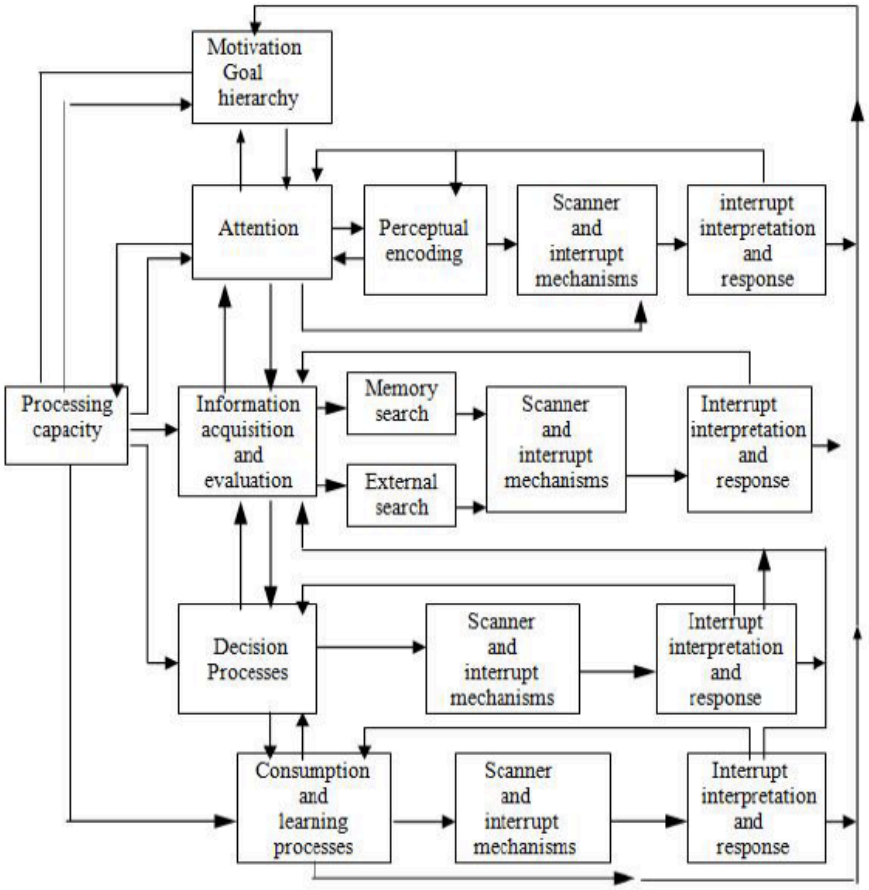

Figure 3.7: Bettman's Information Processing Model (Bettman, 1979)

Bettman's Information Processing Model, like the other models in the 1960s and 1970s, was especially internal-driver focused. The lack of emphasis on situation stands in stark contrast to some of the models that were developed in the decades later. The model has very limited use when assessing BoP decision-making as many consumer characteristics (like situation, income variability and culture) are not adequately accounted for or in the model. For example, in BoP South Africa an internal mechanism for a particular choice of shampoo may be overruled by an immediate need to have money available for public transport to work. The resource constraints of the South African BoP household means that the above kind of trade-

off is a regular occurrence and cannot be omitted from conceptualising a decision-making model.

Gilbert (1991) suggested a model for consumer decision-making that suggests a two level effect on the consumer. The first level of influences is close to the person (including psychological influences like perception and learning). The second level of influences includes those developed during the socialisation process (including reference groups and family).

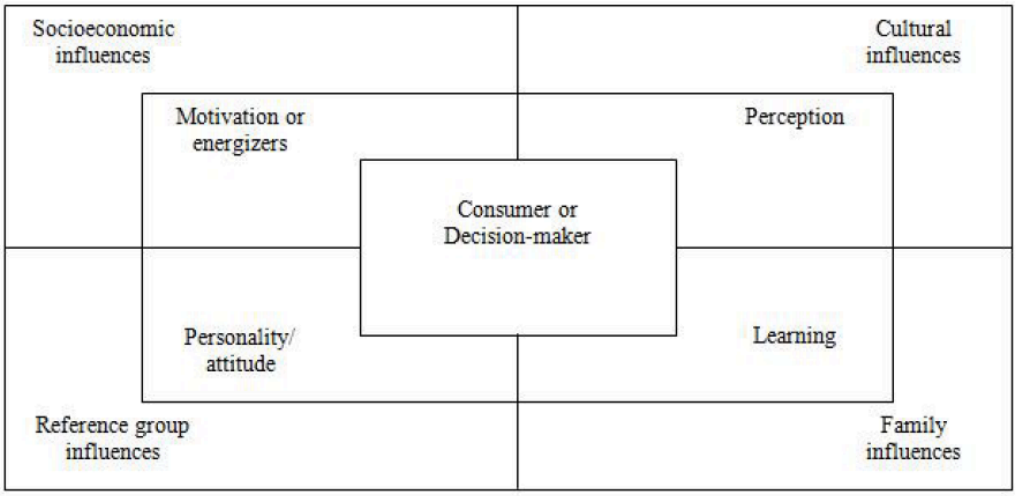

Figure 3.8: Model of Consumer Decision-Making Framework (Gilbert, 1991)

Gilbert (1991) provides a model that has similar challenges to many of its predecessors when evaluating the BoP. The influence of reference groups is paramount in the BoP, but the proposed models are still too far removed from the realities of scarcity faced by many BoP consumers.

According to the Sheth-Newman-Gross model (1991), five consumption values influence consumer choice behavior. The values are functional, social, conditional, emotional, and epistemic values. According to the model, any or all of the five of the consumption values may influence a particular decision.

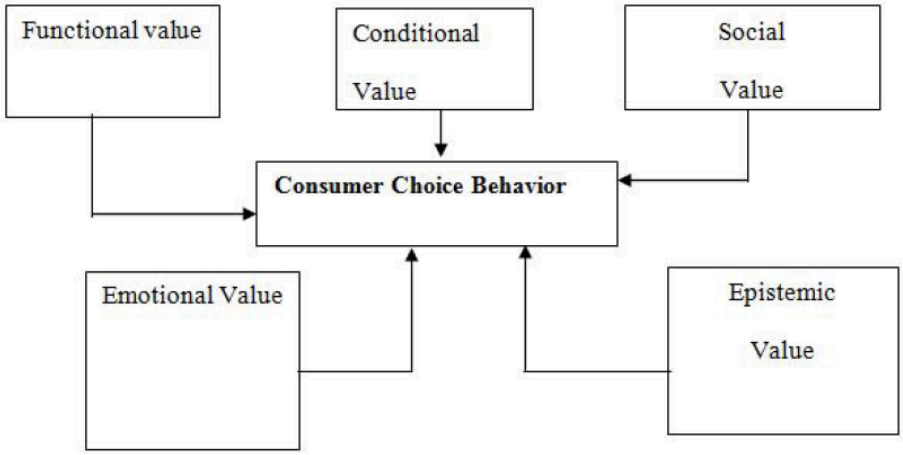

Figure 3.9: The Sheth-Newman-Gross Model of Consumption Values (Sheth, Newman & Gross, 1991)

While the Sheth-Newman-Gross model of consumption values broadly incorporates key decision-making areas, the model is too simplistic to be of practical value for marketers who want to understand BoP decision-making. The model does not synthesise the fact that BoP consumers can display a very high level of social and emotional value to a brand, but then simultaneously purchase another brand due to end of month budgetary constraints (Simpson & Lappeman, 2017).

Middleton and Clarke (1994) proposed an adapted model of decision-making that was termed the stimulus-response model of buyer behavior. The model is based on the four components with the central component being 'buyer characteristics and decision process'. The model separated the motivators and determinants in buying behavior, and emphasised the impact that an organisation's communication channels can have on the consumer buying process.

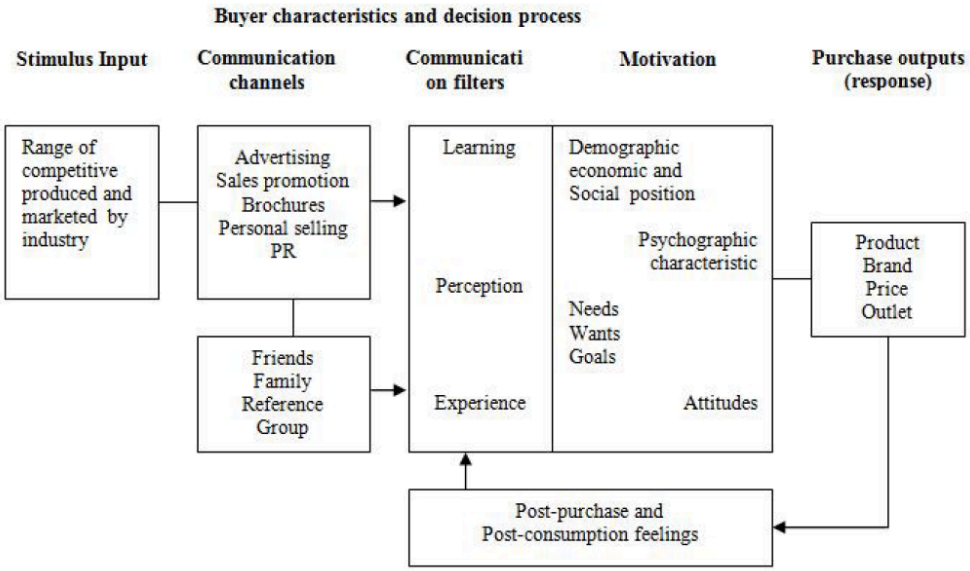

Figure 3.10: Stimulus-Response Model of Buyer Behavior (Middleton and Clarke, 1994)

The model is based on the simple 'black box' concept as is used to represent the basic stimulus-response theory in multiple fields of study (Hirschman, 1985). The concept has been extensively used in consumer behaviour to show that consumers process various stimuli (for example price or brand) through a mysterious transformation in their psyche (the 'black box') into a response (for example to purchase or not to purchase). Arguably, the model is the foundation of all other models and has been expanded greatly to expose more adequately insight into the consumer mind (Tan, 2010). While the original model has been expanded to include multiple elements, the simple stimulus-response system is still an important way that marketers can understand the decision-making process (Hirschman, 1985; Mpinganjira & Dos Santos, 2013; Schiffman & Kanuk, 2014; Kotler & Armstrong, 2015).

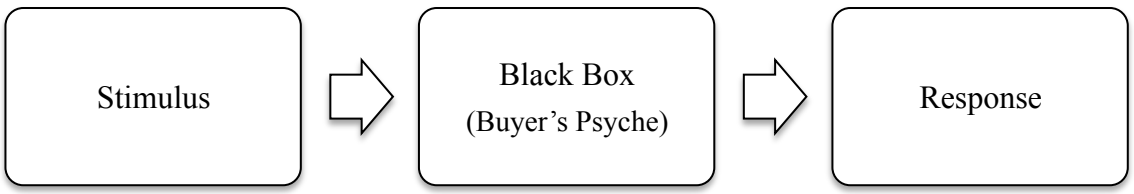

Figure 3.11: The Basic Stimulus-Response 'Black Box' Model (Schiffman & Kanuk, 2014)

The stimulus-response model also provides a useful tool for understanding consumer behaviour. A challenge with the model (as is the case with the 1969 Howard-Sheth model) is the lack of focus on situational variables. The model provides a psychographic filter through which to understand decision-making, but the filter is not an adequately appropriate situational filter to account for BoP decision-making. The BoP buyer's psyche is one of multiple factors that impacts decision making.

The Engel-Kollat-Blackwell (1995) model incorporates four stages and incorporates items such as values, lifestyle, personality and culture. The first stage is the decision-process stage, which is followed by information input and information processing. Finally, the variables influencing the decision process are included.

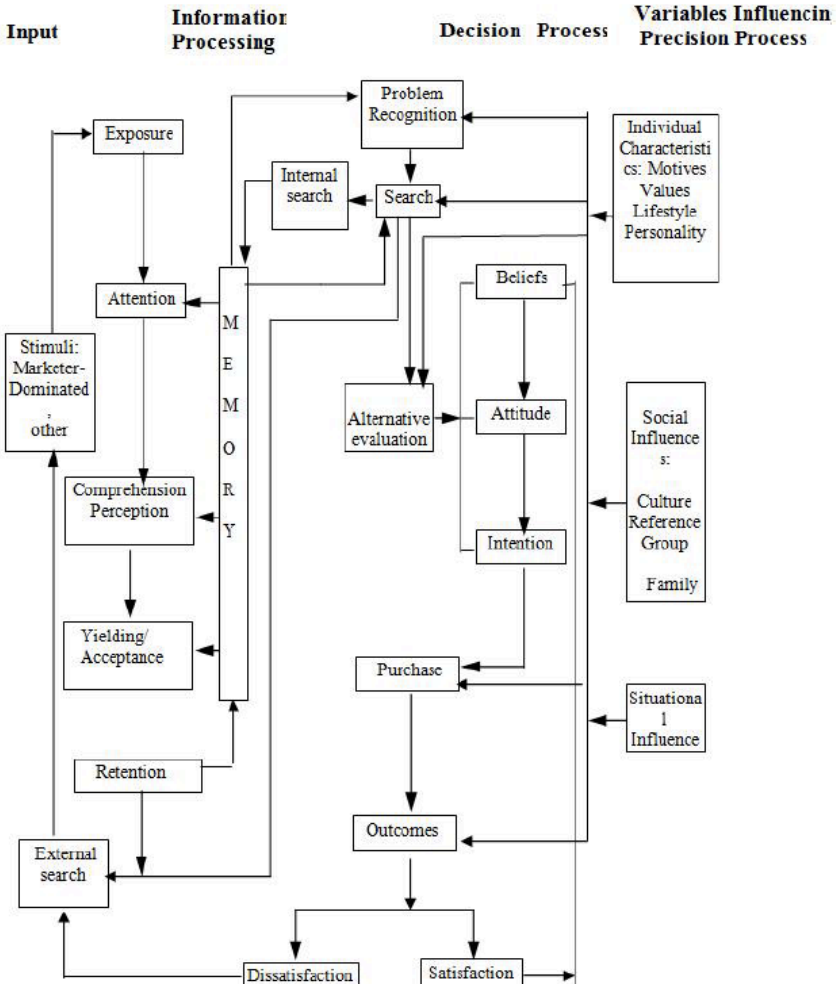

Figure 3.12: Engel-Kollat-Blackwell model (Engel, Blackwell, & Kollat, 1995)

The Engel-Kollat-Blackwell (1995) model was a major step towards including BoP characteristics. As in the previous model, the intentionality of representing the BoP is unknown. The result, however, is a model that places socio-cultural and situational factors at key junctures in the model. This conceptulisation of decision-making is far more aligned to include the BoP than many of the models before it. In South African BoP households, socio-cultural and situational variables might be of key importance to a specific brand choice. Without accounting for both of these drivers of behaviour, models are incomplete in representing the South African BoP.

The Solomon Model of Comparison Process (1996) displays a consumer as engaging in a process of need identification, purchase decision, and then the use (disposal) of the product. The model explains some of the issues that are addressed during each stage of the consumption process as well as what is termed the 'exchange'.

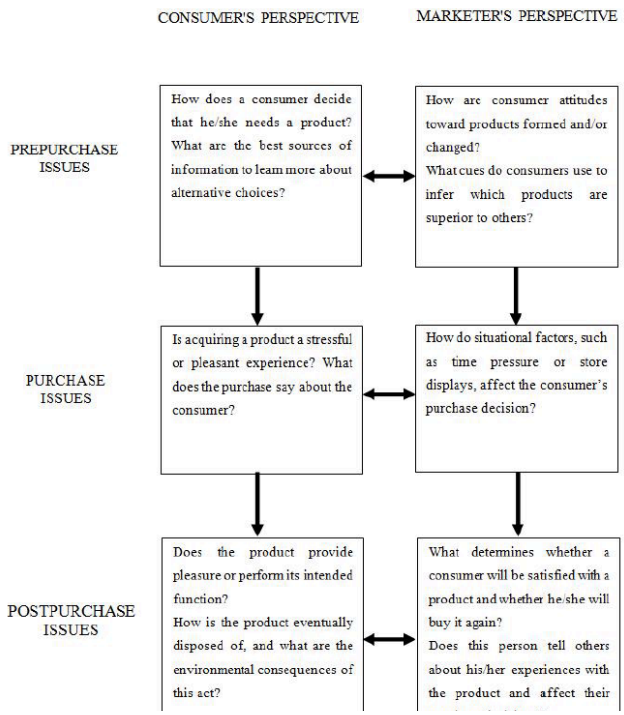

Figure 3.13: Solomon Model of Comparison Process (Solomon, 1996)

The Solomon (1996) model is highly biased against BoP decision-making processes. The model highlights the 'pleasantness' of the purchase experience and 'store displays'. These factors are not unimportant in BoP consumer behaviour, but the

model components are too shallow and too vague to incorporate the complexity of resource constraints felt in the BoP. The model assumes that purchases are not as constrained as the BoP reality presumes, and that consumers have choice. While many South African BoP consumers may have an availability of choice, many are highly constrained. To model decision-making without a clear appreciation for this constraint would not suffice for BoP decision making.

The Schiffman and Kanuk (1997) model has been reproduced multiple times since its first introduction. The model describes a three phase system of inputs, transformation and outputs. The model accounts for both internal and external influences as well as the feeding of the post-purchase evaluation back into the process phase.

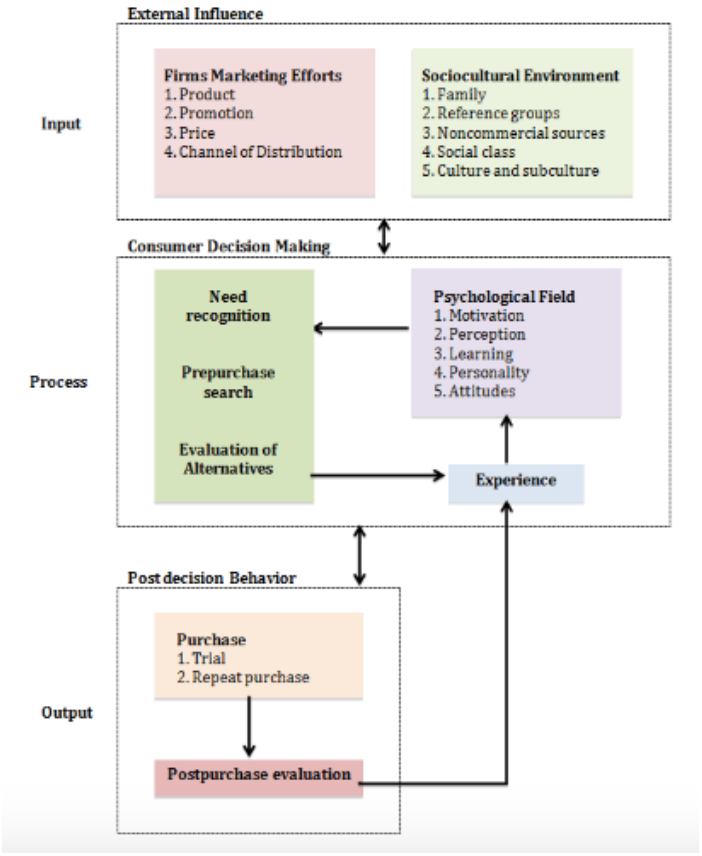

Figure 3.14: The Schiffman and Kanuk Model (Schiffman & Kanuk, 1997; 2014)

The Shiffman and Kanuk model as depicted in one of their latest books (2014) in Figure 3.14 compensates for many of the problems with older models. The influence of Howard-Sheth (1969) and stimulus-response models is noticeable. A key omission, as in so many of the other models, is the impact of situational variables on decision-

making. This factor is relevant to all consumers, but particularly to the BoP. Should a BoP household experience a short term income shock, like a contribution towards a community funeral, the decision-making for that particular month (or set of months) would be altered. The alteration in expenditure and possibly the capacity to purchase non-essentials and preferred brands would be situationally impacted, although none of the psycho-social drivers would be influenced.

Hawkins, Best and Coney (1989) developed a model that proposed consumers' lifestyle to be the key determinant in their marketplace behaviour. Once the drivers of behaviour have been considered, the prominent stages that appear in most other decision models then appear as the decision is made and then evaluated. The model has been adapted into slight variations as depicted in both Figures 3.15 and 3.16.

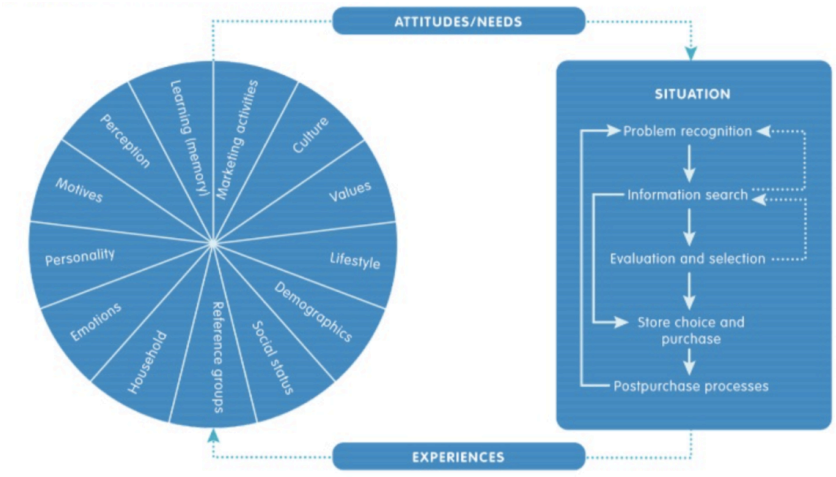

Figure 3.15: Hawkins, Best and Coney Decision Model (1989) adapted by Mpinganjira and Dos Santos (2013)

The model diagramed in Figure 3.15 was reproduced as the diagram in Figure 3.16 in Hawkins and Mothersbaugh's consumer behaviour textbook (2013). In both variations of the model, the situational component is identified as a key filter between the drivers of behaviour and the mechanics of the decision-process.

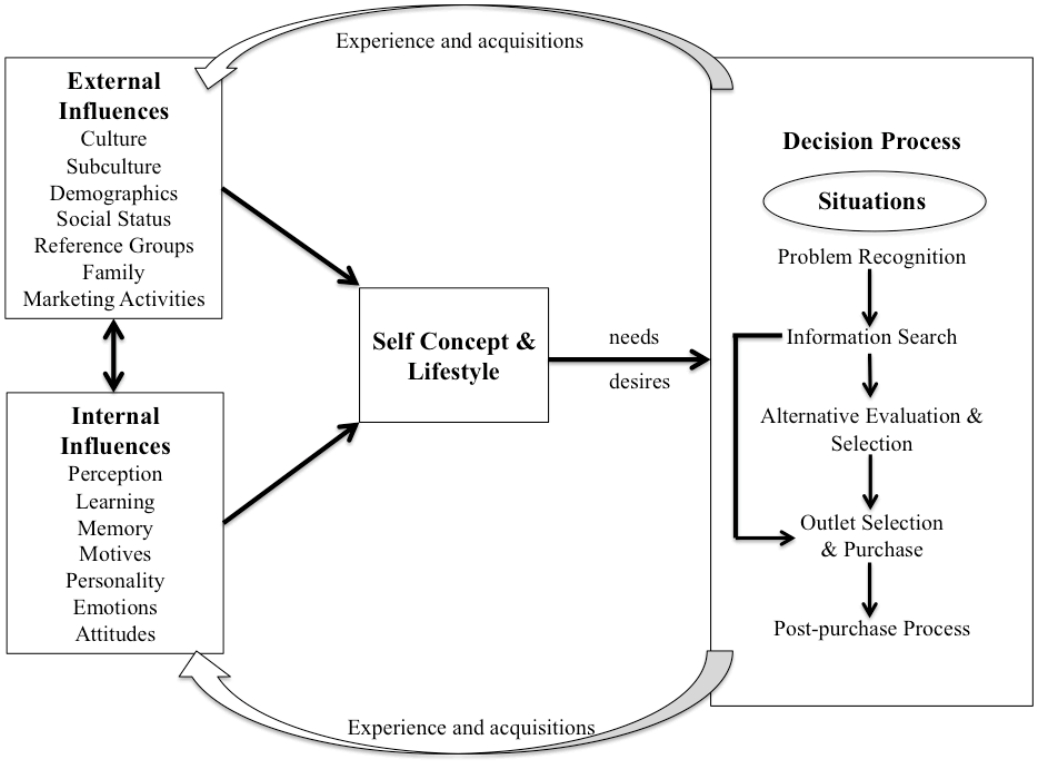

Figure 3.16: Hawkins and Mothersbaugh (2013) adaptation of the Hawkins, Best and Coney Decision Model (1989).

The model in Figure 3.16 is the best of the generic models to compensate for the characteristics of BoP consumer behaviour as outlined in Chapter Two. The next sub-section provides a brief synthesis of the discussion on each of the models in this section in light of BoP consumer behaviour.

3.3.3 Summary of decision-making models in light of BoP characteristics

Schiffman and Kanuk (2014) observed that many early theories concerning consumer behavior were based on economic theory. This assertion aligns with Erasmus (2013) and Prasad and Jha (2014) who showed how concepts like microeconomic consumer rationality were eventually infused with psychology, sociology and anthropology. All of these concepts made their way into the decision-making models discussed in this section.

Each particular model of decision-making has its own merits in the evolution of decision-making theory. Most of the theories assume a number of key steps (for example evaluation of alternatives) although different models assume different emphases (Prasad & Jha, 2014). When it was released, the Nicosia model was

criticised for not being empirically tested and because of the fact that many of the variables were not defined (Zaltman, Pinson & Angelman, 1973; Lunn, 1974). Both Gilbert (1991) and Solomon's (1996) as well as elements of Sheth-Newman-Gross (1991) are too simplistic. Conversely, Sheth (1973), Bettman (1979), Andreason (1965) and Engel-Kollat-Blackwell (1995) are too complex for many practical applications. The adapted models proposed by Schiffman and Kanuk (2014) and Hawkins, Best and Coney (1989) create a finer balance of simplicity without losing substance.

When it comes to the relevance of the models to BoP consumer behaviour, the Hawkins, Best and Coney (1989), which has been recently adapted into the Hawkins and Mothersbaugh (2013) model, is most appropriate. The needs, influences and situation of BoP consumers can all be accounted for in the model. The research component of this thesis directly impacts a marketing understanding of BoP decision-making. As discussed in Chapters Five and Six, the impact of situational variables can completely realign the internal and external drivers of choice and directly impact subjects like brand and outlet choice. The study therefore adds to the body of understanding about how consumers make decisions as presented in Chapter Six.

One of the purposes of decision-making models is to help understand repeat purchase. The concept of loyalty and customer relationship have been developed significantly in the last forty years as will be discussed in the next section. The discussion on loyalty is vital to understanding BoP decision-making and the complexity of this segment when it comes to consumer behaviour characteristics.

3.4 Consumer Loyalty

Consumer loyalty is both an attitudinal and behavioral tendency to favor one product or brand over others. Loyalty may stem from satisfaction with the product or service, its convenience or performance, or familiarity and comfort with the brand (Kotler & Armstrong, 2015). Loyalty, or repeat decisions, is a basic element implied in the more complex decision-making models. This element of the process of decision-making comes in the form of post-purchase evaluation and repeat purchase, but is not often described as loyalty in the models themselves. While a clear sub-set of many

decision-making models, the relevance to this research thesis justified a separate treatment of the subject.

3.4.1 Defining consumer loyalty

Loyalty is defined as a feeling of strong support for someone or something (Merriam-Webster, 2016). The term is used in multiple settings, and is connected to concepts like faithfulness, allegiance and devotion. In marketing, loyalty is a broad concept. At a very core level, marketers seek multiple transactions from consumers. When a consumer transacts with a specific product or brand on a regular basis, they are viewed as having a degree of loyalty.

Brand loyalty is an extensively researched topic with significant literature stretching back almost half a century (Jacoby & Kyner, 1973; Oliver, 1999; Chaudhuri & Holbrook, 2001). Jacoby and Chestnut (1978) were pivotal in shaping many of the current definitions of brand loyalty in their proposal that brand loyalty was a display of biased behaviour expressed over a period towards a specific brand out of a set of such brands (Jacoby & Chestnut, 1978; Mellens, Dekimpe & Steenkamp, 1996). While over two hundred definitions of brand loyalty exist (Knox & Walker, 2001), the American Marketing Association defines a brand as:

> *"a name, term, sign, symbol, or design, or a combination of them intended to identify the goods and services of one seller or groups of sellers and to differentiate them from those of the competition".*

Both business performance and long-term profitability have been empirically linked to brand loyalty (Reichheld, 2003; Argenti & Drunkenmiller, 2004; Salegna & Goodwin, 2005; Moisescu, 2014; Pinsona & Brosdahl, 2014). Closely related to brand loyalty is the concept of Customer Relationship Management (CRM). Managing relationships with customers is seen as a key component of building loyalty (Kotler & Armstrong, 2015).

In a similar fashion to decision-making models, loyalty has a number of permutations and theoretical models depending on the approach by various authors. Below is a sample of three well-cited models of consumer loyalty, namely the Five Dimensional Customer Commitment Scale, the Apostle Model and habitual buying. The models

show that decision and repeat-decisions (loyalty) are related, but also have distinct qualities.

The customer commitment approach to loyalty is based on the idea that customers with a higher commitment to a particular brand are also more likely to display loyalty. Earlier models of customer commitment conceptualised a one-dimensional construct (Moorman, Zaltman & Deshpandé, 1992; Ellen & Johnson, 1999). More recently, however, scholars have developed a five dimensional scale to measure customer commitment and relate it to customer loyalty (Keiningham, Frennea, Aksoy, Buoye & Mittal, 2015).

The five commitment dimensions include:

1 **Affective commitment** (reflects a psychological and emotional commitment)
2 **Normative commitment** (based on an individual's belief about his or her obligations due to relevant norms that are typically socially derived)
3 **Economic commitment** (based on cognitive appraisals of investments made in a brand and corresponds to the sacrifice dimension of calculative commitment)
4 **Forced commitment** (when consumers perceive an absence of alternatives)
5 **Habitual commitment** (context-specific and arises in settings when consumption behaviour is performed repetitively, automatically and with inertia)

The model shows that commitment may be observed nominally by certain behaviours, but that marketers should be aware of the root beneath brand commitment in order to foster deeper and sincerer loyalty (Keiningham et al., 2015).

Jones (1995) and Heskett (2002) presented a very intuitive classification of the link between satisfaction and loyalty. Customers were classified into four groups: loyalist/apostle (high satisfaction, high loyalty), defector/ terrorist (low satisfaction, low loyalty), mercenary (high satisfaction, low loyalty), and hostage (low satisfaction, high loyalty). The model is depicted on a loyalty-satisfaction axis in Figure 3.17.

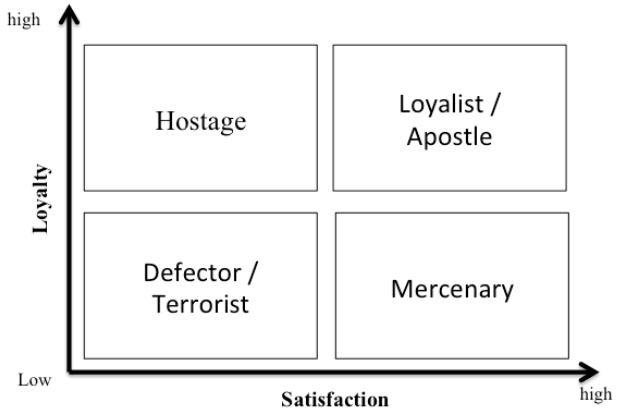

Figure 3.17: The Apostle Model (Jones, 1995)

The model is helpful in understanding that loyalty is not random and is closely connected to performance. The model, however, is reductive and does not include multiple dimensions (as perceptual maps struggle to do). More complex and measurable models are required to take the Apostle Model to a more practical level.

Habitual buying behaviour occurs when the consumer has no emotional attachment to the brand and buys the brand out of familiarity. With such low levels of conviction, this buying pattern can be broken if the availability decreases or price increases (Kotler, Armstrong, Saunders & Wong, 1996). This form of loyalty stands in contrast to brand-loyal consumers who have an emotional attachment to the brand characterised by affection, passion, and connection (Knox & Walker, 2001; Nandan, 2005; Thomson & Park, 2005; Kabiraj & Shanmugan, 2011; Pinsona & Brosdahl, 2014).

3.4.2 Measuring brand loyalty and switching behaviour

The development of a standardised measure of brand loyalty has yet to be established (Rundle-Thiele & Mackay, 2001). Some of the most widely used measures of loyalty are the Verbal Probability measure (Jacoby & Chestnut, 1978), the Brand Preference model (Guest, 1944), and the Price until Switching Measure (Pessemier, 1960). However, more recent research has seen a great diversity in brand loyalty measurement techniques (Hawkes, 1994; Rundle-Thiele & Mackay, 2001). There is a clear need for further investigation into measurement techniques of brand loyalty as

the large variation in past measures raises questions about the validity and reliability of these measures (Rundle-Thiele & Mackay, 2001).

In recent decades, attitude and behaviour have been identified as the two main foundations by which loyalty is defined (Kim, Morris & Swait, 2008; Rai & Srivastava, 2012). Both the attitudinal and behavioural elements of loyalty have been explored, and within both constructs, multiple classifications have been proposed (McMullan, 2005). While some scholars have argued the relevance of either attitudinal or behavioural measurements of loyalty, most agree that both are necessary components (Dick & Basu, 1994; Oliver, 1999; Uncles, Dowling & Hammond, 2003; Yi & Jeon, 2003; Assael, 2004; Garland & Gendall, 2004; Yang & Peterson, 2004; East, Gendall, Hammond & Lomax, 2005; Lewis & Soureli, 2006; Makanyeza, 2015). Since the nature of brand loyalty is of relevance to marketers, a number of loyalty related studies have achieved attention in the last two decades (Perkins-Munn, Aksoy, Keiningham & Estrin, 2005; Moisescu, 2014).

Behavioural loyalty measurements are not only limited to the trade-offs between brands. Among brand loyalty measures, the share-of-wallet[15] (SOW) and share-of-category-requirements [16] (SOCR) concepts have grown in approval as an operationalisation of loyalty behavior (Bowman, Farley & Schmittlein, 2000; Bowman & Narayandas, 2004; Perkins-Munn, Aksoy, Keiningham & Estrin, 2005; Keiningham, Cooil, Aksoy, Andreassen & Weiner, 2007; Kim & Lee, 2010). This kind of measure is not simply focused on individual brand performance when compared to other brands, but lays a foundation for the whole concept of loyalty as an allocation of expenditure. There is some nuance to constructs like the SOW and SOCR metrics, as definitions may also be contextualised to a particular category (Magi, 2003; Meyer-Waarden, 2007).

[15] Share-of-wallet is defined as the share of a customer's total spend across categories that is captured by a single firm (Keiningham, Aksoy, Buoye & Cooil, 2011)

[16] Share-of-category-requirements is defined as the share of a customer's spending in a particular category that is allocated to a specific brand (Keiningham, Aksoy, Perkins-Munn & Vavra, 2005). For example, if a consumer purchases toothpaste five times a year and Colgate three of those times, then Colgate satisfies a 60% (3/5) share of their category requirements.

3.4.2.1 Share of wallet (SOW)

SOW is an approach to understanding consumer behavior that shows consumers to make tradeoffs between product/service categories and not just between brands. The principle of product/service category trade-off has developed into a growing body of terminology including “share of throat” (Fahim, 2016; Priilaid, 2016), “share of day” (Ramadge, 2016) and “share of dashboard” (Ramsey, 2011) to name a few.

Marketers have, at times, struggled to create meaningful measures in spite of findings that show customer satisfaction and customer retention to be connected to the SOW concept (Perkins-Munn, Aksoy, Keiningham & Estrin 2005; Cooil, Keiningham, Aksoy & Hsu 2007; Chitturi, Raghunathan & Mahajan 2008; Kim & Lee, 2010). Keiningham et al. (2011), however, showed that despite various efforts, typical customer loyalty measurements such as customer satisfaction, purchase intention and Net Promoter Score, have displayed a poor correlation with SOW (Lariviere, Aksoy, Cooil & Keiningham, 2011). The connection between SOW and customer retention has also been studied, although some of the measures have been questioned for whether they measure true behavioural patterns (Rust, Lemon & Zeithaml, 2004; Cooil, Keiningham, Aksoy & Hsu, 2007). Obtaining useful loyalty related data has historically been difficult to access. The constructs themselves are often reliant on competitors’ data which is unlikely to be shared freely. Attempts have been made to overcome this with techniques such as list augmentation (Du, Kamakura & Mela, 2007).

3.4.2.2 Share of category requirements (SOCR)

SOCR is the percentage of a customer's requirement (brand) for a particular product within a category. SOCR has long been used as a metric of brand loyalty in the context of consumer-packaged goods (Fader & Schmittlein, 1993), and it is becoming an important metric of customer relationship strength. The metric is useful not only in determining a customer's loyalty, but in uncovering hidden potential value in a current customer set (Malthouse & Wang, 1999; Du, Kamakura & Mela, 2007).

3.4.2.3 Share of spending (SOS)

At a far more fundamental level, the analysis of share-of-spending[17] (SOS) analyses how much of a consumer's total expenditure is allocated to specific product or service categories (Keiningham, Aksoy, Perkins-Munn & Vavra, 2005). Share of spending has been used in economics, as have other loyalty related consumer economic principles such as the income effect, substitution effect and elasticity of demand. The economic theories of consumer choice and utility are also related to loyalty (McConnel, Brue & Flynn, 2009; McDowell, Thom, Frank & Barnanke, 2009. Although connected to the economics of choice, SOS is particularly relevant to low-income consumers who are constantly making trade-offs between entire product and service categories.

Bennett and Rundle-Thiele (2002) drew attention to the fact that behavioural loyalty alone was not sufficient to understand fully or predict future behaviour. The authors stated,

> *"While behavioural loyalty is the observable outcome of attitudinal loyalty (e.g., market share and sales), without a knowledge and understanding of the attitude towards the act of buying the brand, it is difficult to design marketing programmes to modify behavioural loyalty (increase brand switching to a particular brand or decrease switching from that brand). This is particularly the case in a non-stable environment with changing needs or environments. Measuring attitudinal brand loyalty can identify customers who are vulnerable in a changing environment".*

A number of attitudinal measurement scales have been proposed in order to capture attitudes towards brands and propensity to be loyal (Bennett & Rundle-Thiele, 2002; Bandyopadhyay & Martell, 2007; Kumar, 2010; Hong & Cho, 2011).

3.4.2.4 Brand switching

Brand switching is formally defined as the process in which a consumer switches from the usage of one product to another product within the same category (Van Trijp

[17] SOS is sometimes termed Share of Purchase (SOP) (Clerfeuille and Poubanne 2003). SOP itself is sometimes used interchangeably with SOCR (Lomax, et al. 1997). The definition used for this study is the share that a consumer spends on any given item or category.

& Inman, 1996). Studies have identified that the most loyal of consumers may display brand switching behaviour, and that brand loyalty may be an invalid concept (Ehrenberg, 1988; Trivedi & Morgan, 2003). Shukla (2004) found evidence to suggest that the average number of customers that companies are losing every year is increasing substantially. Companies have seen the increasing need to understand the external and internal drivers of switching behaviour (Vani, Babu & Panchanatham, 2010). The points to follow will discuss specific factors that have been identified to cause consumers to switch brands.

A study by Mazursky, LaBarbera and Aiello (1987) utilised self-perception theory to analyse consumer brand switching behaviour. The two facets for brand switching were identified as intrinsic and extrinsic motivations. Intrinsic motivations are defined as the doing of an activity for its inherent satisfaction rather than for some separable consequence (Ryan & Deci, 2000). A wide variety of intrinsic motivations for brand switching exist, as the behaviour can be the consequence of either curiosity or attribute satiation (Sheth & Raju, 1974; McAlister & Pessemier, 1982). Product past experience is another underlying reason for brand switching decisions (Inman & Zeelenberg, 2002). Mazursky et al. (1987) on the other hand state that only when the switching decision is intrinsic, will past experiences have an impact on switching behaviour. Although intrinsic motivation is clearly important, most activity is not only intrinsically motivated (Ryan & Deci, 2000). A study by Van Trijp, Hoyer and Inman (1996) identified brand switching as a key to attaining or avoiding another purchase or consumption goal (as opposed to internal rewards). This external motivation is known as an extrinsic. Extrinsic motivations refer to the performance of an activity in order to attain a desired outcome (Mazursky et al., 1987). The aforementioned study by Shukla (2004) argued that extrinsic factors motivate consumers to switch brands. This argument is supported by Kahn and Louie (1990) who found external incentives encourage temporary brand switching behaviour. Additionally, Mazursky et al. (1987) further state that individuals who face tight financial constraints are easily swayed by extrinsic motives such as sales promotions. Extrinsic motives to switch were found to be more prevalent amongst experienced consumers (Mazursky et al., 1987). Even though intrinsic and extrinsic motivations lead to the same switching behaviour, the underlying marketing implications are different.

There is a close connection between brand switching and stockpiling behaviour. Stockpiling is a purchasing activity in which an individual acquires a large accumulated supply of a good for the future (Ailawadi, Gedenk, Lutzky & Neslin, 2007). Stockpiling increases household consumptions rates, but also prevents or delays consumers from switching to competitor's brands within the marketplace (Ndubisi & Chew, 2006). A study conducted by Gupta (1988) as well as by Hong, McAfee and Nayyar (2002) found already loyal consumers more likely to stockpile when their desired brand is on promotion. According to Krishna (1994), brand switchers do not have the same desire to stockpile as loyal consumers. The reason for this difference is that they are governed by the idea that there will be another brand on promotion in the near future. In contrast, a study by Ailawadi et al. (2007) found that deal-prone consumers are more likely to stockpile. When a consumer purchases more of a product than he would have in the absence of a promotion, he is less likely to purchase a competitor's product as he is temporarily taken out of the marketplace (Ndubisi & Chew, 2006).

3.4.3 Summary of BoP decision-making and loyalty

The significance of this study lies in understanding the fluctuations of BoP household monthly expenditure. By gaining a more advanced understanding of the fluctuations, and specifically the category trade-offs, marketers will better understand the BoP brand loyalty. Karnani (2007) argues that while there is some aggregated consistency to how BoP consumers spend their income, there is also large inconsistency in the monthly purchase behaviour of BoP households. Most BoP income is spent on food, clothing, transport and housing, but SOP can be influenced by factors like urbanisation, geography, environment, socio-economics, literacy levels, culture and religion (Prahalad & Hart, 2004; Karnani, 2007).

Duvenage et al. (2010:310) agreed with Fisher (1999:2) who noted that when money becomes more scarce, "each of the food purchases is important, as no money is available for replacements". The authors also cited Alwit and Donely (1996:60) who noted that the poor are "cautious shoppers" and will change their food buying habits in an attempt to economise. The cost of food would therefore take precedence over issues of taste, cultural acceptability and healthy eating as found by the Joseph Rowntree Foundation (1994). These findings, while possibly true in the context of the

United Kingdom, are not easily transposed to an emerging market setting. Duvenhage et al. (2010) noted that while affluent South Africans seek "convenience, health and pleasure", BoP consumers often struggle with basic food security and are restricted by the availability of an adequate quantity of affordable food to satisfy their nutritional requirements.

Hill and Stephens (1997) provided a model of impoverished consumer behavior that identified three main areas of research interest. The areas were exchange restrictions, consequences of disadvantage and strategies for coping with disadvantage. Hamilton and Catterall (2005) advanced the concepts presented by Hill and Stephens, but also noted that much more research was required in order to understand identity, coping strategies and consumer behaviour better in the BoP markets.

A study by Chikweche, Stanton and Fletcher (2012) identified how economic conditions led BoP families towards three types of purchasing behavior. This purchasing behavior included buying products: when they are needed; when they were available; or when consumers could afford them. Since affordability and availability are inconsistent, loyalty becomes hard to discern in a meaningful way. The study by Chikweche et al. (2012) also highlighted the influence of household members in the purchase decision process. This too adds complexity in deciding which members of the household are required to participate in research.

Trade-offs between essential goods and discretionary purchases have been recorded in some of the recent BoP research. Often, discretionary purchases correlate to irregular occurrences like the festive season and can be funded through borrowing (Subrahmanyan & Gomez-Arias, 2008). Income inconsistency also plays a large role in consumer choice and trade-off. During leaner months, share of household expenditure may be different than in months of average income. Forte (2015) describes how all consumers tend to spread their budget across multiple categories. In today's highly competitive marketplace, rarely will one company dominate a consumer's entire category (cited examples include telecoms, insurance and even daily coffee spend). Among firms targeting BoP consumers, the issues are not just intra-category competition, but inter-category competition. On a particular month, a low-income consumer may forgo eating breakfast in order to buy a pair of high

quality jeans. Consumers may be influenced by the economics of a particular day, let alone a month's budget and may complete smaller frequent purchases in some months and less frequent but larger purchases on other months (D'Andrea, Stengel & Goebel-Krstelj, 2004).

The impact of socio-economic constraints on brand loyalty has also been observed in some other noteworthy studies. Kanwar and Pagiavlas (1992) showed that low-income consumers are often more brand loyal as the perceived risk of making a purchase mistake drives them towards the quality assurance of a brand. Prahalad and Hart (2004) later confirmed this finding. Subrahmanyan and Gomez-Arias (2008), however, showed that this loyalty is severely tested as prices rise. Simester et al. (2009) also observed brand switching as commonplace among BoP consumers as the value equation creates a constant pressure on brands (see also Barki & Parente, 2006).

Brand consciousness is also connected to risk aversion for BoP consumers. The reliability attached to better quality of branded (versus unbranded) products is key factor in choice (Nidumolu, Prahalad & Rangaswami, 2009). This risk aversion must be understood in terms of the often-functional nature of BoP brand loyalty (Barki & Parente, 2006; Deep, 2010). Both Barki and Parente (2006) as well as Jacobs and Smit (2010) observed that BoP consumers spend money on some luxury items as a way of "expressing their desire for better products and their openness for branding". This, however, would occur after purchasing basic necessities (Nyanga, 2015). Chip et al. (2012:28) summarise the tension in BoP brand loyalty literature in the following quote:

> *"...two competing hypotheses are apparent: on the one hand, because of the low income of consumers at the BoP, they might be extremely risk-adverse. Therefore, having found a brand with an acceptable price-performance value proposition, these consumers are likely to be more brand loyal than other consumers. On the other hand, looking for special deals, these consumers might be more receptive to temporary price-performance improvements in the form of sales promotions such as discounts, coupons, buy-one-get-one offers, and so on, making BoP consumers less likely to be brand loyal".*

Azmat and Samaratunge (2013:385) described BoP consumers as often being "blindly loyal" owing to a lack of information and issues of convenience. Gounaris & Stathakopoulos (2004) wrote of both inertia loyalty and covetous loyalty being prevalent in the BoP market. Limited access to certain forms of media, certain brands and low literacy rates all impact on marketers attempting to target BoP consumers (Subrahmanyan & Gomez-Arias, 2008).

Companies have begun to adapt their marketing mix to suit the BoP market. Some research suggests that the consumers who are most responsive to promotions are equally dispersed amongst all income groups. Other research, however, indicates that BoP consumers are more responsive (Blattberg, Briesch & Fox, 1995). A major issue with creating BoP targeted inputs like sales promotions is low levels of trust with new brands (Simanis, 2012). Sales promotions allowing BoP consumers to sample new products are therefore crucial due to such steep learning curves (Simanis, 2012). According to Kwon and Kwon (2007), type of sales promotion affects purchasing behaviour. Collecting coupons, for example, takes time and will only be done if the perceived incentive outweighs the opportunity cost.

A study by Kumar and Singh (2008) identified income as the most influential determinate of BoP brand choice. BoP consumers look for value, but often not at the expense of an unknown brand (Kumar & Singh, 2008). The authors also state that as income increases, so does preference towards specific brands. Financial limitations also directly impact the willingness to explore new brands (Raju, 1992).

In the next section, South African BoP decision making research will be explored before a final synthesis and evaluation of the literature in Chapter Three.

3.5 BoP decision-making research in South Africa

The body of literature on BoP decision making in South Africa is slowly growing. While not comprehensive, some key findings have been made on BoP specific phenomena in South Africa. The research crosses a number of marketing disciplines and some key findings are outlined in this section below.

BoP consumers worldwide actively seek out price reductions (McNeill, Fam & Chung, 2008), and the South African market is no different. South African BoP consumers are also more likely to purchase their first choices in the beginning of the month, but switch in the middle to end of the month as money runs out (Durham, 2013; Simpson & Lappeman, 2017). Price reductions are, therefore an effective way of encouraging trial and switching behaviour as well as being a key driver of loyalty (Durham, 2013).

South African BoP consumers are very community-orientated and often practise collectivism as seen in Chapter Two. This behaviour displays itself in strong WOM effects (Chipp, Corder & Kapelianis, 2012; Simpson & Lappeman, 2017). South African BoP consumers are responsive to marketing promotions since a significant proportion travel to the nearest supermarket once a month to purchase their groceries in bulk (D'Haese & Van Huylenbroeck, 2005). This phenomenon makes consumers responsive and receptive to sales promotions and possibly stockpiling, as they intend on buying large amounts of goods in order to prevent extra travel costs (Variawa, 2010; Simpson & Lappeman, 2017). When consumers bulk shop at the beginning of the month, there is extra cash flow when compared to month end (Anderson, 2006). As a result of the extra cash, BoP consumers may buy products on promotion at the start of the month, even if they are not required for immediate use (Skenjana, 2013).

According to Leibtag and Lynch (2007), coupons are popular in the BoP market since they help persuade price-sensitive, low-income consumers to experiment with new products and brands. Coupons are easily available and redeemable at all of South Africa's main low-cost retailers including Shoprite and Checkers. Nielsen recorded South Africa as distributing approximately 100 million coupons, with an 11% redemption rate (Foxall, 2014). In South Africa 93% of the BoP owns a mobile phone and therefore many of consumers have started to use digital coupons (Mack, 2012). According to Durham (2013), the ratio of visits by South African BoP consumers to informal retailers compared to formal retailers is five to one. A challenge with informal retailers is that they offer a limited choice of brands and as a result consumers brand switch (Viegas, 2013).

3.6 Synthesis and evaluation of BoP decision-making literature

Consumer decision-making is a marketing sub-theme that had its roots in the history of economic and psychosocial thought. The development of multiple models of decision making in attempts to better understand consumer behaviour leave the researcher and practitioner with many questions. This section will underline key ideas synthesised from the literature that relate directly to the research problem of this thesis. In addition, gaps in the literature will be underscored to highlight further the significance of the study.

3.6.1 Differentiation of BoP decision-making

While the debate over whether BoP theory is a complete subcategory of consumer behaviour or not has been left unanswered by Krämer (2015) and Herendorf (forthcoming), the decision-making models cited in the aforementioned literature leave questions about how permanent resource constrains tangibly influence decision-making. An example is the use of 'situation' as a pre-curser for need recognition in Hawkins and Mothersbaugh (2013) which is only implied by Schiffman and Kanuk (2014) and not mentioned at all by Middleton (1994) and Gilbert (1991). Global consumer behaviour textbooks mention situational variables like atmospherics[18] and momentary conditions like fatigue, but for households surviving on a limited budget the situational variables are potentially far more significant than to what most current models give congnisance.

[18] Atmospherics is the manipulation of physical retail environments to create a specific mood response in shoppers (Hawkins & Mothersbaugh, 2013).

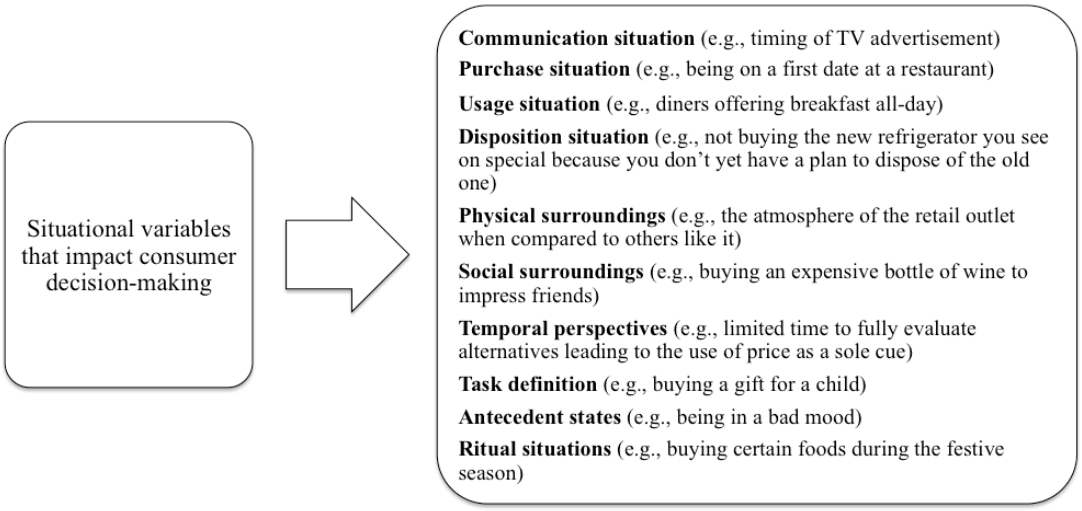

Figure 3.18: A summary of all 'situational variables' mentioned by Hawkins and Mothersbaugh (2013).

Figure 3.18 is a summary of all 'situational variables' mentioned by Hawkins and Mothersbaugh (2013). While most other internal and externl drivers of behaviour would transcend socio-economics, situation is a possible blindspot when using traditional decision-making models to understand BoP consumers.

3.6.2 The need for a deeper understanding of BoP loyalty

As described in the literature, marketers have multiple ways to measure consumer loyalty. Whether a theoretical model or loyalty metric, the understanding of consumer loyalty for BoP consumers is mainly theoretical. The proposition that BoP consumers are brand loyal (because they cannot afford to make a mistake) is well cited (D'Andrea et al., 2004; Prahalad & Hart, 2004; Rajagopal, 2009; Rahman et al., 2013) A number of BoP loyalty studies have, however, focused on brand loyalty within a specific product or service category[19] (Duvenage, Schonfeldt & Kruger, 2010; Makanyeza, 2015). This limited window into the lives of BoP consumers does not account for the multiple trade-offs that limited resources demands of low-income households. A deeper look at general consumption strategies of BoP consumers has, therefore, been called for by researchers (Hamilton & Catterall, 2005; Makanyeza, 2015). Specifically pertaining to the research question in this thesis is the fact that there is no literature to observe directly and model category trade-offs (loyalty).

[19] Obtaining mixed data from multiple categories has been a traditional problem for SOW type studies. This has made study generalisability harder to ascertain (Meyer-Waarden, 2007).

There is virtually no literature on the consumer behaviour of switching categories in marketing. Fan et al. (2011) identified the concept in light of seller behaviour, but there is a clear gap in the existing literature in general and especially in BoP literature where it would be highly relevant. Introducing more trade-off theory into the BoP loyalty concept would greatly improve the modeling and understanding of behaviour. A deeper understanding of Share-of-Spending will prevent generalisations that are so easy to make in an under-researched market (Simpson & Lappeman, 2017).

3.6.3 A need for new approaches to researching BoP consumer behaviour

Chikweche and Fletcher (2011; 2012) raised the issue of BoP initiatives needing a 'bottom-up' approach by understanding the local conditions. The authors mentioned that a better understanding of the drivers of consumer engagement is required. Similarly, since there is no established model of category trade-off among BoP households, the nature of loyalty and poor household engagement calls for the use of more flexible and in-depth research methods.

Nailer et al. (2015:855) highlighted the need for a shift in research strategy when observing emerging markets. Their case is stated in the following words,

> *"...market research in emerging markets that relies too heavily on quantitative methodologies has considerable limitations. For this reason, there has been an increasing realisation that qualitative methods, emphasising data richness and a deep understanding of consumers 'why' as well as 'what' and 'how much' are a critical component of research in emerging markets".*

The authors argue that in order to understanding emerging market consumer behaviour thoroughly, a set of skills akin to those of an anthropologist are required (Nailer, Stening & Zhang, 2015).

From a sampling perspective, research on phenomena like share-of-spending and share-of-category-requirement necessitates multi-brand data. This data is not always easy to obtain since competitors are rarely willing to share information with one other (Keiningham et al., 2007). As the body of literature on BoP consumer behaviour is growing steadily, transposing research methodologies from studies done with wealthy

segments (and countries) needs to be balanced with unique approaches to BoP consumers.

3.7 Chapter summary

This chapter provides a literary framework by which to understand BoP decision-making and loyalty based on existing literature. The chapter begins with a brief history of decision-making theory from the early days of microeconomics and psychology right through to more contemporary theories that have built on the existing scholarship. The chapter then moves onto marketing-related models that focus on consumer decision-making. The chapter discusses each of the twelve major decision-making models cited in marketing literature. The summary of the models shows that there is an evolution of models as each theory is able to build on the scholarship that has preceded it. The summary also shows that models have not been devised with an emphasis on constrained resources (an attribute of most people on earth). The chapter then moves on to loyalty and switching behaviour as a function of decision-making. The analysis of loyalty then funnels down to BoP loyalty and decision-making. A key observation here is the lack of BoP loyalty related studies. The chapter ends with a synthesis of the literature and the observation that better models of BoP decision-making are required in order to represent the realities of a resource-constrained life. The understanding of consumer loyalty at the BoP is therefore in question and in need of far more research.

In the next chapter, the research methodology for this study is discussed in detail. Building on the framework outlined in Chapter One's methodology section, the chapter will unpack each of the various methodological components and end with a bridge to Chapter Five's findings section.

Chapter Four

Research Methodology

4.1 Introduction

The previous chapter presented a literature survey of decision-making, and closed by connecting the decision-making theme with the chapter two's BoP theory. In this chapter, the focus is to present a systematic discussion of the methodology used in executing this investigation. Research methodology includes the techniques and methods implemented to realise the objectives of a particular study (Lehaney & Vinten, 1994). Research design has developed significantly in the last few decades, and the choice of technique and method depends on the paradigm or context of the research (Fellows & Lui, 2015). The chapter is structured around five main topics as outlined in the points below.

The chapter layout first includes a discussion of the philosophical considerations underpinning the choice of methodology and the overarching rationale for the methodological choices are amplified. The discussion juxtaposes the positivist and interpretivist views, and places this research into its broad epistemological context. Second, the chapter narrows down the discussion into the research approach using both qualitative and quantitative strategies. The chapter also describes the use of a panel of financial diaries as the primary form of fieldwork. The use of qualitative data to assist in the interpretation process is described as well as the use of household data as opposed to individual data. Third, the research design details the use of both the panel data and more specifically the financial diaries. The section also outlines the use of qualitative analysis to add a qualitative layer to the data. Fourth, the sampling methodology is described. The sampling criteria discussed include the target population, the sampling frame, sampling method and the sample size. At each point, the rationale of the sampling decisions is defended, and the limitations explained. Fifth, the data collection is described with an emphasis on the fieldwork process. The fieldwork team structure is explained as well as the approach to training and monitoring the fieldworkers. Steps towards the maintenance of data quality are also explained. When describing the data analysis, two methods are explained for both the

qualitative and quantitative data. The section shows how the data was approached systematically in order to drive the study towards interpretable results by assimilating the financial diary and qualitative household data. The digital tool STATA™ was used and then utilised to analyse the data and produce the core findings that were then interpreted. Finally, the chapter closes with a summary before moving on to Chapter Five that details the findings.

4.2 Research philosophy

A research philosophy is a belief about the way in which data about a phenomenon should be gathered, analysed and used. Whether acknowledged or not, epistemological orientations will determine methodological approaches and shape any given research process (Yeganeh, Su & Chrysostome, 2004). The need to expand on the philosophy of this research has two primary rationales. First, as studies on low-income consumer behaviour are far outweighed by studies in higher income categories, the field is far less understood. Secondly, low income consumer behaviour is known to be different from that in the middle to higher income categories (Prahalad & Hart , 2004, Southall, 2016). The tension between the epistemology (what is known to be true) and the doxology (what is believed to be true) is therefore nuanced when it comes to the low-income consumer.

The purpose of science has been described as the process of transforming things believed into things known (i.e., doxa to episteme). Within the Western tradition of scientific enquiry, there have developed two major research philosophies. The two philosophies are the positivist (sometimes called scientific) and interpretivist (also known as anti- positivist) (Galliers, 1991; Mkansi & Acheampong, 2012). While the relevance of an over-elaborated debate on research philosophy has been well challenged by Mkansi and Acheampong (2012), a few relevant points have been discussed below.

4.2.1 Positivism versus interpretivism

Positivists believe that reality is stable and can be observed and described from an objective viewpoint (Levin, 1988) whereas interpretivism contends that only through the subjective interpretation of and intervention in reality can that reality be fully

understood (Levin, 1988). Positivists view the world as external (to the researcher), and reality as singular and objective regardless of the researcher's belief or perspective, while the interpretivist views reality as multiple and relative (Hudson & Ozanne, 1988). The extreme side of a purely positivist approach presupposes that inquiry must be done without interference with the phenomena of study. The concept requires that phenomena be isolated and observations repeated. The approach also requires the researcher to maintain a level of detachment from the research participants. The reductionist challenge is that a positivist approach often involves too much manipulation of variables to isolate a single independent variable in order to identify relationships between elements. As debated by Hirschheim as far back as 1985, there are questions over whether human behaviour is suitably measured in such a way (Hirschheim, 1985). This criticism was later supported by Alavi and Carlson (1992) who agree that social sciences should be treated differently to physical and natural sciences. The difficulties in combining genuine phenomena of interest with accepted scientific enquiry had left a number of issues under-researched (Hirschheim & Klein, 2003).

Interpretivism contends that reality can be understood only through intervention and subjective interpretation. The study of phenomena in their natural environment is key to the interpretivist philosophy. Scientists must also freely acknowledge that they cannot avoid affecting the phenomena of their research. Interpretivists admit that there may be many interpretations of reality, but also hold that they themselves form part of the knowledge that they pursue (Remenyi & Williams, 1998). This study draws from both approaches, as explained in the following section.

4.2.2 An argument to use a middle-ground approach

Both the positivist and interpretivist philosophies have a long history reaching back to Classical Greek times (Hirschheim, 1985). A natural conflict between philosophies also exists when comparing the nature of natural science research and social science research (Arbnor & Bjerke 1997). When, for example, Yeganeh et al. (2004:68) discuss the methodological issues in cross-cultural research, they state that,

> "*A review of the literature shows that most of the cultural/organizational research is based on a realist perspective and adopts a positivistic approach (e.g. Hofstede, 1980). However, the extent to which positivistic approach can*

be used to examine a complex concept such as culture has been questioned by many researchers".

Yeganeh et al. (2004) also concluded that understanding people cannot easily be reduced to static variables and the pragmatic approach was more in line with social studies research.

This study on low-income consumer behaviour sought to answer the research question with both quantitative and qualitative approaches. The research observed a number of objective quantitative facts (through a later-described panel study), but also explained phenomena qualitatively by seeking appropriate data from the sample not just to observe, but to explain the findings. In doing so, the research held to the notion that research methodologies should be appropriate for generating reliable new knowledge, and that no one methodology is universally appropriate (Benbasat, Goldstein & Mead, 1987; Kaplan & Duchon, 1988; Galliers, 1991; Pervan, 1994).

4.3 Research design

Research designs are typically either exploratory, descriptive or causal. Each of these designs differ in terms of purpose, questions, methodology and the precision of the hypotheses formed (Tustin et al, 2005; Malhotra, 2010). In the case of a study where there is little prior knowledge on which to build, exploratory design is typically used (Harrison & Reilly, 2011; Cairns, De Andrrade & Landon, 2016). The analysis of product category expenditure trade-off among BoP South African households has no peer-reviewed published research (See Section 1.4.1). The lack of base knowledge on expenditure category trade-off among BoP consumers meant that an exploratory research design was appropriate as used in marketing studies with a similar void in theoretical framework (Alam, 2002; Rancati, Gordini, & Capatina, 2016; Shree, Gupta, & Sagar, 2017). Some existing BoP studies have similarly employed exploratory designs due to an insufficient theoretical framework for the phenomenon of interest (London & Hart, 2004; Barki & Parnete, 2006). The research methods used in exploratory studies are highly flexible and generally qualitative. For this study, however, an element of descriptive data as present through the financial diary methodology (Tustin et al, 2005; Malhotra, 2010).

4.4 Research methodology

The nature of exploratory research allows for a combination of both qualitative and quantitative data collection methodologies (Malhotra, 2010). A longitudinal mixed method approach was used to generate the finding of the study. A mixed method approach is a methodology for conducting research that involves collecting, analysing, and integrating (or mixing) quantitative and qualitative data in a single study or a longitudinal program of inquiry (Creswell, 2014).

The differences between quantitative and qualitative research have long been discussed, and their merits and demerits juxtaposed. In the last decade, there has been a trend to view them more as complementary rather than as competing (Onwuegbuzie & Leech, 2005) thereby overcoming what has been termed the "incompatibility thesis" (Howe 1992:10). According to Onwuegbuzi and Leech (2005), there are far more similarities between quantitative and qualitative approaches than are often recognised. Both methodologies use observation to address certain research propositions. Both methodologies describe data, and have a series of safeguards to avoid confirmation bias. Purists in both the quantitative and qualitative camps have had their assumptions challenged by the notion that quantitative methods are not necessarily positivist, nor are qualitative techniques necessarily interpretivist (Daft, 1983; Miller & Fredericks, 1991). In addition, purists in both camps have also tended to focus on the differences between both approaches rather than on the similarities. The differences cited range from ontology, epistemology and axiology to rhetoric, logic, generalisations and causal linkages (Johnson & Onwuegbuzie, 2004; Ngulube, 2016).

Nailer et al (2015) specifically identified qualitative research as a key tool for emerging market research. Nailer et al (2015) stated that quantitative research alone is often not sufficient, and that ethnography often produces better results than statistics in BoP dominated markets (Nailer et al, 2015). The field of mixed methods research is rapidly developing and is not nearly as established as straight qualitative or quantitative methods. In particular, because the identification and use of theory that addresses both the qualitative and quantitative components of a study is complicated,

the use of theoretical frameworks is yet to be resolved in mixed method research (Ngulube, Mathiapa & Gumbo, 2015). Despite the need to grow the conceptualisation of mixed methods research around existing theory, well recognised marketing journals have published mixed methods research (Harrison, 2013; Coviello, 2015; Krafft et al, 2015; Cruz-Cárdenas et al, 2016). Consequently, mixed methods were best suited to this study as it sought to not only measure the phenomenon of interest (monthly category expenditure), but also to provide a qualitative explanation.

Two research methods were used in this design, namely self-complete questionairres and interviews. This method resulted in three forms of data collection. First, a once-off baseline questionnaire was used to gather initial household data. The once-off questionnaire was also used to ensure that the household fulfilled the quote identified in the sample design. Second, a panel of self-complete financial diary questionnaires was used to capture the monthly income and expenditure of the sample households. Third, a panel of interviews was conducted with the households.

Although this study is focused on observing a monthly pattern of income and expenditure, the baseline of each household was required. This baseline questionnaire was completed with all participating households, and contained data such as how many people lived in the household, and what were the most recent income and expenditure amounts (and sources). A copy of the baseline questionnaire can be found in Appendix 1. The baseline data was cross sectional descriptive, and many of the questions in the questionnaire were not repeated when the same households had data collected in the self-complete financial diary component.

The monthly questionnaires and interviews comprised the main sources of data in this study. The baseline questionnaire and self-complete financial diaries comprised the quantitative component, with the in-depth interviews comprising the qualitative component. According to the panel typology proposed by Kent (1993), the study is a consumer (household) panel of sample South African low-income households. The use of the above three instrument methodology has precedent in a multi-country study done by Collins et al. (2009) who used both financial diaries and qualitative enquiry in order to observe patterns of financial behaviour in South Africa, Bangladesh and India.

Addressing the collective research objectives (Section 1.4) involved both quantitative and qualitative longitudinal data collection. Among the benefits of time-series or longitudinal measurements is the prevention of false conclusions (Dillon et al, 1993). The researcher is also able to examine changes in response / behaviour that would not be possible using cross sectional research (Zikmund & Babin, 2010). According to Kent (1993), financial diaries are a robust form of research methodology and have been used in a number of recent studies (Alia, Ashta & Ratsimalahelo, 2015; Dattasharma, Kamath & Ramanathan, 2015). The approach is particularly suitable for low-income household expenditure about which less is known (Rutherford, 2001; Ruthven, 2002). According to Taylor and Lynch (2016), financial diaries are a key methodology when researching consumer finance. To quote Collins et al. (2009:187),

> *"…finance is the relationship between time and money, and to understand it fully, time and money must be observed together."*

Triangulation of the data was done through both the use of mixed methods, the sampling and analysis as discussed in detail in Section 4.9.

4.4.1 Research method 1: Financial diaries

According to Taylor and Lynch (2016), a standard approach to using financial diary questionairres is to design a self-complete questionnaire appropriate to the research objectives. Participants then use the questionnaire to keep a record of their income and expenditure for a given period (in this case a month). The questionnaire is then collected (for capture and analysis) and the next months self-complete questionnaire is started.

Although robust and accepted by the research community for many years[20], financial diaries do not have as strong a tradition as standard research questionnaires and really only became popular in the 1990s (Kent, 1993; Collins et al., 2009; Taylor & Lynch, 2016). Part of the reason for the lack of use is that diaries are costly to administer and rely on strong participation from both the researcher and household. Diaries have standard completion accuracy issues, and are subject to omissions (Collins et al, 2009;

[20] The use of diary methodology can be traced back to the early 1900s (Johnson & Bytheway, 2001; Gershuny, 2011)

Alia et al, 2015). The cost means that diary samples are often smaller and used for exploratory purposes (Taylor & Lynch, 2016). Timing and reporting bias are also a challenge, although other forms of data collection are not exempt from these biases too (Collins et al, 2009; Taylor & Lynch, 2016). Finally, it has been observed that participants are more likely to under-report expenditure when assessment is more regular. This under-reporting was observed in the case of StatsSA using a weekly financial diary methodology to assess a survey samples income and expenditure over a single month (Finn, Leibbrandt & Oosthuizen, 2014).

While gathering the baseline data utilised a cross sectional survey, the monthly self-complete financial diaries followed a longitudinal survey. A longitudinal survey involves the questioning of an identical participant at multiple points in time over a set period of waves (Dillon, Madden & Firtle, 1993). Longitudinal studies are able to measure changes in behaviour that are not possible with purely cross-sectional studies (Zikmund & Babin, 2010). Panels tend to be used for quantitative research (Tustin, Ligthelm, Martins & Wyk, 2005), and this study proposed a four-wave longitudinal panel of one month intervals.

For this study, the fieldworkers filled in the household ID on the front of the financial diary questionnaire and then left it with the household representative. The household representative was reminded at each wave about the expectations with regard to financial diary completion. At the start of a new month, the financial diaries were collected for data capture, and the new diary was left with the household. A copy of a self-complete financial diary questionnaire[21] can be found in Appendix 2, and more details of the financial diary design can be found in Section 4.6 where the measurement instruments are discussed.

[21] For the purposes of readability henceforth, the term 'self-complete financial diary questionnaire' will be replaced with the term 'financial diary'

4.4.2 Research method 2: In-depth interviews

In-depth personal interviews[22] are a qualitative data collection tool that typically involve a one-on-one data collection in the form of questions and responses. The interview generally follows an outline which aligns to the research objective. The specific content and time of an interview will vary between participants (Tustin et al, 2005). In addition to the financial diaries, the interview data provided a means to understand the results from the financial diaries in a more meaningful way by exploring attitudes, circumstances and feelings behind shifts in income and expenditure.

The interviews for this study were conducted with the same household represeantative that was responsible for the financial diary completion. As was the case with the financial diaries, the interviews were also conducted through a panel of repeated interviews. The interviews were exploratory, and involved asking multiple open-ended questions using a laddering technique. Malhotra (2010:33) has defined this technique as a "line of questioning [that] proceeds from product characteristics to user characteristics." In the case of answering the research objectives, participants were asked general questions about how the month had been for the household, and whether there was anything interesting that had happened. Once a phenomoneon was mentioned (for example a large unexpected expense), the technique allowed for probing of the financial impact of the phenomenon. This technique enabled the identification of psychological and emotional reasons that affect any particular decision (Malhotra, 2010). The repeat visits from the same interviewer provided a foundation of trust to be built between participant and fieldworker. As interviews can be time-consuming, participating households were not always available at the same time as financial diary administrators. Independent interview times were therefore scheduled with household participants. The interviews were conducted in the home language of the participants and recorded. The recordings were then sent off for translation into English and transcribing (Section 4.8).

Lariviere et al. (2011:60) explain that some studies purely identify phenomena while others are able to take the research a step further and answer the question "why?."

[22] For the purposes of readability henceforth, the term 'In-depth personal interviews' will be replaced with the term 'interviews'.

The qualitative findings were able to provide insight into the antecedents underlying the trade-off behaviour seen in the financial diaries. From the perspective of research among BoP South Africans, qualitative methodology appears particularly suitable for the study of consumer behaviour due to its capacity to explore subtle nuances of complex social phenomena (Holbrook & O'Shaughnessy, 1988, Nailer et al, 2015). The qualitative component to the study was beneficial, although the nature of qualitative research is not without challenges. Interviewer bias (Malhotra, 2010; Belk et al, 2013; Aguirre & Hyman, 2016; Roulston & Martinez, 2016), language translation and low levels of literacy can compound the complexity of collection and analysis (Egan, 2017; Simpson, 2017). Each of these issues was considered when designing the measurement instruments and data collection (section 4.6 and section 4.7). In the next section, the target population and sample design is discussed.

4.5 Target population and sample design

In this section, each element of the sampling process is explained. To increase the generalisability of the study, multiple regions of South Africa were targeted. The section below details the broad target population, sampling frame and sampling approach. The site selection is explained before a discussion on household participation and sample size.

4.5.1 Target population

A target population is the complete collection of individuals or objects to which researchers are interested in generalising their conclusions (Malhotra, 2010). In order to choose a specific sample for the study, the target population was first defined. Kolk et al. (2013) assert that after analysing a decade of BoP literature, researchers need to make their own definition of BoP clear and that global definitions do not account for local conditions. This study used the benchmark of households that earn less than R6000 per month (See Section 1.4.2 and Section 2.10.1). Since approximately 70% of South Africa's 55.6 million people fit the abovementioned criteria (approximately 10.5 million BoP households), the target population includes most South African Households (Simpson, 2017).

4.5.1.1 Using household versus individual data

The use of household-level analysis was chosen over individual-level analysis (the other alternative) for a number of reasons. A key advantage of an individual level analysis is that it allows the researcher to investigate issues of income recipiency and to better understand labour markets. Drawbacks, however, include the fact that it excludes children who comprise almost half the population (Leibbrandt & Levinsohn 2014). Because this research is aimed at better understanding household consumer behaviour, a household-level approach has been selected. This choice is in line with other national surveys like, for example, those at NIDS, which collect both household and individual level data.[23] StatsSA's General Household Survey (StatsSA, 2015) also uses the analysis of household data. In the study, StatsSA (2015:79) defines a household as a group of persons who live together and provide themselves jointly. Joint household living includes the shared use of food and other essentials for living. The general household definition also includes a single person who lives alone. In the next sub-section, the sampling frame is discussed.

4.5.1.2 Sampling frame

With over 10.5 million households earning less than R6000 per month, an accurate sampling frame does not exist. Budgetary considerations allowed a non-probability sample from four sites, and a total of eighty households. A non-probability approach means that there is no way of determining exactly what the chance is of selecting any particular participant in the sample frame. Since a sample frame does not exist for the target population, each member of the target population does not have a known or equal chance of being selected for inclusion in the research (Malhotra, 2010). While not readily projectable to an entire population, this approach does not mean that results are inaccurate, nor inferior to probability samples (Dillon, Madden & Firtle, 1993). As there exists no sampling framework to draw a probability sample for this study, a non-probability sampling technique had to be used. The next section explains the sample design followed.

[23] NIDS does a selection of households that represents the South African population for their surveys. When NIDS was released to the public, the information was split into two separate datasets. NIDS released a Household Roster dataset (containing an inventory of the individuals in the household) and a Household Questionnaire dataset (containing information about the entire household such as total household food expenditure) (NIDS, 2016).

4.5.2 Sample design

Due to the unavailability of a sampling framework, a non-probability sampling technique had to be selected for this study. Non-probability sampling is defined as a sampling method that relies on the discretion of the researcher. In this technique, the degree of sampling error cannot be determined (Tustin et al, 2005, Malhotra, 2010). Non-probability sampling has a robust history in marketing research and, despite its limitations, has been used in many studies due to its time and cost benefits. Researchers also note that when a sample frame is not availiable and research is exploratory, non-probability sampling is justified (Schillewaert, Langerak, & Duhamel, 1998; Tustin et al., 2005; Baket et al., 2013; Ortinau, 2016). In South Africa and other emerging economies, research is often constrained by lack of BoP population data through which to create accurate sample frames (Scott & Vigar-Ellis, 2014; Rensburg & Botha, 2014; Ijabadeniyi, Govender & Veerasamy, 2015; Nailer et al., 2015; Cant & Wild, 2016). However, to increase the generalisability of the findings, quota sampling was used (De Rada & Martin, 2014; Babin & Zikmund, 2015). With quota sampling, a sample is chosen on the basis that they satisfy a certain pre-defined criteria (or quota). The researcher is free to select which participants to include in the sample as long as they qualify on the pre-determined criteria (Tustin et al, 2005, Babin & Zikmund, 2015). By pre-selecting criteria that closely resembles the population of interest, the quota provides an increase to the generalisability of the sample (Tustin et al, 2005).

The quota identified for this study were aligned with the South African BoP definition of households selected for this study (described in Section 1.1). A geographic component was also included to increase generalisability. The chosen criteria :

- **Household Income**. Households that receive a collective monthly income of less than R6000. While there was a chance that household income may exceed the R6000 quota threshold on certain months, the average over all waves needed to be below that mark.
- **Geographic Area**. Including a geographic spread in the quota sample areas has the capacity to improve generalisability as observed in a number of South African multi-provice studies (Lekhanya, 2014; Munyewende, Rispel &

Chirwa, 2014; Littlewood & Holt, 2015; Siziba, Jerling, Hanekom & Wentzel-Viljoen, 2015; Vannoorenberghe & Voeten, 2016). The spread between provinces as well as suburbs within the selected metropolitan areas benefitted the generalisability of the quota.

- **Availability during the whole longitudinal study.** In order to decrease mortality in the sample, the participants had to be able to commit to the time duration of the study and had to make themselves available during data collection periods.
- **Willingness to share sensitive information.** While there is always the potential for non-disclosure in a study on sensitive subjects like money (See Section 5.6.5), the participants agreed to share their monthly income and expenditure data. In addition, the participants were screened for willingness to participate in the interviews through which to discuss household decision-making.

The final sample of household participants was selected through a process of identifying suitable and accessible target provinces, metropolitan areas, suburbs and then the households themselves. While quota sampling was the core principle that guided the household selection process, there were some additional sampling techniques used to identify the locations of the sample households as illustrated in Figure 4.1.

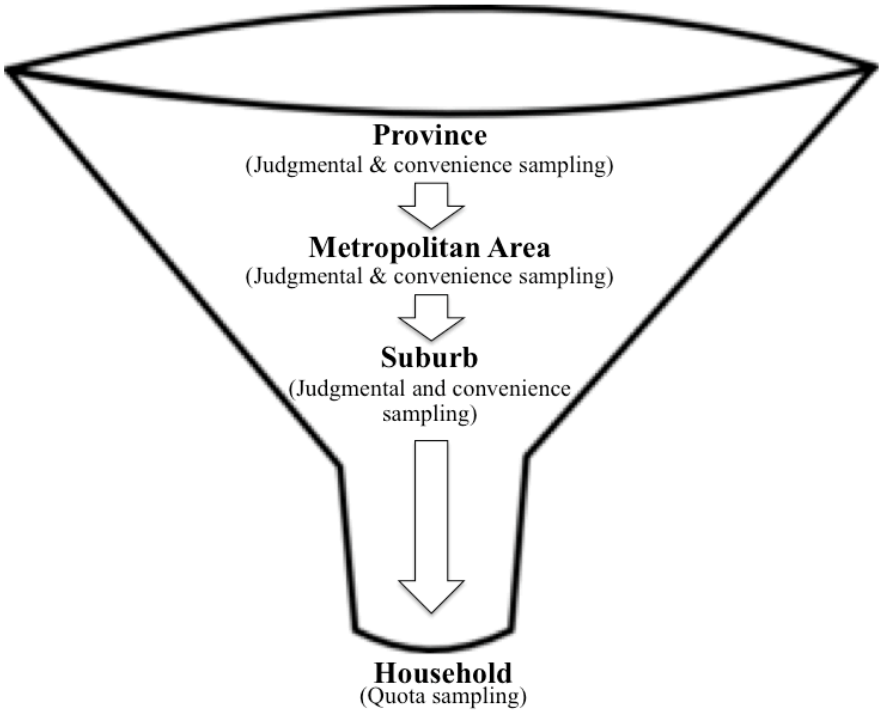

Figure 4.1: Sampling process

In judgmental sampling the participants are selected because it is expected that they are representative of the target population and will meet the needs of the study. In convenience sampling the participants are chosen due to the need for voluntary participation. Selection is therefore left to the interviewer (Dillon, Madden & Firtle, 1993; Roulston & Martinez, 2016; Malhotra, 2010). The use of each method in the route to a final choice of households is discussed in the sub-sections below.

4.5.2.1 Province and metropolitan area selection

South Africa has nine provinces and multiple metropolitan areas with households that meet the BoP criteria for this study. With the use of fieldworker access (convenience) and the desire to represent a range of different communities (judgmental) led to the selection of four provinces and a single metropolitan area within each. The provinces are:

- Johannesburg, Gauteng Province
- Potchefstroom, North West Province
- Port Shepstone, KwaZulu Natal Province
- Mthatha, Eastern Cape Province

Figure 4.2 is a physical map for of South Africa depicting the selected sites (See Figure 1.2 for a political map with provincial boundaries).

Figure 4.2: Physical map of South Africa with target sites identified (Adapted from Googlemaps)

Duvenage et al (2010) conducted a South African BoP study in four locations in a single South African province. The budget for this research allowed for seven locations in four different South African provinces. The data collected was similarly able to be compared with StatsSA (2011) in order to test for the same sample generalisability (see Chapter 5, and particularly Section 5.3 for more detail on the process).

4.5.2.2 Suburb selection

Once the province and metropolitan area was chosen, the predominantly BoP suburbs were selected using a combination of judgmental and convenience sampling. Owing to South Africa's colonial legacy, geographic division between wealthy, middle class and BoP suburbs is evident, and BoP suburbs are generally located on the periphery of urban areas (Coetzer, 2011; Mahajan, 2014; Masojada, 2017). These BoP suburbs are generally within distance of public transport to places of employment in the greater metropolitan area. The fieldworkers (most of whome lived in BoP households themselves), then assisted in selecting suburbs that met the criteria of being predominantly BoP.

The specific locations, basic demographic and geographic details (including maps) of the sample suburbs are described in the sub-sections below. Photographs of the sites can be found in Appendix 5.

- **Johannesburg, Gauteng (Alexandra)**

Although Gauteng is South Africa's smallest province, Johannesburg is the country's largest city. The city has both many wealth and poor communities (SAHO, 2017). Figure 4.3 is a map of Alexandra, one of the suburbs chosen for the study site in Johannesburg, Gauteng.

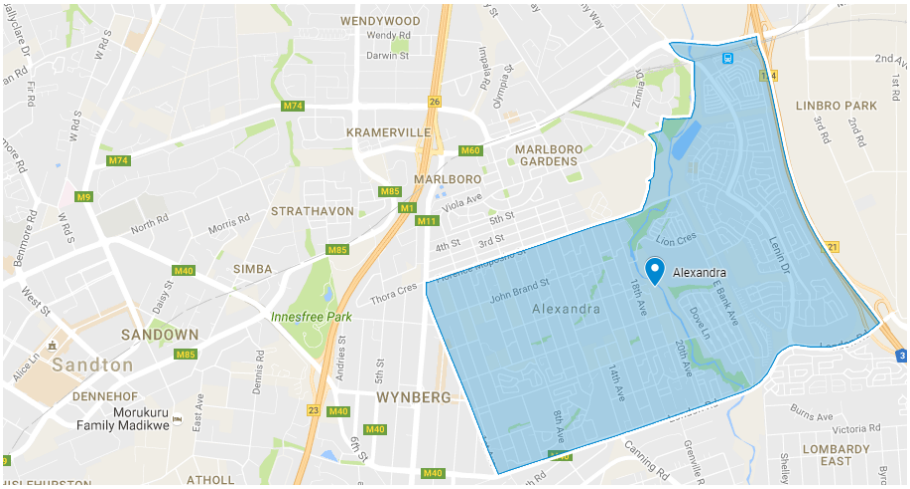

Figure 4.3: Map depicting Alexandra as a suburb of Johannesburg, Gauteng (Adapted from Googlemaps)

Alexandra, informally abbreviated to Alex, is a township that forms part of the city of Johannesburg, Gauteng. The area is not far from some of Johannesburg's wealthiest suburbs and Alexandra itself is one of the poorest urban areas in the country. Alexandra has a combination of houses and informal dwellings for its 180 000 inhabitants (SAHO, 2017).

- **Potchefstroom, North West Province (Mohadin, Ikageng)**

Potchefstroom is a city in the North West Province of South Africa. The city is situated roughly a 120 kilometres west-southwest of Johannesburg (Potch-Info, 2017). Figure 4.4 is a map of Ikageng and Mohadien, two of the suburbs chosen for the study site in Potchefstroom, North West Province.

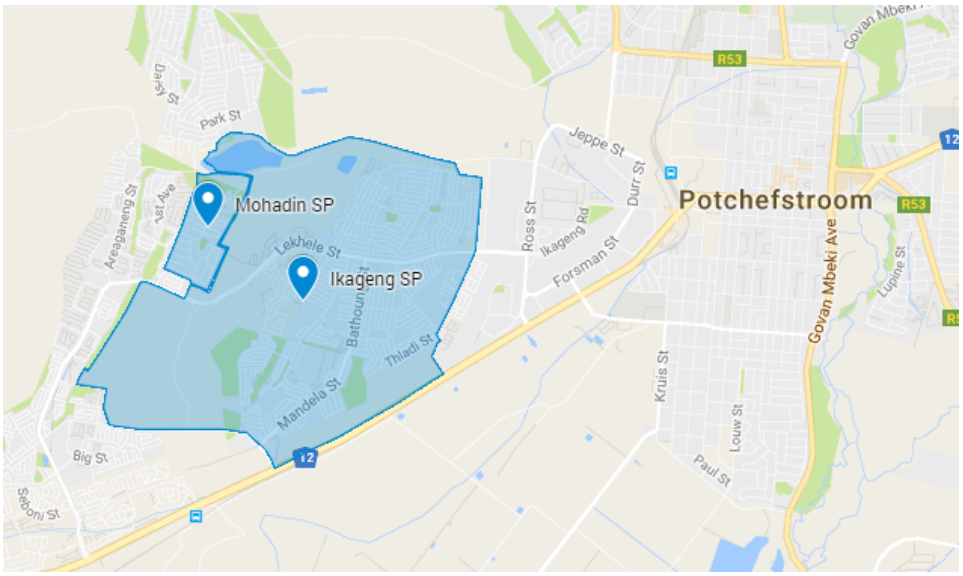

Figure 4.4: Map depicting Mohadin and Ikageng as suburbs of Potchefstroom, North West Province (Adapted from Googlemaps)

Potchefstroom houses North West University and also has a number of BoP areas like Mohadin and Ikageng. The population of Potchefstroom was just over 128 000 after the 2011 census (Potch-Info, 2017).

- **Port Shepstone, Kwazulu Natal (Izingolweni)**

Port Shepstone is situated on the mouth of the Mzimkulu River 120 kilometres south of Durban (Frith, 2011). Figure 4.5 is a map of Izingolweni, a suburb on the outskirts of Port Shepstone, KwaZulu Natal.

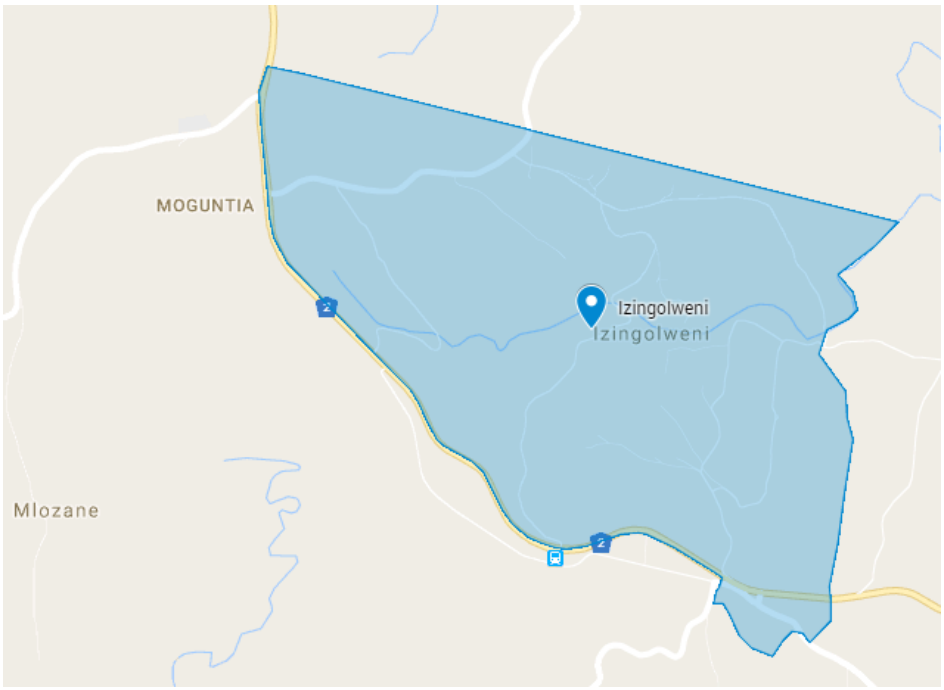

Figure 4.5: Map depicting Izingolweni just outside of Port Shepstone, Kwazulu Natal (Adapted from Googlemaps)

Port Shepstone is the administrative, educational and commercial centre for the southern KwaZulu Natal province. The area has just under 36 000 inhabitants, and Izingolweni is a suburb just outside (inland) of the main town (Frith, 2011).

- **Mthatha, Eastern Cape Province (Gxulu, Mandela Park, Ngangelizwe)**

Mthatha, formerly Umtata, is the main town of the King Sabata Dalindyebo Local Municipality in Eastern Cape province of South Africa (Frith, 2011). Figure 4.6 is a map of Mthatha, Eastern Cape, with the chosen suburbs of Gxulu, Mandela Park and Ngangelizwe.

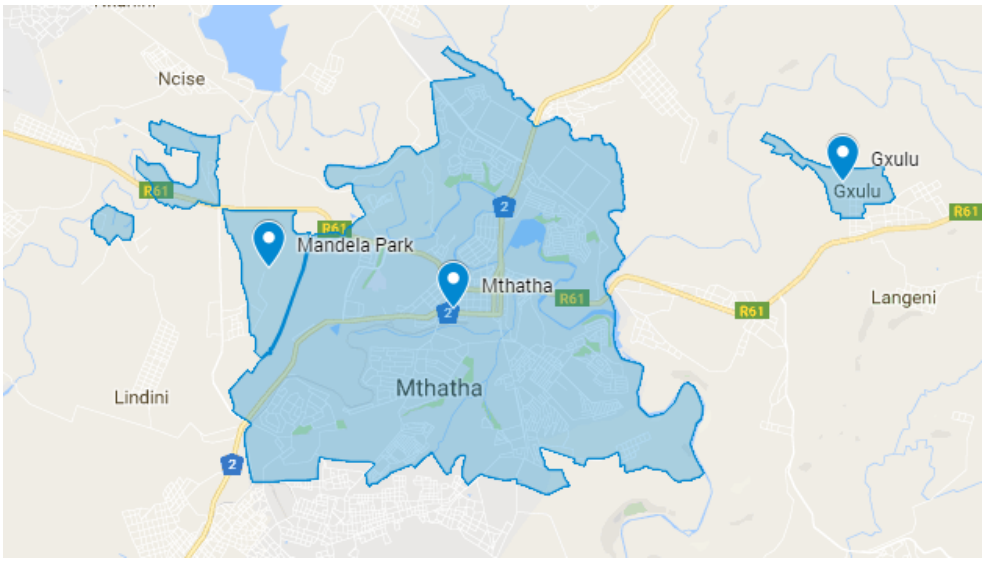

Figure 4.6: Map of Mthatha, Eastern Cape Province (Adapted from Googlemaps)

Mthatha, has 100 000 inhabitants and is 85% Xhosa (Frith, 2011). Table 4.1 below is a summary of the final suburb selection.

Province	Metropolitan Area	Suburb
Gauteng Province	Johannesburg	Alexandra
North West Province	Potchefstroom	Ikageng
		Mohading
KwaZulu Natal Province	Port Shepstone	Izingolweni
Eastern Cape Province	Mthatha	Mandela park
		Gxulu
		Ngangelizwe

Table 4.1: selected sample: Province, metropolitan area, and suburb

Two of the metropolitan areas utilised a single suburb (Gauteng, Port Shepstone), while the other two had more than one suburb (Mthatha, Potchefstroom) to create a triangulation where possible. The final household selection process is outlined in the following section.

4.5.2.3 Household selection

Once the suburbs had been selected, a sample of twenty households from each metropolitan area was chosen to make up the final sample. The principles for selecting specific longitudinal study panelists is similar to traditional surveys. Recruiting, however, is sometimes more difficult due to the longer-term commitment

required (Tustin et al, 2005). As the fieldworkers were selected from the local areas themselves, their experience was used to help select households that meet the quota sampling requirements. The fieldworkers were monitored to select a range of households in multiple areas within the target suburbs (See De Villiers, Brown, Woolard, Daniels & Leibbrandt, 2013).

Introductions to the study were conducted formally, and participating households were given a letter explaining the research parameters (See Appendix 4). Also noted was that permission was sometimes needed from community heads ('chiefs') in order for the research to be conducted in the Mthatha side (specifically Gxulu). Paper consent forms were issued to accepted participants, and the informed consent process was conducted in the participant's language of choice.

Owing to the nature of panel surveys, participants are often compensated by either cash or gifts in order to reduce attrition (Zikmund & Babin, 2010; Singer & Ye, 2013). For this study (due to the four month duration), incentives were a useful means of gaining and keeping household participation. A set of options was given to participating households who would receive the chosen incentive upon completion of the survey. The incentives included a set of cookware, a mobile phone, a microwave, a portable radio or a two-plate stove oven. As income and expenditure are key components to a financial study of this nature, the decision was not to give a cash incentive as it would have likely impacted the spending habits of the participants. Some challenges with incentives are selection bias and coercion (Blohm & Koch, 2013; Bonevski, Randell, Paul, Chapman, Twyman, Bryant, Brozek and Hughes, 2014). In their study, Bonevski et al (2014) noted that selection bias and gatekeeper bias can limit sample validity in studies that require representativeness for generalisability. These issues are, however, not seen as problematic for studies that do not have such requirements. Their study also noted that providing gifts or financial incentives found high participant satisfaction and better follow-up rates (in longitudinal studies). Thank you ceremonies which include feedback to the community about the outcomes of the research were also presented as important components of community-based recruitment (Bonevski et al, 2014). In the next section, the details of the sample size and distribution is briefly discussed before detailing the actual data collection.

4.5.3 Sample size

The sample size was limited to eighty households spread over the four chosen areas. Dillon et al (1993) state that in a non-probability sample, statistical precision will not be a factor. Taylor and Lynch (2016) noted that since financial diaries are expensive to administer, diary samples are often smaller and used for exploratory purposes as in the case of this study. A study by Collins et al. (2009), which used samples of forty-two and forty-eight households in Bangladesh and India respectively, used the same financial diary methodology. Collins et al. (2009) were successful in achieving their objectives of comparing BoP income and expenditure behaviour across countries, and have been widely cited. While the study by Collins et al. (2009) was useful to validate the financial diary methodology, the study was focused on development economics and not marketing. Collins et al. (2009) was also not multi-wave so as to observe monthly trade-off behaviour as this study did. While more sample households in more South African provinces would be beneficial (See limitations in Chapter Six), cost and time limitations restricted the sample to eighty households in four South African provinces over four waves. Table 4.2 has a summary of the final household number selection.

Metropolitan area	Suburb	Languages	Number of Households
Johannesburg	Alexandra	isiZulu, isiSotho	20
Potchefstroom	Ikageng	isiTswana	13
	Mohading	isiTswana	7
Port Shepstone	Izingolweni	isiZulu	20
Mthatha	Mandela park	isiXhosa	4
	Gxulu	isiXhosa	5
	Ngangelizwe	isiXhosa	5
	Mthatha (other)		6

Table 4.2: Sample of eighty households showing suburbs, languages used in fieldwork and number of households per suburb.

In the next section, the actual process of data collection and data capture is detailed. The section begins with an overview of the fieldworker training and supervision, followed by a description of the data measurement instruments. The section then explains how the data was captured into a format for analysis. The section then leads into the final section of the chapter on data analysis.

4.6 Measurement Instruments

The three research instruments explained in Section 4.3 were the once-off baseline questionairre, the financial diaries and the household interviews. In this sub-section, a brief description of the design of these instruments is explained.

4.6.1 Once-off baseline questionnaire design

The baseline questionnaire was designed to create an initial demographic description of the household. The questions asked included details about household makeup, income, expenditure (over the previous month before the research began) as well as what items were present in the household. The once-off baseline questionnaire was designed in alignment with the baseline survey methodology used by NIDS (NIDS, 2017) who have been successfully collecting household and individual data since 2008. The questionnaire is longer that the financial diaries as it sought to gather extensive data on the household. This data was then used to screen the household for sample fit and to provide a means by which households could be compared for generalisability and triangulation (see Section 4.9). The questionnaire started with a section that recorded the details of the household location and the household makeup (including items like age, gender and household head). General household living standards were recorded next. This record included the type, quality and location of the dwelling. The questionnaire then detailed the income sources for the household. The income sources were split into type of income and primary recipient. In addition, the household services were recorded including items like television signal, water and electricity sources. An overview of the general household expenditure was then obtained. This record formed a pilot for the financial diaries to come. Data on the general patterns of expenditure included estimates on amounts spent and shopping frequency. An inventory was then collected of expenditure across a number of predefined categories. Durable goods ownership was then recorded before a brief overview of financial assets and debt was made. Mobile phone and media consumption was also recorded. Before completing the questionnaire, the fieldworker made note of the interview language and the general disposition of the participant. Should the response be hostile, the household would likely be dropped from the sample. The baseline questionnaire can be viewed in Appendix 1.

4.6.2 Financial diary design

The self complete financial diaries was the instrument used to collect the quantitative data on household income and expenditure patterns. The financial diary has a set of pages with space to record the details of each expense from the month. Household representatives in the study kept a constant record of expenses in different categories. The questionnaire itself started with a space for the household ID to be filled in by the fieldworker before the diary was submitted to the participant. The expenditure recording spaces on the financial diary has place to write the date, the item bought and who bought the item. In addition, there was space to record whether the item was bought for cash or credit, the amount paid and an additional column for whether there was a slip kept (optional). One of the features of the design was to provide a visibly open category for unspecified expenditure ('other'). As per the research design, the participating households were trained (by the fieldworkers) on how to complete the financial diaries. Participants were given space on the questionnaire to insert the items that they had purchased (including amount spent). These personally worded descriptions were then later coded and categorised (see Table 4.5 and Table 4.6). The process was monitored closely for the duration of the study by the fieldwork team. A sample of a financial diary can be seen in Appendix 2.

4.6.3 Interview design

There are multiple ways to administer interviews. Some considerations are the structure of the interview (for example, semi-structured or guided), the duration of interviews and the mode of recording the interviews (Tustin et al, 2005). For this study, the interviews were conducted with chosen household representatives (often the household head). The interviews were guided, and answers were open ended to help gather a broad range of insights that would connect the household expenditure to situational (or other) phenomena. Appendix 3 displays a list of questions that the fieldworkers were given to explore the subjects in question. The core of the interviews was based on three questions that were each individually explored. The first question was about any noticeable situations that happened in the household during the previous month. This very open questions allowed participants to say anything that came to mind. While much of the data was not directly relevant to the research objectives of this study, the breadth of response allowed for a rich source of insighs after analysis (See Section 5.7). The second and third questions were a deeper

probe into what the participants viewed as the most significant event and large purchase in the month prior. By adding this question, the lives in the household were further explored for possible insights into consumer behaviour patterns. The next question was about the details of income sources and loans. As described in Section 4.3.1.3, the laddering technique was used to probe for deeper insights.

4.7 Data collection

This section describes the core elements of the data collection process. First, the timing of the data collection is explained. Next the fieldworker selection and training is described. Third, the data capture process is explained. Where applicable, this process of data capture involved either coding (Quntitative data) or translation and transcription (Qualitative data).

4.7.1 Timing of the data collection

The research design for this study involved a once-off baseline questionnaire for each household, followed by a four wave panel of financial diaries and interviews (See Section 4.3.1). The initial data collection was planned for the months of December 2013 to March 2014. The choice of months was chosen to include the festive season, which is an important time for South African marketers (Terblanche, 2013). During the initial stages of the fieldwork, the fieldworkers in two research sites no longer met the requirements of the study. The fieldwork in those two metropolitan areas was suspended and new sites were found. New fieldworkers were selected and trained. This process created a delay in two of the sites, as new households needed to be recruited.

Area	December '13	January '14	February '14	March '14	April '14	May '14
Johannesburg	W1	W2	W3	W4		
Port Shepstone			W1	W2	W3	W4
Potchefstroom		W1	W2	W3	W4	
Mthatha	W1	W2	W3	W4		

Table 4.3: Staggered start to fieldwork

As seen in Table 4.3, Potchefstroom was started in January 2014 and Port Shepstone was started in February 2014. While not part of the initial design, the delayed start

provided a spread of waves across six months (as opposed to the originally conceived four months).

4.7.2 Fieldworker selection

Owing to the expense in establishing and maintaining multi-site panel research, fieldwork contractors are often used in larger studies (Zikmund & Babin, 2010). The nature of this study required high fieldwork engagement as they would be responsible for both regular collection of the financial diaries as well as regular interviews. The nature of a multi-wave longitudinal study also runs the risk of participant fatigue (Taylor & Lynch 2016). Capable, motivated and trained fieldworkers were therefore sought.

A fieldwork manager named Unathi Vilakazi was employed to source a set of four fieldworkers. Potential fieldworkers were asked to submit curriculum vitae, which were then assessed for suitability. Of primary importance was the need to be able to conduct interviews in the first language of the households sampled. The selection process yielded the following fieldworkers by the names of Ramatamo Sehoai (Johannesburg), Nokuphiwa Cele (Port Shepstone), Lindiwe Bomela (Potchefstroom), Thobile Peyana (Mthatha).

Since the research utilised a non-probability sampling technique, the fieldwork team became key to selecting the sample as outlined in the next section (See Yanow, 2006; Bochner & Riggs, 2014; Howard-Payne, 2015; Katz, 2015). Details of the fieldworker training and the supervision of the data collection will be discussed in the next sub-section.

4.7.3 Fieldworker training

Both kinds of data (qualitative and quantitative) was collected by the same fieldworkers. A key factor for any successful data collection is the quality of the fieldwork (Malhotra 2010; Roulston & Martinez 2016). Thorough fieldworker training helps to ensure consistent quality in the data collection process (StatsSA, 2016). With such a high reliance on fieldworkers, this study required a strong supervisory presence to maintain quality. Since the data collection was done over

multiple months, the supervision was designed to maximise contact and guidance given the time and budgetary constraints.

Although the fieldwork supervision occurred through constant communication, two training sessions were held with the fieldworkers to provide initial instruction. The first training session was held on the 20th November 2013 in Soweto, Johannesburg. At the training, the fieldworkers were familiarised with both the qualitative and quantitative collection procedures. After the first training, the fieldworkers were sent back to their respective sites in order to begin the household selection process. The various fieldworkers were then visited for follow-up on-site training. By the on-site follow-up visit, the fieldworkers had begun the process of household selection and data gathering (specifically the once-off baseline questionnaire), and questions could be addressed.

In order to monitor and hold the fieldwork supervisor and fieldworkers themselves accountable to the deadlines, communication lines were established. All of the fieldworkers were available on mobile phone, email and via instant messaging (WhatsApp™). Regular communication allowed the fieldworkers to ask questions when challenging situations arose, and to allow clarification of data that was submitted after every wave.

In addition to the training follow-up visit, two more visits were made to each of the sites. The visits allowed the author to meet household participants, and to discuss progress with the fieldworkers. The first multi-site supervision visits occurred from the 30th of January to the 3rd of February, 2014. The sites were visited in the order of Johannesburg, Potchefstroom, Port Shepstone and Mthatha. The second supervision visits occurred between the 12th and 21st May, 2014. The order of the trips was Potchefstroom, Mthatha, Port-Shepstone and then Johannesburg. The initial training workshop and follow-up training visit, followed by both of the extra on-site visits were instrumental in reducing fieldworker fatigue and some visuals from the site visits can be seen in Appendix 5. In the next sub-section, the design of the data measure instruments is discussed.

4.7.4 Data capturing

The data collection and capture process worked through a system that transferred the data from collection in the field, through to data capture and then to quality control checks. Each item of the process is discussed below.

The fieldworkers were couriered the data collection instruments (financial diaries) and equipped with recording devices by which to audio record the interviews for transcription. The fieldwork took place from December 2013 to May 2014 depending on the site (as per the descriptive findings in Chapter Five). The fieldwork schedule followed the following pattern in Table 4.4:

Visits to sites	Notes
Visit 1	The fieldworker visited the target areas and collected a list of willing participating households. They discussed the research, the incentive and were given a letter explaining the purpose of the research (See Appendix 4)
Visit 2	Once the fieldworker received questionnaires and interview guide, they would set up appointments to visit the sample households and conduct the baseline questionnaire. They would then train the household in how to complete the self-complete questionnaire for wave 1.
Visit 3	A month later, the fieldworker would set up an appointment to visit the household and discuss the self-complete questionnaire for wave 1. Problems would be discussed and questions answered. The Fieldworker would check the questionnaire, and for the households participating in the qualitative interviews, they would be conducted.
Visit 4-6	The same process of visit, check and interview was conducted in the following three visits. After each visit, the completed surveys were sent back for capture and the next waves ones were sent.
Visit 7	The penultimate visit was conducted to close the fieldwork process and gather the final questionnaires.
Visit 8	This was the final visit and included the delivery of the incentives. Pictures of some participating households receiving their gifts can be seen in Appendix 5.

Table 4.4: Notes from visits to fieldwork sites[24]

Efforts were made to be consistent in the methodology applied across waves, while also paying attention to being more efficient in field operations. Constant communication was made to coach the fieldworkers and reduce interviewer effects. The monitoring of fieldworker behaviour during field operations was a key quality control measure, and allowed problems to be addressed early and for adjustments to be made. Some households were dropped early on in the study due to non-response. These households were replaced, and new baseline questionnaires were completed. This did cause delay, and some areas lost complete waves (See Chapter 5).

[24] Dates have not been included in this table as they varied from site to site.

Fieldworkers had a constantly adjusting schedule as some visits (for diary collection or interview) found participants not immediately available.

Once a diary was complete, it was returned to the fieldworker who would then collect the diaries for the area and courier them back to Cape Town where they were then captured and coded (See Section 4.6). The recorded interviews were loaded onto a file-sharing software program to be downloaded for translation and transcription. The details of the capture and coding process is discussed next, and the full process can be seen in Figure 4.7.

4.7.4.1 Quantitative data capture and coding

The data capture and coding was supervised by Tim Brophy and Louise De Villiers, both experienced researchers from NIDS.[25] Both research analysts[26] were able to provide some level of inter-rater reliability (See Section 4.8 for a full explanation of inter-rater reliability).

The coding and categorising of financial diary entries was tailored for this study as no standardised category measurement tool exists (See Chapter Two, and particularly Section 2.9 to see different category coding used in various surveys). The first step in the quantitative coding process took the baseline questionnaire code categories as per Table 4.5 below.

Code	Category
01	Groceries
02	Transport
03	Cell phone
04	Schooling
05	Clothing
06	Water
07	Electricity

[25] NIDS was the first panel study in South Africa and is implemented by the South Africa Labour and Development Research Unit (SALDRU) based at the School of Economics at the University of Cape Town. The panel study has been operating since 2008, and has surveyed over 28 000 individuals in 7300 households across South Africa (NIDS, 2017). Multiple published articles have used NIDS data and the methodology used by NIDS will be replicated in this study.

[26] Tim Brophy and Louise De Villiers were employed to assist with data management given the size of this study. In particular, Tim brophy's inputs have been invaluable as a data supervisor and analyst.

08	Entertainment (incl. alcohol, cigarettes, sport, etc)
09	Health Care
10	Cleaning materials
11	Cosmetics/Toiletries/Body Care
12	Stokvel
13	Funeral Policy
14	Burial Society
15	Other (Specify)

Table 4.5: Baseline questionnaire category codes

Once captured, the expenditure descriptions were assigned to a relevant code. This process was completed by matching the informal expression with a code. For example, text like "Vodacom airtime" and "airtime" were coded into the same category (Cell Phone). Owing to a variety of spelling and colloquialisms, a list of key words or sentences was created (with all varieties of spelling) that was used to search the text descriptions and separate them into their categories. Table 4.6 shows examples of expenditure entries and their associated codes.

Possible response items	Final Category
Food, Beverages consumed at home, non-cleaning consumables like toothpaste and toilet paper.	Groceries
Mobile phone payments (Airtime, data)	Cell Phone
PayTv subscription,	Entertainment
Doctor payments, medicines, traditional healer payment	Health Care
Fees, stationery, books	Schooling
Public Transport (Bus, Taxi, Train)	Transport
Takeaway (Quick service restaurants); Informal trade food outlets	Eating out
Household cleaning consumables	Cleaning Material
Self-care items like creams, makeups and deodorants	Cosmetics
Payments to municipalities for in-home water usage	Water
Payments to municipalities for in-home electricity	Electricity
Clothing and shoes (non-school related)	Clothing
Any other item not categorised above	Other

Table 4.6: Categories distilled from items for final analysis

The captured data from each questionnaire was exported into a statistical analysis package called STATA™ by the custom written[27] capture software, and then out of STATA™ into MS Excel™ spreadsheet. STATA™ is a general-purpose statistical software package created in 1985 by Corp. The software is used extensively in research, especially in the fields of economics, sociology, political science, biomedicine and epidemiology. STATA™'s capabilities include data management, statistical analysis, graphics, simulations, regression, and custom programming (Newton, 2004; STATA, 2016). The program allowed transition tables to be created from the data in order to compare waves, regions and households.

Cleaning the data (also sometimes referred to as data editing) is the process whereby the researcher ensures that the data is accurate, complete and consistent. In the case of this study, there was a large emphasis on the completeness aspect as the self-complete questionnaire often had missing data points (such as a missing description of the item purchased). For completeness sake, these fields were filled in the "Missing" response code. The final table for each household was then exported to MS Excel™ where pivot tables were used to generate data for each household based on the categorisation codes. See Appendix 6 for a visualisation of the pivot tables. The tables were then used for analysis as reported in Chapter Five.

4.7.4.2 Qualitative data capture, translation and transcription

The interviews (qualitative data) were audio recorded, and field notes were kept by the fieldworkers. Since the research design required all interviews to be conducted in the participants home language (See Figure 4.3), the recordings were first translated and then transcribed into English. The transcribed interview data was captured on the word processing software MS Word™. Once the transcriptions were available, they were then matched to waves for analysis. There was a broad range of household participation with the interviews. Some households were responsive to the laddered questioning, while others were more resistant. Unlike the quantitative data that could be coded before analysis, the qualitative data was coded as part of the analysis process (Miles et al, 2013), which is found in Section 4.9.2.

[27] By Tim Brophy

4.8 Elimination of bias

A number of data quality issues can arise during the collection and capturing process. The goal of quality control is to ensure that the data is fit for use. In addition, there is the need to militate against issues such as household and individual non-response as well as fieldworker bias. Bias is a distortion of results due to the inclusion of factors not allowed in the research derivation (Dillon et al, 1993). An example of bias in this kind of consumer household study would be the sampling of a group of friends from the same religious community. In such a scenario, attitudes and behaviours observed in the research may be directly linked to the social and religious commonalities between households and not to more generalisable phenomena. Interviewer biases are common as preconceived ideas may negatively bias the direction of an interview towards the interviewers own thinking (Dillon et al, 1993).

Household non-response was minimised through a series of measures that are consistent with the lessons learned from NIDS panel surveys (NIDS, 2013). Among the measures effective in minimising household non-response and attrition, valuing panel members is key. Along with the incentive gift given to respondents, the information letter (about the research) emphasised the value of participants' contribution. The site visits to train fieldworkers also met an intentional parallel purpose of connecting with participating households. The fieldworkers to whom the members spoke felt very fortunate to have a staff member (The researcher) from the University of Cape town visit them and come into their homes. Joining in on interviews during these visits helped show respect and participation. In this way, survey participation was encouraged as much as possible.

The use of quality control measures at each wave reduced the instances of interviewer-induced bias and item non-response. Using experienced data capturers was crucial, as they possessed expertise in identifying faulty patterns in the data collection[28]. The details of both the quantitative and qualitative quality control is the focus of the following sub-sections.

[28] In both the sites that were dropped, the data quality supervisors were able to identify fraudulent data collection at the post-field pre-capture data quality stage, and the fieldworker was confronted and

In the next section, the methodology of data analysis is explained. The full results of the analysis are found in Chapter Five.

4.9 Data analysis and validity

The purpose of data analysis is to interpret and draw conclusions from the mass of collected data (Tustin et al, 2005; Malhotra, 2010). The analysis of the data collected and captured involved different processes depending on whether it was the financial diaries or interview data. This section outlines the basic approach to both methods of analysis.

Triangulation of data is the comparison of different kinds of data (for example, quantitative and qualitative) and different methods (for example, observation and interviews) to see whether there is a corroboration (Silverman, 2013). There are multiple ways that data can be triangulated in order to improve reliability and generalisability. For this study, the data was triangulated in four ways. First, the use of four provinces and seven suburbs spread the sample over a wide geographic area. This spread meant that geographically isolated results would be comparable to the overall results. The comparison of data between sample areas is discussed in Section 5.5.3 and Section 5.6.2. Second, the use of mixed methods allowed for some triangulation as the variation seen in household expenditure (quantitative data) was explained by the interviews (qualitative data) as seen in Section 5.7. Third, the baseline data from the sample households was validated against existing census area data. This validation was able to confirm the generalisability of the households as representative of the sample areas. Fourth, within the data anaylsis itself there was triangulation in the form of inter-rater reliability checks with three independent analysts of the qualitative data in addition to the observations made by the principal researcher.

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immediately removed from the study upon admission of guilt. The data was removed from the study completely, and new locations were found.

The next two sub-sections focus on both the quantitative and qualitative analysis. The details of the triangulation are discussed under each of these headings. The outcomes of the analyses will be found in the next chapter.

4.9.1 Quantitative analysis

Each financial diary underwent a manual data quality process. This process was focused on ensuring that the data was accurate and complete. Where large portions of data were missing, the questionnaire was sent back to the field for the sections to be completed. Where only a few data points were missing a data missing code was filled in to indicate that the data was missing at random and not systematically missing.

Once completed forms were ready, the capture process involved data capturers capturing the post quality controlled data from the handwritten questionnaire into the custom written MS Access™ database. The database interface ensured that the questionnaire design was carefully observed by ensuring that all skip patterns, valid response ranges and valid code lists were adhered to. To this end, the software alerted the capturer and supervisors that there was data missing in three ways. First, if the field was skipped out, the field itself would display a red background to indicate that the capturer skipped a field. Second, those fields' names were written to a summary at the bottom the capturers screen to allow them to review and correct the skipped data. Third, any skipped data not corrected by the capturer was reported for a post capture review by the supervisor. This process involved the supervisor reviewing both the physical and electronic version of the questionnaire to fill in the missing data.

Another issue related to data quality is item non-response. According to NIDS (2013), item non-response can arise for different reasons – some participants, for example, might not know an answer, or they may refuse to answer a question. In addition, interviewers may also mistakenly skip over a question. "Don't know" and "Refuse" response options were coded accordingly. This allowed for the estimation of item non-response rates for relevant questions.

Over and above the issue of household and unit non-response is the internal consistency of the data. Consistency within households, across areas, and across waves was crucial to the integrity of the study. Data collection involved several

quality checks and mitigations. The quality control process involved a few simple but necessary steps. First was the use of the participating household's home language. Every effort was made to ensure that participants gained clarity over the process. Consistency and quality checks were also implemented to ensure high quality data. Fieldworkers explained the questionnaire carefully and pre-coded responses were translated where necessary.

The data capture team had a range of variables that could be used to validate questionnaire consistency. Having a comparison of the municipal data allowed the capturers to assess whether baseline data was consistent and feasible for the different target areas. In addition, cross questionnaire (wave) checks were also built in, such as cross checks between incomes received between waves.

Two actions relating to data quality were actioned by the data capturing team who fed back questions to the field. First, in places where large sections of data were missing, the questionnaire was returned back to field. Especially in the baseline and first wave, some questionnaires were returned to households to complete. This action also formed part of the initial fieldworker training as they were coming to terms with the need for thorough and consistent work. Secondly, data issues were corrected. Each questionnaire was manually assessed and corrected by the data supervisor before capture. The purpose of this process was to determine what questionnaires needed to go back to field. In addition, the process can identify fieldworker cheating, and fill in missing data points (with a missing code to indicate that the data was not missing at random). Since each wave was sent for quality control and capture immediately upon completion, the data supervisor and data capturers were able to process the data and catch issues early.

Very few questionnaires needed to be returned back to field (once the two problematic sites were replaced). By the start of wave two, the process and data quality requirements were familiar to both the fieldworkers and households. After the pre-capture quality control, capture and post-capture quality control was completed, the database published a STATA™ version of the data. This STATA™ version was then used to create a Ms Excel™ version of the data (complete with metadata and code list for each question).

Once the financial diary data had been exported into Ms Excel™, each household was independently analysed. The first stage of the analysis was to compare the household profile (baseline questionnaire) with the existing StatsSA (2011) census data to validate the sample (See Section 5.3 in the next chapter). Duvenage et al (2010) used a similar comparison of survey data to existing demographic data to generalise the results to a national level. Duvenage et al (2010:312) noted that:

> *"The availability of demographic information for the settlements made it possible to relate the survey results to the geographical settings and average household income and to generalise the results."*

The outcome of the household validation process is found in Chapter 5. Once validated, each household's monthly income and expenditure data was compared (over the recorded waves).

The household income for each household and region was compared for changes in source and variability in amount received. The income findings are detailed in Section 5.5. The category expenditure fluctuations were measured according to a process of identifying shifts of over 15% in base grocery expenditure followed by identifying spikes in other categories (See Section 5.6). The trade-offs were then analysed in conjunction with the qualitative data in order to draw the thematic observations in Chapter 5.7. The qualitative analysis is explained in the next sub-section.

4.9.2 Qualitative analysis

The qualitative interviews were conducted in participating home languages and transcribed before analysis. While some translation error was likely, the magnitude of this error is likely to be very small since the overwhelming majority of participants were also fluent in English. To reduce interviewer effects, the fieldworkers were trained to leave qualitative questions open ended, and transcripts were scrutinised for repetition. Dillon et al (1993) state that participants tend to respond better if the interviewer has a similar background to them. The use of fieldworkers from the same area and having a similar socio-economic background was a benefit to the research process.

The qualitative component of the research was designed to specifically inform the proposed shifts in both income and expenditure between waves. The qualitative data therefore needed to be analysed on both a case-by-case basis, as well as looking for overall trends. Each conducted interview was aimed at identification of specific phenomena that could have influenced monthly household income and expenditure patterns and trade-offs. The questions were open-ended, and there were no pre-conceived or pre-coded mechanisms to influence the answer. Due to the timing constraint of having a single fieldworker per site, the interviews were not always in direct sync with the financial diary collection. The timing of the interviews was, however, recorded as wave-level quantitative and qualitative data was matched. When each households survey data was created into transition tables, the qualitative information would then inform household shifts in expenditure and income.

Once all the data was captured, certain overarching trends were explored by way of thematic analysis as proposed by Taylor and Ussher (2001). Thematic analysis is a method widely used in qualitative research studies in which the researcher actively identifies themes within a dataset, selects those which are of significance to the particular study, and reports the findings (Taylor & Ussher, 2001; Braun & Clarke, 2006). The process of coding employed for this line of analysis followed qualitative analysis guidelines described by Miles, Huberman and Saldana (2013), which involved the manual coding and categorisation of the data, the recoding and re-categorisation of the data and, finally, the presentation of the themes identified (Miles & Huberman, 1994). For the purposes of this study, the themes derived from the data were ultimately categorised into the components related to factors impacting income and expenditure patterns (See Appendix 13 for a sample of the thematic analysis).

While the strict guidelines by Miles, Huberman and Saldana (2013) were followed when analysing the qualitative data, it must be noted that the researcher in this case was the main instrument of analysis and because of this, bias was a concern (Marques & McCall, 2005). In order to ensure the reliability and validity of the qualitative data analysis, the process of inter-rater reliability was used.

Basically put, inter-rater reliability is “the extent to which two more individuals (coders or raters) agree” (Marques & McCall, 2005:442). This process involved the

raw data and transcripts being sent to three other experienced researchers who engaged attentively with the information, in the same way that the primary researcher had done, offering independent insights and opinions (Marques & McCall, 2005). In general, low inter-rater reliability shows that there is a significant degree of consensus or homogeneity in the analysis of qualitative data (Armstrong, Gosling, Wienman & Marteau, 1997), and this was the case with this study.

The argument against inter-rater reliability is that it is unrealistic to expect another researcher to garner the same insights from qualitative data as another researcher, both of whom approach the data with their own human elements related to bias and error. In fact, it is for this reason that many researchers oppose the use of inter-rater reliability in qualitative data analysis. However, there are a number of qualitative researchers who claim that responsibility for reliability and validity should be "reclaimed" in qualitative studies (Marques & McCall, 2005:443). Marques and McCall (2005) argue that inter-rater reliability would mean that room for assumptions regarding the research data is reduced as much as possible. Researchers have found that using this form of reliability in qualitative research verifies and solidifies the findings of the entire qualitative study, therefore elevating the generalisability of the outcomes of the study (Armstrong et al., 1997; Marques & McCall, 2005). Since this study included a mixed methods approach, with a quantitative and qualitative aspect to it, being able to generalise not only the quantitative results to the greater population, but also the qualitative results, was especially important and useful. Figure 4.7 is a summary of the data collection process as outlined in this section.

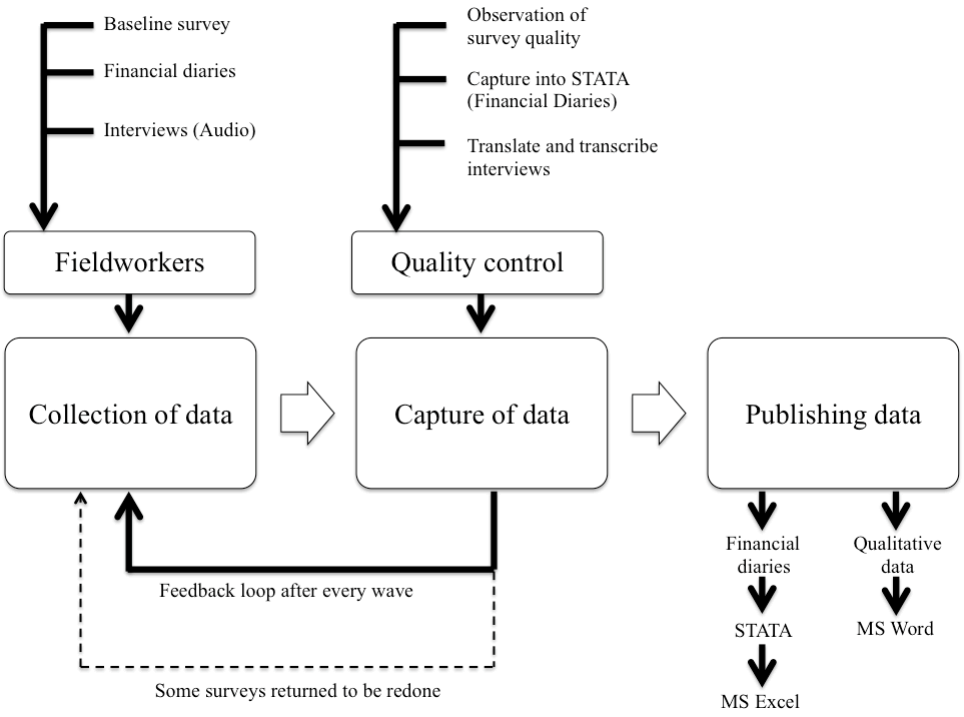

Figure 4.7: Process of data collection, capture and publishing

The following section will explain the limitations and ethical considerations of the research.

4.10 Limitations and ethical considerations

While measures were in place to ensure robust results, there were some limitations to this study as will be outlined in this section. In addition, the ethical considerations of the study will be explored in more detail.

4.10.1 Limitations

Limitations of a study are the characteristics of design or methodology that impact or influence the interpretation of the findings (Price & Murnan, 2004). Limitations can impact validity, generailsability as well as practical application of research findings and therefore necessary to report accurately. The limitations for this study focus on seven areas.

First, the sample size of eighty households is not enough to be nationally representative. While a total of 210 financial diaries collected over six months delivered significant results and conclusions, the ability to upweight a sample of

eighty to national represenattation is not possible. Nevertheless, the amount of data (both quantitative and qualitative) as well as the geographic spread did allow for some level of generalisability. Taylor and Lynch (2016) noted that since financial diaries are expensive to administer, diary samples are often smaller and used for exploratory purposes as in the case of this study. The fact that the sample allowed for triangulated results across four provinces also helped to strengthen the results in spite of the sample limitations.

Second, the lack of prior research on monthly expenditure fluctuations in South African households meant that there existed no existing framework by which to measure the expenditure variability. When it came to the analysis of the findings, the lack of an existing conceptual framework meant that a working framework needed to be devised (See Section 4.9). While a framework is helpful in measurement, the lack of existing literature on the subject was acceptable since the study is exploratory (Aguinis & Edwards, 2014). The conclusions (Chapter six) provide a foundation on which to build a framework for future study on BoP monthly expenditure variation and expenditure category trade-off.

Third, potential fieldworker and participant biases are common with primary data collection and are difficult to measure (Malhotra, 2010; Belk et al, 2013; Aguirre & Hyman, 2016; Roulston & Martinez, 2016). Interviewer bias is where the fieldworker may impose their own perceptions into the qualitative data (Dillon et al, 1993). Dillon et al (1993), however, state that having fieldworkers from a similar background to the participants can limit bias (although clearly not remove it completely). Although robust and accepted by the research community, longitudinal financial diaries are not as familiar as cross-sectional surveys due to cost and high participant involvement (Kent, 1993; Taylor & Lynch, 2016). Bonevski et al (2014) noted that selection bias and gatekeeper bias can limit sample validity in studies that require representativeness for generalisability. These issues are, however, not seen as problematic for studies that do not have such requirements as was the case in this study. The constant fieldwork supervision (Section 4.7) and the quality control measures to ensure triangulation of data and bias elimination (Section 4.8) were designed to reduce as much bias as possible while understanding that the extent that bias may have influenced the results will only be known with more studies of this nature.

Fourth, financial diaries have standard completion accuracy issues, and are subject to omissions (Collins et al, 2009; Alia et al, 2015). Timing and reporting bias are also a challenge, although other forms of data collection are not exempt from these biases too (Collins et al, 2009; Taylor & Lynch, 2016). Finn et al (2014) observed that participants are more likely to under-report expenditure when assessment is more regular. This under-reporting was observed in the case of StatsSA using a weekly financial diary methodology to assess a survey samples income and expenditure over a single month (Finn, Leibbrandt & Oosthuizen, 2014).

Fifth, timing of the data collection was a limitation. Since all eighty households had a broad geographic spread, the data was collected in different days. This limitation was unavoidable as only one fieldworker was budgeted for each site. The fieldworker was unable to collect the relevant questionnaire from each household in a single day (including the in-depth interviews). The staggering of data collection was not ideal, but this limitation did not stop the deriving of significant results.

Sixth, both fieldworker and participant fatigue was a factor (especially by the last wave). To help mitigate against both participation fatigue and attrition, participants were compensated with a gift as described in Section 4.6 (Zikmund & Babin, 2010; Singer & Ye, 2013). As income and expenditure are key components to a financial study of this nature, the decision was not to give a cash incentive as it would have likely impacted the spending habits of the participants. Bonevski et al (2014) found that providing gifts increased participant satisfaction and had better follow-up rates (in longitudinal studies). After the loss of some early households and sample areas, strong participation was experienced in this study.

Seventh, there was no pilot study conducted by which to test the multi wave instruments. While a pilot study may have assisted in creating a temporary framework, the timing and expense of a multi-wave monthly pilot study was not deemed to be necessary as the diary research methodology is not unique. This aligns with Silverman (2013) who notes that pilot studies are not always necessary. Both the fieldwork and analysis members had both training and experience in their respective roles. In addition, the similarity of the financial diary methodology to that used by

NIDS (2016) as well as the use of NIDS trained data capturers meant that the methodological path was not unique to this study.

While a study of this exact nature has yet to be conducted prior to this research, there is still much room for methodological improvement. In addition, avenues for future research are discussed in Chapter Six. The next sub-section explains the ethical considerations of the study.

4.10.2 Ethical considerations

According to Silverman (2013), there are five major ethical considerations in research. Each consideration will be focused on separately in the paragraphs below, and the specifics of these considerations for this study further explained under each of the four topics.

First, researchers, fieldworkers and participants must be informed fully about the purpose, methods and intended possible uses of the research. They must be alerted to what their participation entails and what risks, if any, are involved (Silverman, 2013). All stakeholders in the research were informed of the research details, and consent forms were signed by participating households and fieldworkers (Appendix 4). Second, the confidentiality of information supplied by research subjects and the anonymity of respondents must be respected (Silverman, 2013). No details of the participants have been made public and are availiable for examination if required. Third, research participants must participate in a voluntary way, free from any coercion and free from harm (Silverman, 2013). While incentives were given in a fully transparent way (participants chose their incentive before the start of the research), there were no other coercive practices reported by any of the fieldworkers or household participants. Fourth, the independence and impartiality of researchers must be clear, and any conflicts of interest or partiality must be explicit (Silverman, 2013). The participants received a letter from the researcher as well as two personal visits during the research period. The participants were aware that the research was for the University of Cape Town.

With respect to the methodology of using financial diaries, ethical issues are similar to those that are found in any other type of research. Issues include honesty,

confidentiality, privacy, and coercion. Diaries are time intensive and may be burdensome to participants. Researchers also believe that because financial diary studies often involve repeated interviews, it is important to remain cognisant of issues related to privacy (Taylor & Lynch, 2016). In addition to the methodological ethics, the University of Cape Town Code for Research Involving Human Subjects was applied as a guideline for conducting this research. Dr. Harold Kincaid (UCT) ethically approved the research in 2013 (see Appendix 12). No additions were made to the data since its collection, and the data has not been used in any published literature in accordance with UCT's guidelines for ethics in research. Fieldwork was conducted in a responsible and respectful manner in accordance with the ethical principles set out by both the university and the Commerce Faculty. Throughout the research, scholarly integrity and accountability was upheld to the best of the researcher's ability. With emphasis on informed consent, truthful and respectful exchanges between the research participants and the researcher have taken place. All transcripts and consent forms related to this research have been stored in an appropriate manner and are available upon request.

4.11 Chapter summary

The methodology employed for this research was comprehensive and drew components from both past and current studies (Collins et al, 2009; NIDS, 2016). A study measuring income and expenditure trade-off on a monthly basis in South African BoP households has yet to be completed on order to be used as a methodological framework. Furthermore, an analysis of the impact of income and expenditure inconsistency from a marketing perspective has also yet to been published. Both the quantitative and qualitative components of this study were designed to fulfill the research objectives. Having multi-site and multi-wave analyses also aimed to create a more comprehensive picture of the trade-off phenomena. While the fieldwork was not without incident, the data underwent rigorous quality checks and was reliable. Figure 4.8 is a research design and methodology road map adapted from Chigada (2014).

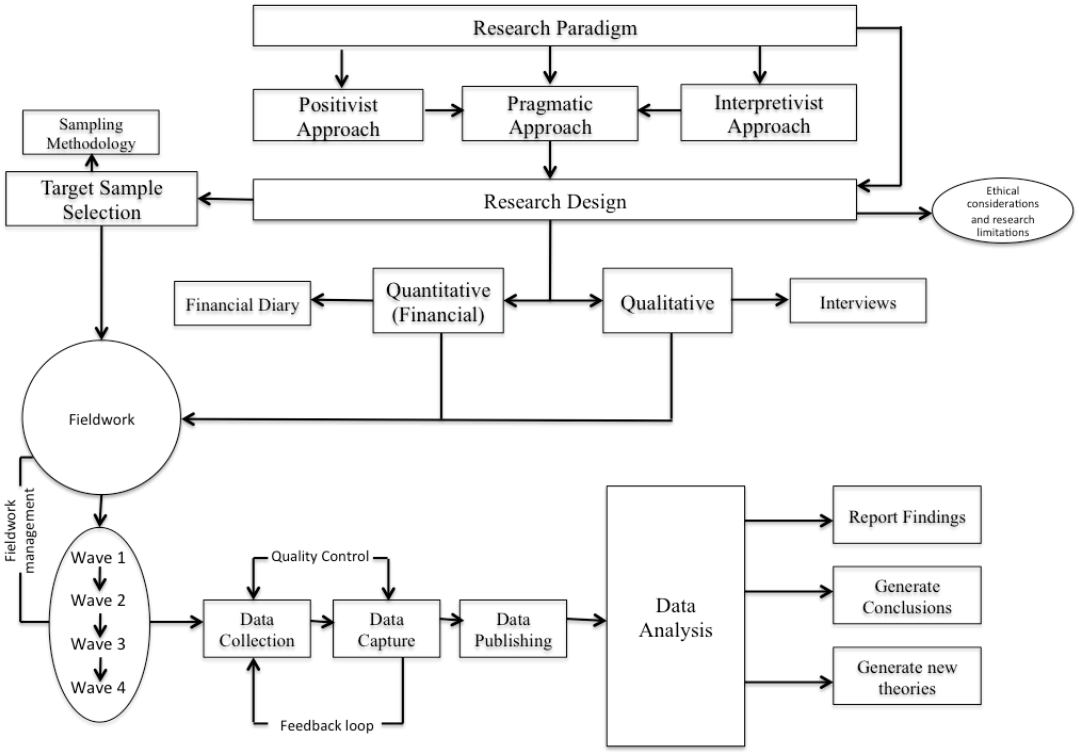

Figure 4.8: Research methodology road-map (adapted from Chigada, 2014)

The first sections introduced the methodology and discussed the research philosophy that guided both the research strategy and design. Once a methodological framework was introduced, the mixed methods research methodology was introduced with a description of the financial diaries and interviews. Next, the target population and sample were explained. In this section, the sampling methodology and sample size was discussed. The measurement instruments were then explained, and the design of the once-off baseline questionnaire was explained before the financial diary design and interview guide. Data collection was explained in the next section where timing of the data collection, fieldworker selection and data capture was described. The following section described the capture of data with special emphasis on quality control measures, validity and the elimination of bias. Finally, the limitations of the study were detailed and the ethical considerations discussed. The next chapter focuses on the findings of the research.

Chapter Five

Research Findings

5.1 Introduction

The previous chapter detailed the research methodology of this study. This chapter presents the findings for this study . The first section provides a description of the final household data collection. The description includes the number of valid data points as well as the basic demographic makeup of the sample. Each household was also assigned a household identification number. The second section then compares the sample to existing demographic data from the areas in order to verify that the households fit the area profiles. The third section describes the timing of the data collection panel waves. The following two sections then analyse the financial diary data in terms of income and expenditure. Once the financial diary data was analysed, the interview data was analysed. The chapter ends with a summary.

5.2 Household sample description

The final sample of households from which data was collected consisted of eighty households from the four locations as per Table 5.1. The data from the two areas that were changed (see Section 4.6) was not included in the sample. While there was some usable qualitative data from the discarded sites, the comparison would be weak, and there were questions over the validity of the findings in those metropolitan areas due to a contaminated sample.

Metropolitan area	Household ID	Number of households
Johannesburg	101010-29	20
Mthatha	201010-29	20
Port Shepstone	521010-29	20
Potchefstroom	601010-29	20

Table 5.1: Sample households

The households were distributed among different suburbs in the selected areas. The home language of the households was also established early in the sampling process. Table 5.2 further summarises the sample of households by providing the suburbs represented in each geographic region and the languages used in the fieldwork.

Metropolitan area	Suburbs	Languages	Number of Households
Johannesburg	Alexandra	isiZulu, isiSotho	20
Potchefstroom	Ikageng	isiTswana	13
	Mohading	isiTswana	7
Port Shepstone	Izingolweni	isiZulu	20
Mthatha	Mandela park	isiXhosa	4
	Gxulu	isiXhosa	5
	Ngangelizwe	isiXhosa	5
	Various other parts of Mthatha	isiXhosa	6

Table 5.2: Sample households showing suburb detail

Table 5.2 shows that the sample from Johannesburg and Port Shepstone had only a single suburb representing the metropolitan area. Mthatha was predominantly represented by three suburbs, and Potchefstroom by two suburbs. The full range of households included just over seven major suburbs. The details matching household to suburb can be found in Appendix 7. A further description of the households was then created to assess the basic demographic information about the sample. This summary allowed the sample to be compared to census data for validity. A summary of the overall household description is found in Table 5.3 and Table 5.4. A more detailed table of the household summary can be found in Appendix 7.

Average HH size	Average number of male residents	Average number of female residents	Average number of adults 15 years and older	Average number of children 14 years and younger
5	2	3	3	2

Table 5.3: Average household size, gender and age composition

Table 5.3 shows that the average household size is just over five people with almost 60% being female. The average household also has over three adults (over fifteen years of age) and just under two children (fourteen years and younger). The head of the household[29] was identified for each household in the sample. Identifying the household head was key to securing accurate financial data as well as accessing the qualitative insights from each household. Table 5.4 provides the overall demographic data on the household heads in the sample.

Gender of HH head	Average age of HH Head
29 Male (36%) 51 Female (67%)	52

Table 5.4: Gender and average age of household heads

Table 5.4 shows that most (67%) of the household heads were female, and that the average age of the household head is just over fifty-one years old. A key question when conducting a random sample is whether the sample of households represents the existing data from the area in question. In this section, the demographics and geographic location of the sample of eighty households were described. The next section verifies the sample makeup in comparison to area data from South Africa's 2011 census.

5.3 Sample validity

The previous section described the sample of households in terms of location and relevant demographics. In this section, the sample was compared to other households in the same geographic region to provide sample validity. Given that non-probability sampling was used in this study, the household sample was compared to South Africa's latest census data. This process was undertaken in order to verify that the sample of households was adequately representative of the BoP households in the area according to the definition applied in this research.

[29] Household head is the primary person responsible for decision making in the household, especially financial decisions. The status is usually held by the person in a household who is running the household and looking after a qualified dependent. In the USA, in order to qualify as head of household, the designated household must be located at the person's home and the person must pay more than 50% of the costs involved in running the household (Schiffman & Kanuk, 2014).

The comparison was made on six household characteristics: household income, household gender makeup, household size, household population group, gender of household head and number of household residents. Household income, size and population group was a necessary comparison as the generalisability of the research would be impacted by the sample having too many outliers (Malhotra, 2010). The gender distribution plays an important role in South African BoP households. The role of females as primary decision-makers in BoP households has been documented (Gumede, 2009; Chikweche et al., 2012).

Although the fieldwork for this study commenced three years after the census data was published, there is no alternative source of comparison data available.

5.3.1 Process of gathering comparison geo-profile data

During the South African 2011 census, StatsSA gathered detailed data on all South African households. The census data is normally released to the public in the form of a report, but much of the detail is left out to protect participant confidentiality (DataFirst, 2017). StatsSA conducts the census in very small areas which they call Enumerator Areas (EAs), in urban areas they are often only one or two blocks. Using the Small Area Layer[30] (SAL) from the 2011 census, the comparison was then made. The following quote from DataFirst (2017:3) describes the SALs in more detail as well as why the data is not published for general release (and accessible only for researchers),

> *"Geographic unit data at enumeration area (EA) is not released with this dataset, to protect respondent confidentiality. A Small Area Layer (SAL) of geography has been created by Statistics SA to fulfil researchers' need for data at more detailed geographic levels. The small area is made up of one or more EA's provided they confirm to certain criteria such as population thresholds, area size, geographical constraints, and land use type. For example, in formal areas the population of the small area must be over 300. Enumeration Areas have been combined with neighbouring EAs with the same characteristics to make up these numbers. When the SALs are mapped blank*

[30] The SAL is better known as the community profile dataset.

spaces will appear which represent EAs that did not meet the criteria of having the same characteristics as surrounding EAs".

When choosing a specific SAL with which to compare the sample data, the area with the largest number of households was chosen for each of the four areas. The households in other suburbs were in neighbouring SALs (i.e. the modal SAL was chosen for the sample geographic area). A table was then created for each 2011 census SAL, which could then be compared to the baseline questionnaire from each household.

Two income adjustments were required in order to compare the sample and StatsSA (2011) data. First, the annual income was derived from the monthly data. In the same way that StatsSA (2011) derives its annual income measurement, the sample annual income was derived by taking the baseline income and multiplying it by 12 months. Second, in order to assess annual household income comparability, the sample incomes were deflated to 2011 amounts. The deflation process involved taking the sample household incomes and deflating them to October 2011 which is when the fieldwork for Census 2011 occurred (StatsSA, 2011). The sample point was chosen to be December 2013 as it was the starting point of the panel and where the majority of baseline questionairres were conducted. To generate a deflator, the price indices from the Headline CPI Index are taken from the two points of interest (StatsSA, 2016). In the case of this study, the October 2011 index (75.5) and the December 2013 index (84.5) produce deflator according to the formula:

$$\text{Deflator} = \frac{75.5}{84.5} = 0.89349112$$

The derived annual household income (from the sample) is then multiplied by the deflator to give the December 2013 income at October 2011 rate. The comparison tables are presented for each area in the four sub-sections that follow.

5.3.2 Alexandra (Johannesburg, Gauteng)

The following tables show the comparison of the Alexandra SAL household data (StatsSA, 2011) to the study sample. The comparison is made on household income data, household gender, household head gender and household size. Each SAL table is accompanied by a graph. After each comparison table, a brief comment on the appropriateness of the sample in the area is made. Table 5.5-6 and Figure 5.1 detail Alexandra's SAL derived annual household income composition as well as those from the sample households for this study

Annual household income	Freq.	Per.
No income	66	13,36%
R 1 - R 4800	8	1,62%
R 4801 - R 9600	19	3,85%
R 9601 - R 19 600	56	11,34%
R 19 601 - R 38 200	118	23,89%
R 38 201 - R 76 400	99	20,04%
R 76 401 - R 153 800	62	12,55%
R 153 801 - R 307 600	17	3,44%
R 307 601 - R 614 400	4	0,81%
R 614 001 - R 1 228 800	0	0,00%
R 1 228 801 - R 2 457 600	0	0,00%
R 2 457 601 or more	0	0,00%
Unspecified	0	0,00%
Total	**494**	**100**

Table 5.5: Annual household income for Alexandra SAL (StatsSA, 2011)

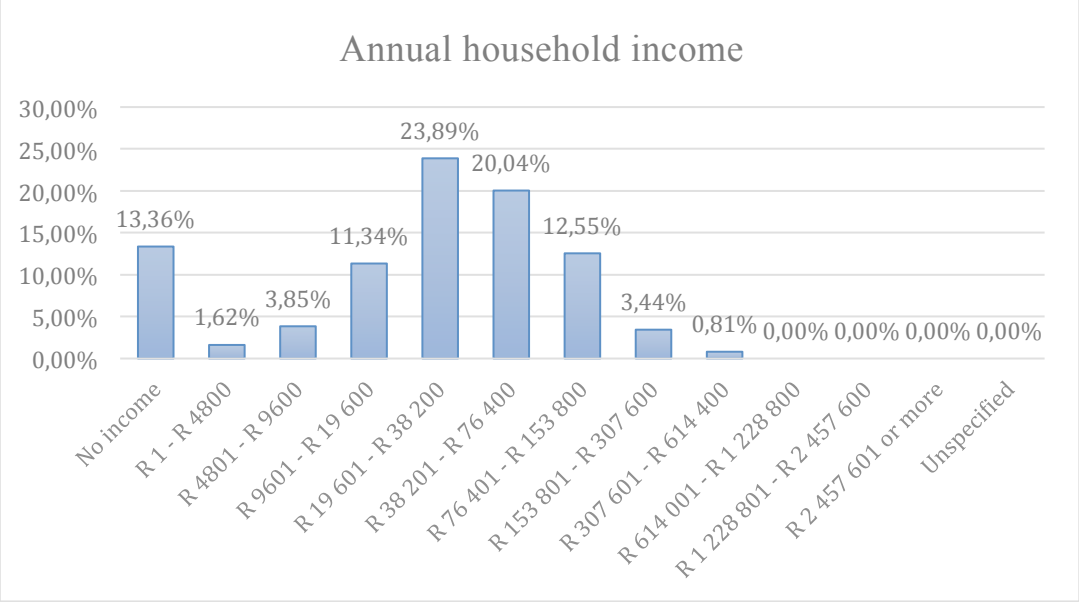

Figure 5.1: Graph of annual household income for Alexandra SAL (StatsSA, 2011)

HHID	Derived Annual household income	Derived Annual household income. Deflated to October 2011
101027	R 8400.00	R 7505.00
101011	R 9120.00	R 8149.00
101020	R 9600.00	R 8578.00
101025	R 14 400.00	R 12 866.00
101018	R 21 600.00	R 19 299.00
101022	R 22 200.00	R 19 836.00
101014	R 27 960.00	R 24 982.00
101012	R 33 600.00	R 30 021.00
101021	R 35 880.00	R 32 058.00
101013	R 41 760.00	R 37 312.00
101023	R 45 000.00	R 40 207.00
101024	R 46 800.00	R 41 815.00
101016	R 49 800.00	R 44 496.00
101010	R 54 720.00	R 48 892.00
101019	R 62 160.00	R 55 539.00
101017	R 74 400.00	R 66 476.00
101028	R 81 600.00	R 72 909.00
101026	R 90 000.00	R 80 414.00
101029	R 135 600.00	R 121 157.00
101015	R 282 000.00	R 251 965.00

Table 5.6: Annual household income for Alexandra area study sample (including column for 2011 deflation)

Comparing the income data from the Alexandra SAL (StatsSA, 2011) to the study sample shows that the sample fits in very well with the area averages. Both the top and bottom results were within the SAL range, and the spread of incomes was similar to the average. The income range is therefore deemed acceptable for the BoP study. Table 5.7-9 and Figure 5.2 detail Alexandra's household gender composition followed by the sample table.

Individual Gender	Freq.	Per.
Male	641	47,45%
Female	710	52,55%
Total	**1351**	**100**

Table 5.7: Individual gender of household residents for Alexandra SAL (StatsSA, 2011)

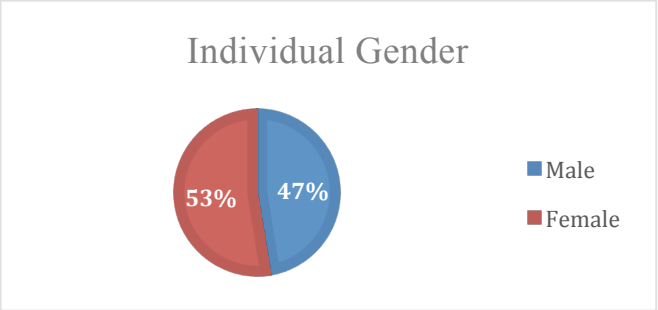

Figure 5.2: Graph of individual gender of household residents for Alexandra SAL (StatsSA, 2011)

HHID	Male (%)	Female (%)
101010	80	20
101011	33	67
101012	50	50
101013	50	50
101014	0	100
101015	33	67
101016	33	67
101017	50	50
101018	50	50
101019	50	50
101020	33	67
101021	80	20
101022	36	64
101023	50	50
101024	67	33
101025	0	100
101026	63	38
101027	33	67
101028	33	67
101029	33	67

Table 5.8: Individual gender of household residents for Alexandra area study sample (as a percentage)

The gender makeup of the sample was often skewed away from the 47% to 53% average in the SAL. The sample households, however were fairly balanced between slight majorities of each gender and only a few households with more than an 80% to 20% split. The fact that there were no clear or consistent biases away from the SAL averages meant that the sample was deemed to be suitable. Table 5.9-10 and Figure 5.3 detail Alexandra's sample household composition and the SAL comparison.

Individual Population group	Freq.	Per.
Black African	1346	99,78%
Coloured	3	0,22%
Indian or Asian	0	0,00%
White	0	0,00%
Other	0	0,00%
Total	**1349**	**100**

Table 5.9: Individual population groups of household residents for Alexandra SAL (StatsSA, 2011)

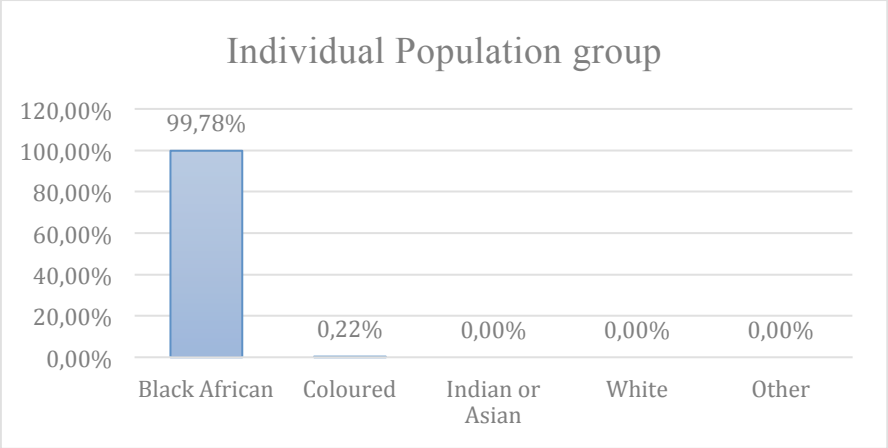

Figure 5.3: Individual population groups of household residents for Alexandra SAL (StatsSA, 2011)

HHID	HH Mean Population
101010	Black African
101011	Black African
101012	Black African
101013	Black African
101014	Black African
101015	Black African
101016	Black African
101017	Black African
101018	Black African
101019	Black African
101020	Black African
101021	Black African
101022	Black African
101023	Black African
101024	Black African
101025	Black African
101026	Black African
101027	Black African
101028	Black African
101029	Black African

Table 5.10: Average (mean) individual population group of sample residents for Alexandra

Almost the whole of the Alexandra SAL (99.78%) is black African according to the 2011 census. The sample for this study was 100% black African which meant that the sample was demographically suitable for the study. Table 5.11-12 and Figure 5.4 detail Alexandra's sample household gender composition.

Gender of Household head	Freq.	Per.
Male	262	53%
Female	188	38%
Unspecified	44	9%
Total	**494**	**100**

Table 5.11: Gender of household head for Alexandra SAL (StatsSA, 2011)

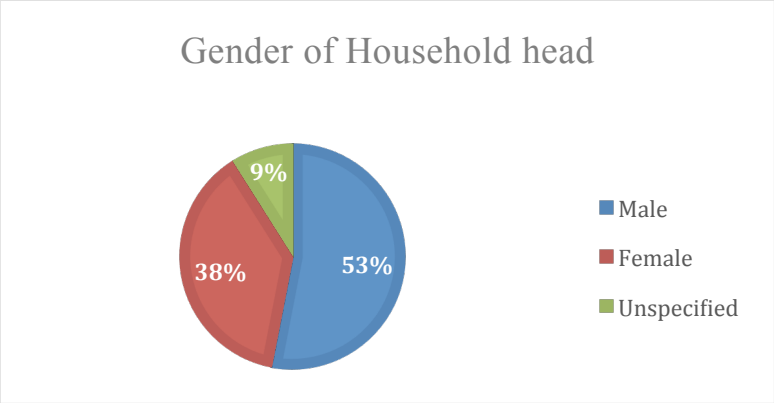

Figure 5.4: Gender of household head for Alexandra SAL (StatsSA, 2011)

HHID	HH Head Gender
101010	Male
101011	Female
101012	Female
101013	Male
101014	Female
101015	Male
101016	Female
101017	Female
101018	Male
101019	Female
101020	Female
101021	Male
101022	Male
101023	Male

101024	Male
101025	Female
101026	Male
101027	Female
101028	Male
101029	Male

Table 5.12: Gender of household head for sample of Alexandra households

The Alexandra SAL indicates that 53% of household heads are male with the rest being either female or unspecified. In the sample for this study, eleven of the twenty households had male heads (55%) with the remainder being female. The ratio of male to female headed households in the sample is therefore well correlated to the SAL data. Table 5.13-14 and Figure 5.5 detail Alexandra's general household sizes.

Household Size	**Freq.**	**Per.**
1 Resident	124	28%
2 Residents	108	24%
3 Residents	78	18%
4 Residents	59	13%
5 Residents	37	8%
6 Residents	16	4%
7 Residents	10	2%
8 Residents	6	1%
9 Residents	1	0%
10 Residents	10	2%
Total	**448**	**100**

Table 5.13: Household size for Alexandra SAL (StatsSA, 2011)

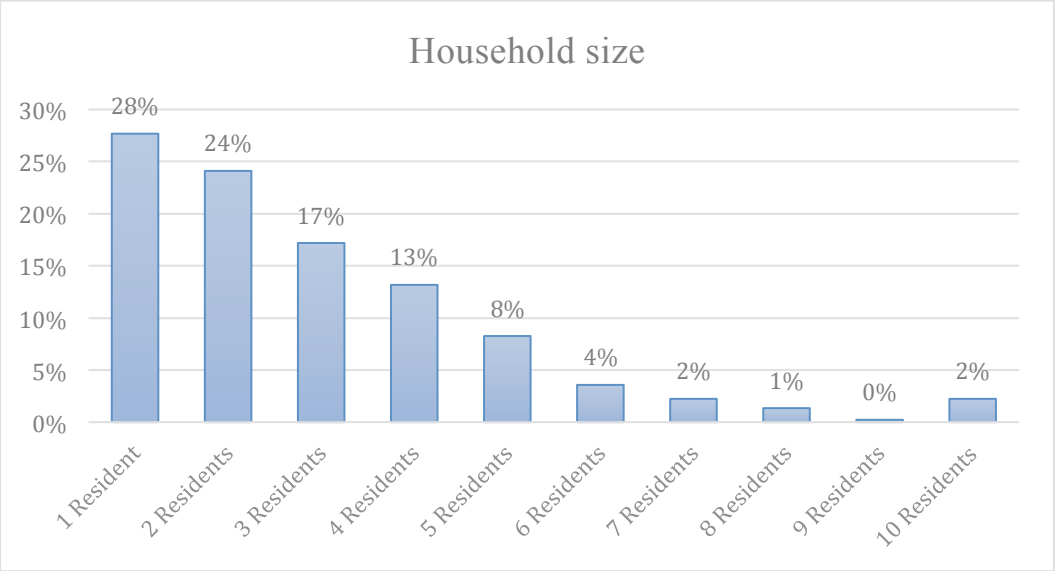

Figure 5.5: Household size for Alexandra SAL (StatsSA, 2011)

HHID	HH Size
101010	5
101011	3
101012	4
101013	4
101014	4
101015	6
101016	6
101017	4
101018	6
101019	4
101020	3
101021	5
101022	11
101023	4
101024	3
101025	4
101026	8
101027	3
101028	3
101029	3

Table 5.14: Household size for Alexandra area study sample of households

The majority of households (65%) in the sample had between three and four residents which was slightly higher than the SAL data which stated that only thirty percent of residents were on households of that size. The SAL data showed that the majority of households (52%) were between one and two residents. The fact that the SAL data did show a significant spread of household sizes (up to six residents) means that while not exactly correlating, the sample of households was also representative of a spread of household sizes.

In the next sub-section, the comparison between the SAL data (StatsSA, 2011) and the Mthatha sample of households is made. As with the Alexandra sample, the data reveals a good representation in the sample.

5.3.3 Mthatha central (Mthatha, Eastern Cape)

The following tables show the comparison of the Mthatha SAL household data (StatsSA, 2011) to the study sample. The comparison is made on household income data, household gender, household head gender and household size. Each SAL table is accompanied by a graph. After each comparison table, a brief comment on the appropriateness of the sample in the area is made.

Annual household income	Freq.	Per.
No income	74	49,33%
R 1 - R 4800	6	4,00%
R 4801 - R 9600	12	8,00%
R 9601 - R 19 600	28	18,67%
R 19 601 - R 38 200	19	12,67%
R 38 201 - R 76 400	5	3,33%
R 76 401 - R 153 800	2	1,33%
R 153 801 - R 307 600	3	2,00%
R 307 601 - R 614 400	1	0,67%
R 614 001 - R 1 228 800	0	0,00%
R 1 228 801 - R 2 457 600	0	0,00%
R 2 457 601 or more	0	0,00%
Unspecified	0	0,00%
Total	**150**	**100**

Table 5.15: Annual household income for Mthatha SAL (StatsSA, 2011)

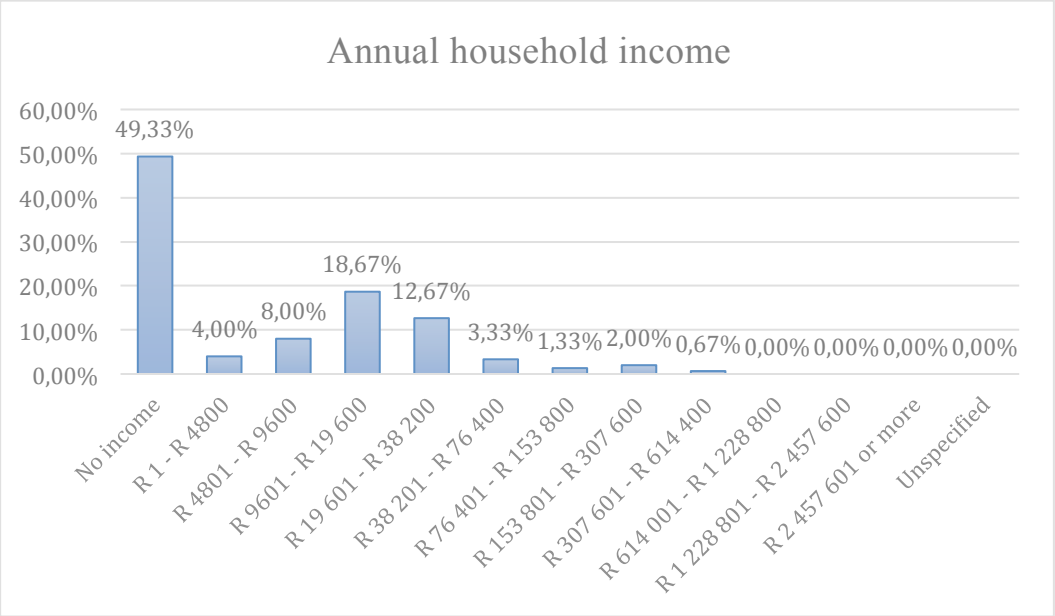

Figure 5.6: Graph of annual household income for Mthatha SAL (StatsSA, 2011)

HHID	Derived Annual household income	Derived Annual household income. Deflated to October 2011
201013	R3624.00	R3238.00
201010	R6720.00	R6004.00
201015	R14 400.00	R12 866.00
201016	R14 400.00	R12 866.00
201021	R16 560.00	R14 796.00
201012	R17 640.00	R15 761.00
201019	R20 640.00	R18 442.00
201014	R29 880.00	R26 698.00
201022	R30 960.00	R27 662.00
201028	R30 960.00	R27 662.00
201017	R31 200.00	R27 877.00
201023	R31 200.00	R27 877.00
201011	R31 440.00	R28 091.00
201027	R32 400.00	R28 949.00
201026	R39 600.00	R35 382.00
201024	R40 800.00	R36 454.00
201029	R40 800.00	R36 454.00
201020	R48 000.00	R42 888.00
201018	R64 800.00	R57 898.00
201025	R77 640.00	R69 371.00

Table 5.16: Annual household income for Mthatha area study sample (including column for 2011 deflation)

Comparing the income data from the Mthatha SAL (StatsSA, 2011) to the study sample shows that the sample income is higher than the area averages. The Mthatha SAL reports a very high percentage of households with no income. To discuss the reasons for this are not within the scope of this comparison analysis. Owing to this study needing a sample of households that do have income and expenditure (for financial comparison) the no-income households were excluded from the sampling process. Once comparing the sample with the SAL data for households with income, the correlation is very strong. The income range is therefore deemed acceptable for the BoP study. Table 5.17 and Figure 5.7 detail Mthatha's household gender composition followed by the sample in Table 5.18.

Individual Gender	Freq.	Per.
Male	159	46,76%
Female	181	53,24%
Total	**340**	**100**

Table 5.17: Individual gender of household residents for Mthatha SAL (StatsSA, 2011)

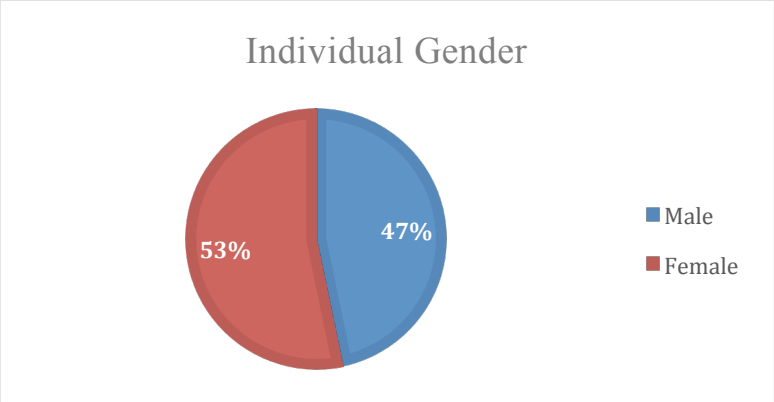

Figure 5.7: Graph of individual gender of household residents for Mthatha SAL (StatsSA, 2011)

HHID	Male (%)	Female (%)
201010	60	40
201011	17	83
201012	40	60
201013	0	100
201014	30	70
201015	0	100
201016	60	40
201017	0	100
201018	60	40
201019	0	100

201020	25	75
201021	33	67
201022	50	50
201023	56	44
201024	60	40
201025	20	80
201026	0	100
201027	56	44
201028	75	25
201029	33	67

Table 5.18: Individual gender of household residents for the Mthatha area study sample (as a percentage)

While some households were female only, the gender makeup of the sample was very similar to the 47% (male) to 53% (female) average in the SAL. The sample households with both genders, however, were fairly balanced between slight majorities of each gender. Overall, there was no reason to conclude that the sample was significantly biased away from the SAL averages (table 5.19), meaning that the sample was deemed to be suitable.

Individual Population group	Freq.	Per.
Black African	340	100,00%
Coloured	0	0,00%
Indian or Asian	0	0,00%
White	0	0,00%
Other	0	0,00%
Total	**340**	**100**

Table 5.19: Individual population groups of household residents for Mthatha SAL (StatsSA, 2011)

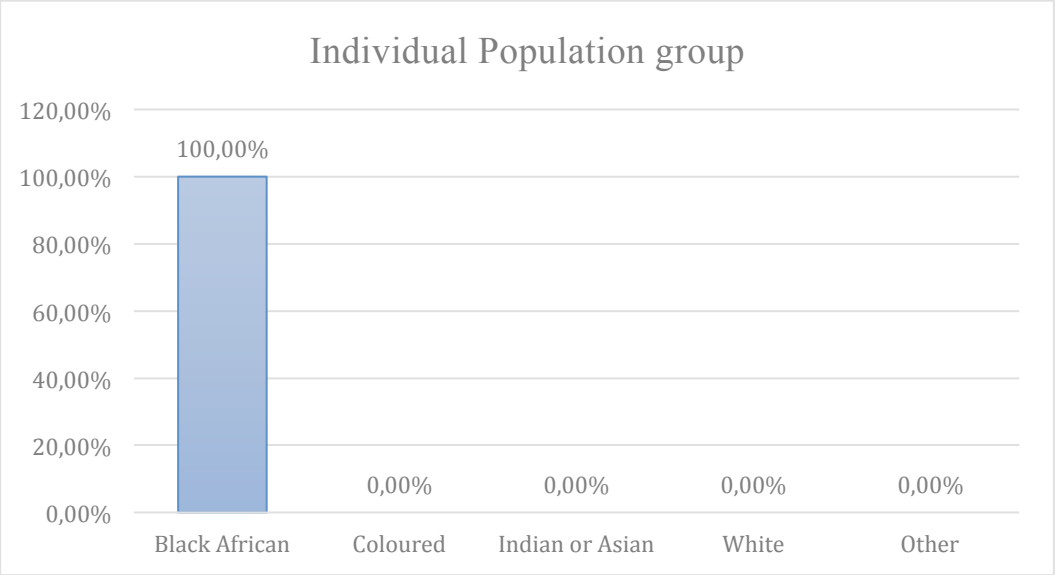

Figure 5.8: Individual population groups of household residents for Alexandra SAL (StatsSA, 2011)

HHID	HH Mean Population
201010	Black African
201011	Black African
201012	Coloured
201013	Black African
201014	Black African
201015	Black African
201016	Black African
201017	Black African
201018	Black African
201019	Black African
201020	Black African
201021	Black African
201022	Black African
201023	Black African
201024	Black African
201025	Black African
201026	Black African
201027	Black African
201028	Black African
201029	Black African

Table 5.20: Average (mean) individual population group of sample area residents for Mthatha

Almost the whole of the Mthatha SAL (99.78%) is black African according to the 2011 census. The sample for this study was also almost exclusively black African

(with only one exception), which means that the sample was demographically suitable for the study.

Gender of Household head	Freq.	Per.
Male	78	52%
Female	72	48%
Unspecified	0	0%
Total	**150**	**100**

Table 5.21: Gender of household head for Mthatha SAL (StatsSA, 2011)

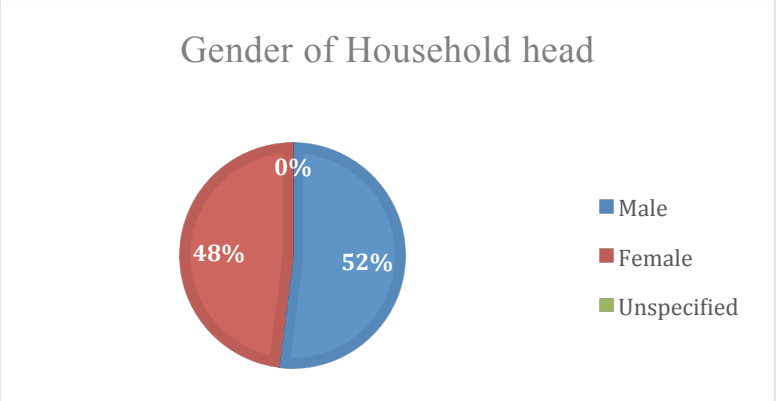

Figure 5.9: Gender of household head for Mthatha SAL (StatsSA, 2011)

HHID	HH Head Gender
201010	Female
201011	Male
201012	Male
201013	Female
201014	Female
201015	Female
201016	Female
201017	Female
201018	Female
201019	Female
201020	Female
201021	Female
201022	Male
201023	Female
201024	Female
201025	Female
201026	Female

201027	Male
201028	Male
201029	Female

Table 5.22: Gender of household head for sample of Mthatha households

The Mthatha SAL indicates that 52% of household heads are male with the rest being female. In the sample for this study, only 25% of the twenty households had male heads, with the remainder being female. While the ratio of male to female headed households in the sample is different to the SAL data, the difference is not significant and the observations in the income and expenditure findings did not show any incongruity with the findings in other areas.

Household Size	Freq.	Per.
1 Resident	95	63%
2 Residents	23	15%
3 Residents	8	5%
4 Residents	3	2%
5 Residents	4	3%
6 Residents	6	4%
7 Residents	2	1%
8 Residents	1	1%
9 Residents	6	4%
10 Residents	2	1%
Total	**150**	**100**

Table 5.23: Household size for Mthatha SAL (StatsSA, 2011)

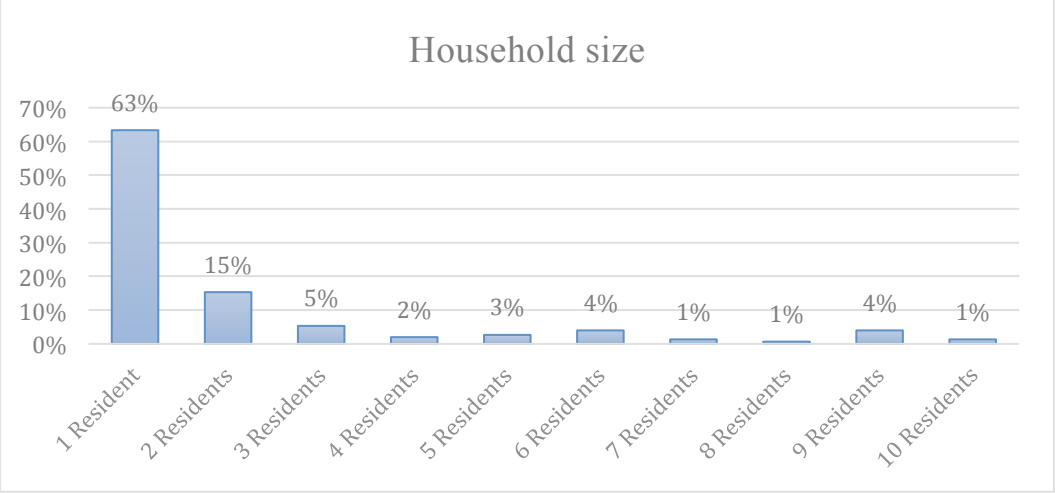

Figure 5.10: Household size for Mthatha SAL (StatsSA, 2011)

HHID	HH Size
201010	5
201011	6
201012	10
201013	2
201014	10
201015	5
201016	5
201017	3
201018	5
201019	6
201020	8
201021	6
201022	2
201023	16
201024	5
201025	5
201026	6
201027	9
201028	4
201029	6

Table 5.24: Household size for Mthatha sample of households

According to the Mthatha SAL data, the majority of households (63%) in the comparison area were single resident households. When removing the single resident households, the household size was relatively spread from two to ten residents. The study sample had some very large households, and most were between five and six residents, which was higher than the SAL data average. The fact that the SAL data did show a significant spread of household sizes (up to ten residents) means that while not exactly correlating, the sample of households was also representative of a spread of household sizes. The sample did have one household with sixteen members. This is an outlier from the SAL data, although it was a useful inclusion for diversity. In the next sub-section, the comparison between the SAL data (StatsSA, 2011) and the Port Shepstone (Izingolweni) sample of households is made.

5.3.4 Port Shepstone (Izingolweni, KwaZulu Natal)

The following tables show the comparison of the Port Shepstone SAL household data (StatsSA, 2011) to the study sample. The comparison is made on household income

data, household gender, household head gender and household size. Each SAL table is accompanied by a graph. After each comparison table, a brief comment on the appropriateness of the sample in the area is made.

Annual household income	Freq.	Per.
No income	16	5,69%
R 1 - R 4800	22	7,83%
R 4801 - R 9600	28	9,96%
R 9601 - R 19 600	67	23,84%
R 19 601 - R 38 200	77	27,40%
R 38 201 - R 76 400	35	12,46%
R 76 401 - R 153 800	25	8,90%
R 153 801 - R 307 600	10	3,56%
R 307 601 - R 614 400	1	0,36%
R 614 001 - R 1 228 800	0	0,00%
R 1 228 801 - R 2 457 600	0	0,00%
R 2 457 601 or more	0	0,00%
Unspecified	0	0,00%
Total	**281**	**100**

Table 5.25: Annual household income for Port Shepstone SAL (StatsSA, 2011)

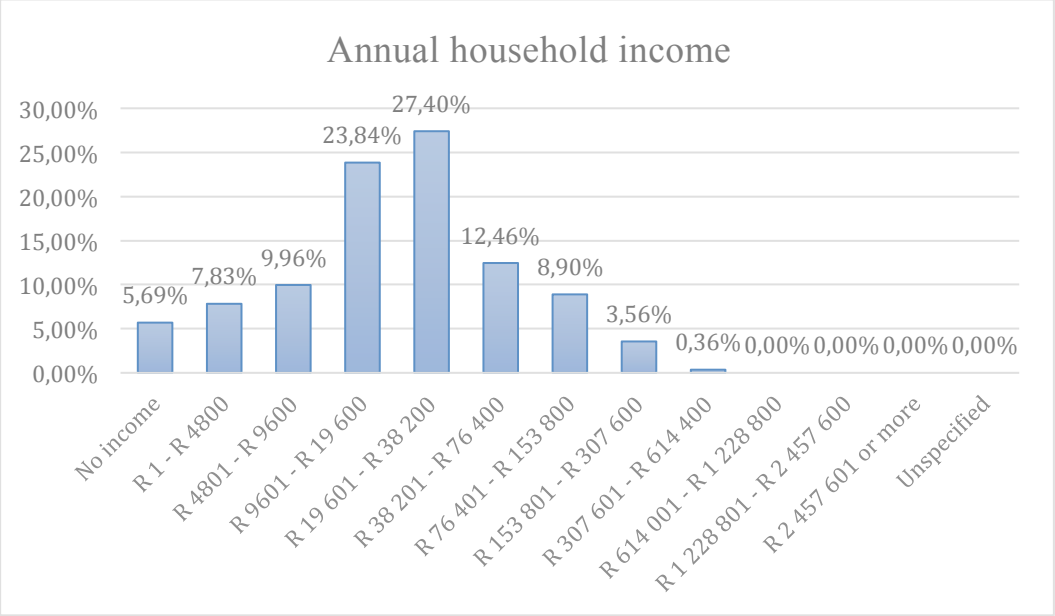

Figure 5.11: Graph of annual household income for Port Shepstone SAL (StatsSA, 2011)

HHID	Derived Annual household income	* Derived Annual household income. Deflated to October 2011
521010	R7200.00	R6433.00
521017	R12 000.00	R10 722.00

521014	R13 200.00	R11 794.00
521016	R14 400.00	R12 866.00
521027	R14 400.00	R12 866.00
521024	R15 120.00	R13 510.00
521029	R16 800.00	R15 011.00
521019	R22 320.00	R19 943.00
521013	R22 800.00	R20 372.00
521015	R24 000.00	R21 444.00
521011	R27 600.00	R24 660.00
521028	R28 320.00	R25 304.00
521026	R31 200.00	R27 877.00
521025	R33 360.00	R29 807.00
521021	R36 240.00	R32 380.00
521022	R36 720.00	R32 809.00
521020	R40 800.00	R36 454.00
521018	R41 040.00	R36 669.00
521012	R63 600.00	R56 826.00
521023	R63 600.00	R56 826.00

Table 5.26: Annual household income for Port Shepstone study sample (including column for 2011 deflation)

Comparing the income data from the Port Shepstone SAL (StatsSA, 2011) to the study sample shows that the sample fits in comfortably into the area averages. Both the top and bottom results were within the SAL range, and the spread of incomes was similar to the average. The income range is therefore deemed acceptable for the BoP study. Table 5.27 and Figure 5.12 detail the Port Shepstone household gender composition and these are followed by the sample table.

Individual Gender	**Freq.**	**Per.**
Male	528	45,17%
Female	641	54,83%
Total	**1169**	**100**

Table 5.27: Individual gender of household residents for Port Shepstone SAL (StatsSA, 2011)

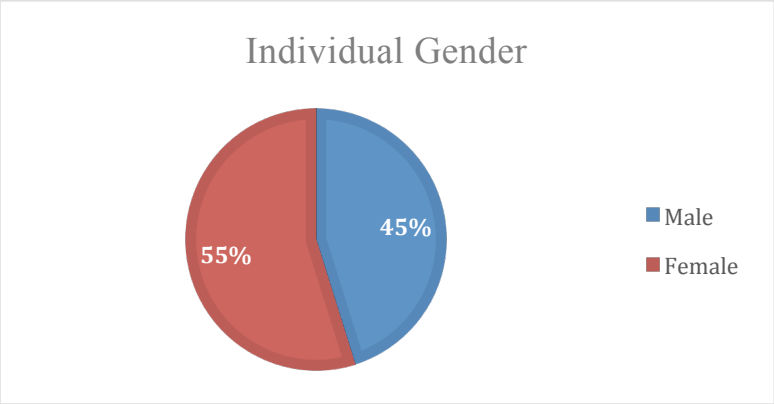

Figure 5.12: Graph of individual gender of household residents for Port Shepstone SAL (StatsSA, 2011)

HHID	Male (%)	Female (%)
521010	33	67
521011	75	25
521012	33	67
521013	43	57
521014	50	50
521015	0	100
521016	63	38
521017	33	67
521018	50	50
521019	40	60
521020	40	60
521021	33	67
521022	57	43
521023	33	67
521024	20	80
521025	50	50
521026	50	50
521027	25	75
521028	40	60
521029	25	75

Table 5.28: Individual gender of household residents for study sample (as a percentage)

The gender makeup of the sample was often skewed away from the 55% (female) to 44% (male) area average in the SAL. The sample households, however were fairly balanced between slight majorities of each gender and only a few households with more than a 75% bias to one gender. The fact that there were no clear or consistent biases away from the SAL averages meant that the sample was deemed to be suitable.

Individual Population group	Freq.	Per.
Black African	1169	100,00%
Coloured	0	0,00%
Indian or Asian	0	0,00%
White	0	0,00%
Other	0	0,00%
Total	**1169**	**100**

Table 5.29 Individual population groups of household residents for Port Shepstone SAL (StatsSA, 2011)

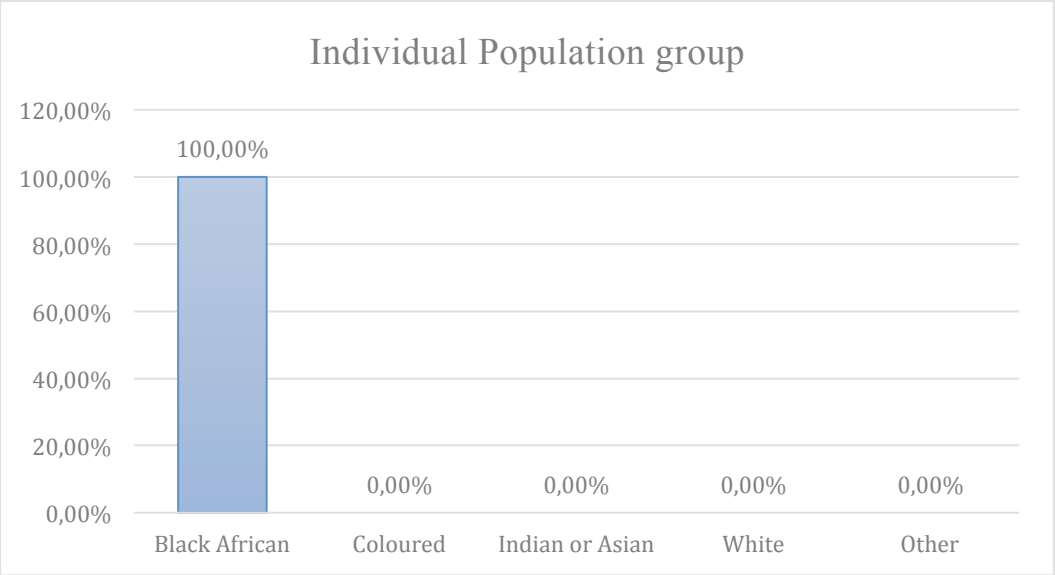

Figure 5.13: Individual population groups of household residents for Port Shepstone SAL (StatsSA, 2011)

HHID	HH Mean Population
521010	Black African
521011	Black African
521012	Black African
521013	Black African
521014	Black African
521015	Black African
521016	Black African
521017	Black African
521018	Black African
521019	Black African
521020	Black African
521021	Black African
521022	Black African

521023	Black African
521024	Black African
521025	Black African
521026	Black African
521027	Black African
521028	Black African
521029	Black African

Table 5.30: Average (mean) individual population group of sample residents for Port Shepstone

According to the Port Shepstone SAL, the whole area is made up of black African residents (100%). The sample for this study was also 100% black African in this area, which meant that the sample was demographically suitable for the study.

Gender of Household head	Freq.	Per.
Male	128	46%
Female	152	54%
Unspecified	1	0%
Total	**281**	**100**

Table 5.31: Gender of household head for Port Shepstone SAL (StatsSA, 2011)

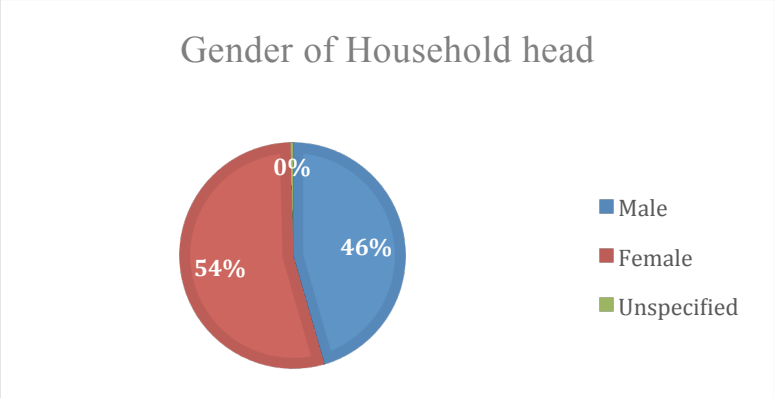

Figure 5.14: Gender of household head for Port Shepstone SAL (StatsSA, 2011)

HHID	HH Head Gender
521010	Female
521011	Male
521012	Female
521013	Female
521014	Female
521015	Female
521016	Male

521017	Female
521018	Male
521019	Female
521020	Male
521021	Male
521022	Female
521023	Male
521024	Female
521025	Female
521026	Male
521027	Female
521028	Female
521029	Female

Table 5.32: Gender of household head for sample of Port Shepstone households

The Port Shepstone SAL indicates that 54% of household heads are female with the rest being male (with only one unspecified). In the sample for this study, eleven of the twenty households had female heads (55%) with the remainder being male. The ratio of male to female headed households in the sample is therefore well correlated to the SAL data.

Household Size	**Freq.**	**Per.**
1 Resident	77	28%
2 Residents	26	9%
3 Residents	39	14%
4 Residents	37	13%
5 Residents	34	12%
6 Residents	19	7%
7 Residents	13	5%
8 Residents	10	4%
9 Residents	7	3%
10 Residents	17	6%
Total	**279**	**100**

Table 5.33: Household size for Port Shepstone SAL (StatsSA, 2011)

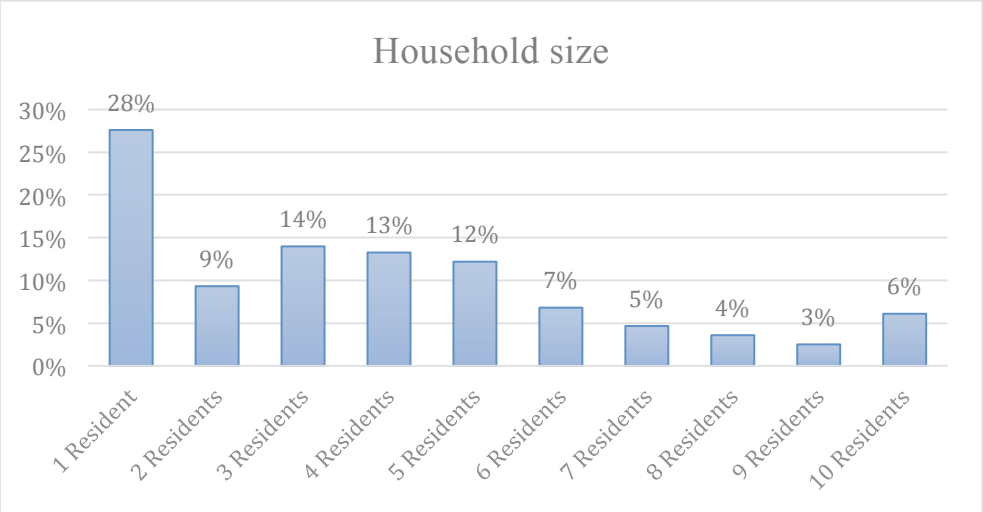

Figure 5.15: Household size for Port Shepstone SAL (StatsSA, 2011)

HHID	HH Size
521010	3
521011	4
521012	6
521013	7
521014	4
521015	6
521016	8
521017	3
521018	4
521019	5
521020	5
521021	3
521022	7
521023	3
521024	5
521025	10
521026	4
521027	4
521028	5
521029	4

Figure 5.34: Household size for Port Shepstone sample of households

The majority of households (80%) in the sample had between three and six residents which was similar to the SAL data for Port Shepstone if single resident households were removed. The SAL data showed that 28% of households were single resident homes. As in the other areas discussed in the sub-sections above, the single resident

bias in the SAL data was not deemed to be significant. The fact that the SAL data did show a significant spread of household sizes (up to ten residents) means that while not exactly correlating, the sample of households was also representative of a spread of household sizes.

In the next sub-section, the comparison between the SAL data (StatsSA, 2011) and the Potchefstroom sample of households is made. Similarly to the three sample areas discussed already, the data reveals a good representation in the sample.

5.3.5 Potchefstroom Central (Potchefstroom, North West Province)

The following tables show the comparison of the Potchefstroom SAL household data (StatsSA, 2011) to the study sample. The comparison is made on household income data, household gender, household head gender and household size. Each SAL table is accompanied by a graph. After each comparison table, a brief comment on the appropriateness of the sample in the area is made.

Description	Freq.	Per.
No income	20	11,36%
R 1 - R 4800	7	3,98%
R 4801 - R 9600	18	10,23%
R 9601 - R 19 600	43	24,43%
R 19 601 - R 38 200	46	26,14%
R 38 201 - R 76 400	36	20,45%
R 76 401 - R 153 800	5	2,84%
R 153 801 - R 307 600	1	0,57%
R 307 601 - R 614 400	0	0,00%
R 614 001 - R 1 228 800	0	0,00%
R 1 228 801 - R 2 457 600	0	0,00%
R 2 457 601 or more	0	0,00%
Unspecified	0	0,00%
Total	**176**	**100**

Table 5.35: Annual household income for Potchefstroom SAL (StatsSA, 2011)

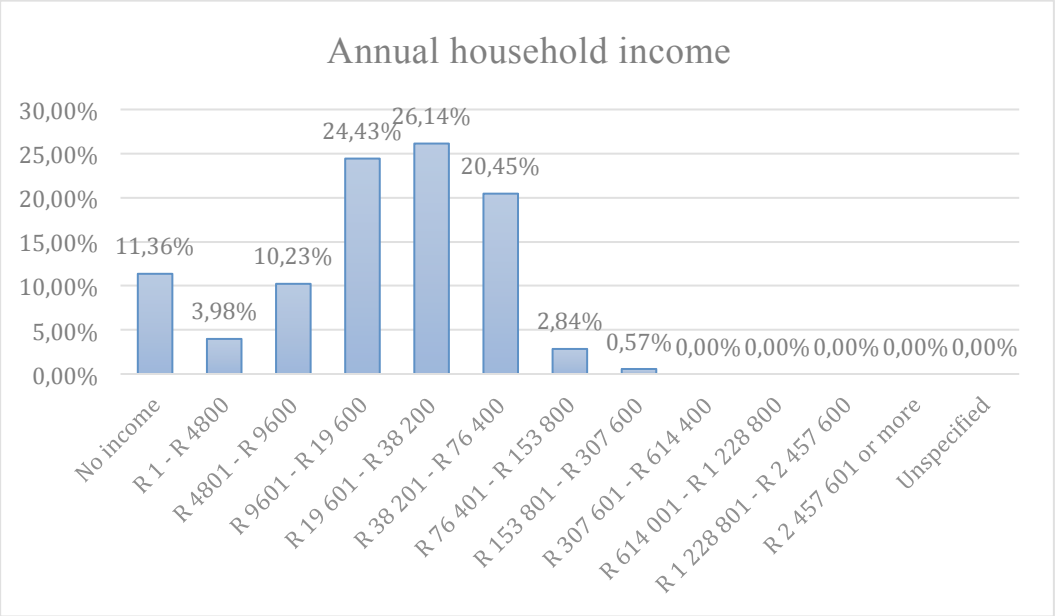

Figure 5.17: Graph of annual household income for Potchefstroom SAL (StatsSA, 2011)

HHID	Derived Annual household income	* Derived Annual household income. Deflated to October 2011
601020	R13 200.00	R11 794.00
601017	R15 600.00	R13 938.00
601013	R16 200.00	R14 475.00
601025	R16 320.00	R14 582.00
601014	R21 600.00	R19 299.00
601023	R21 600.00	R19 299.00
601011	R23 520.00	R21 015.00
601012	R23 760.00	R21 229.00
601015	R25 320.00	R22 623.00
601027	R28 800.00	R25 733.00
601022	R32 400.00	R28 949.00
601021	R36 600.00	R32 702.00
601024	R36 720.00	R32 809.00
601016	R37 200.00	R33 238.00
601028	R41 040.00	R36 669.00
601026	R42 000.00	R37 527.00
601010	R48 120.00	R42 995.00
601019	R50 400.00	R45 032.00
601029	R50 400.00	R45 032.00
601018	R55 920.00	R49 964.00

Table 5.36: Annual household income for Potchefstroom study sample (including column for 2011 deflation)

Comparing the income data from the Potchefstroom SAL (StatsSA, 2011) to the study sample shows that the sample fits in very well to the area averages. Both the top and bottom results were within the SAL range, and the spread of incomes was similar to the average. No sample households fell into the top 20% range in the SAL data, but for a BoP study, this is considered acceptable. The income range is therefore deemed acceptable for the BoP study. Table 5.37 and Figure 5.18 detail the Potchefstroom household gender composition and these are followed by the sample table.

Individual Gender	Freq.	Per.
Male	401	48,61%
Female	424	51,39%
Total	**825**	**100**

Table 5.37: Individual gender of household residents for Potchefstroom SAL (StatsSA, 2011)

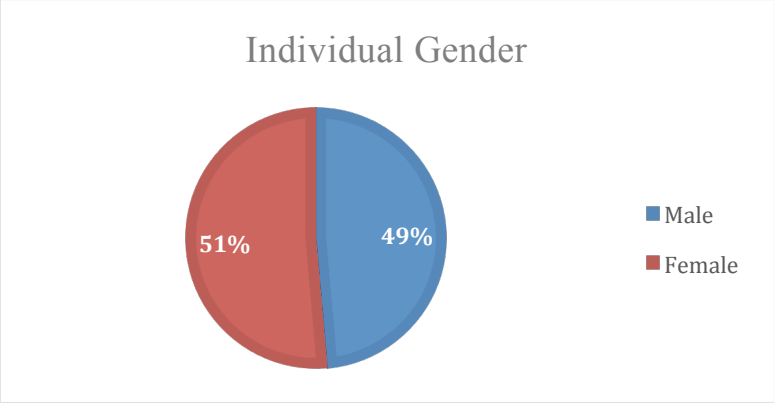

Figure 5.18: Graph of individual gender of household residents for Potchefstroom SAL (StatsSA, 2011)

HHID	Male (%)	Female (%)
601010	67	33
601011	33	67
601012	0	100
601013	60	40
601014	25	75
601015	0	100
601016	50	50
601017	50	50
601018	40	60
601019	60	40
601020	50	50
601021	67	33
601022	75	25

601023	50	50
601024	20	80
601025	67	33
601026	100	0
601027	17	83
601028	50	50
601029	60	40

Table 5.38: Individual gender of household residents for study sample (as a percentage)

The gender makeup of the sample was often skewed away from the 49% (male) to 51% (female) average in the SAL. The sample households, however, were fairly balanced between slight majorities of each gender and only a few households with more than an 80% to 20% split. The fact that there were no clear or consistent biases away from the SAL averages meant that the sample was deemed to be suitable.

Individual Population group	Freq.	Per.
Black African	327	39,64%
Coloured	496	60,12%
Indian or Asian	0	0,00%
White	1	0,12%
Other	1	0,12%
Total	**825**	**100**

Table 5.39: Individual population groups of household residents for Potchefstroom SAL (StatsSA, 2011)

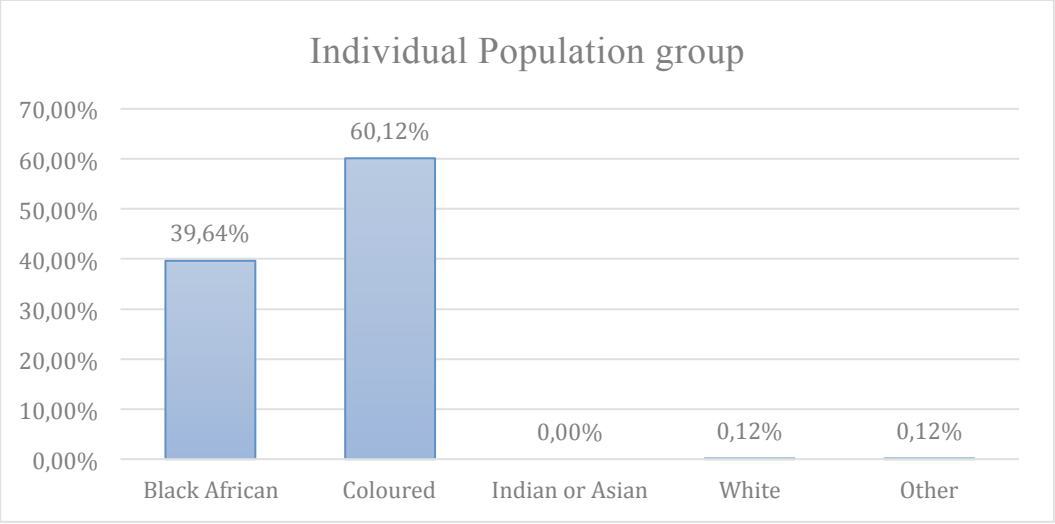

Figure 5.19: Individual population groups of household residents for Potchefstroom SAL (StatsSA, 2011)

HHID	HH Mean Population
601010	Black African
601011	Black African
601012	Black African
601013	Coloured
601014	Black African
601015	Black African
601016	Black African
601017	Black African
601018	Black African
601019	Black African
601020	Black African
601021	Black African
601022	Black African
601023	Black African
601024	Black African
601025	Black African
601026	Black African
601027	Black African
601028	Black African
601029	Black African

Table 5.40: Average (mean) individual population group of sample residents for Potchefstroom

The Potchefstroom SAL data shows a 60% (coloured) to 40% (black African) split in the household population according to the 2011 census. The sample for this study was almost exclusively black African, with the exception of one household that was coloured. While the sample was not exactly representative of the study, a significant portion of the population in the area is black African, and due to time, budgetary and fieldworker constraints, this issue was not resolved. Due to the fact that black Africans are well represented in the area, as well as the absence of any skew away from the norm (coloured or black African), the sample was demographically suitable for a non-probability study of this nature.

Gender of Household head	Freq.	Per.
Male	106	60%
Female	69	39%
Unspecified	1	1%
Total	**176**	**100**

Table 5.41: Gender of household head for Potchefstroom SAL (StatsSA, 2011)

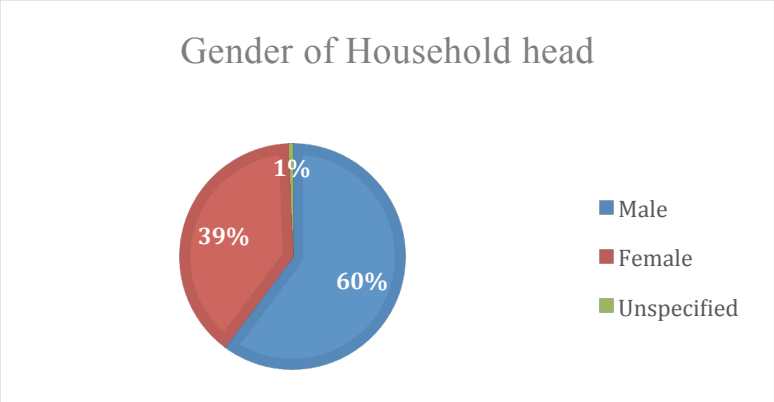

Figure 5.20: Gender of household head for Potchefstroom SAL (StatsSA, 2011)

HHID	HH Head Gender
601010	Female
601011	Female
601012	Female
601013	Male
601014	Female
601015	Female
601016	Male
601017	Female
601018	Male
601019	Female
601020	Female
601021	Female
601022	Female
601023	Male
601024	Female
601025	Male
601026	Male
601027	Female
601028	Female
601029	Female

Table 5.42: Gender of household head for sample of Potchefstroom households

The Potchefstroom SAL indicates that 60% of household heads are male with the rest being either female (39%) or unspecified (1%). In the sample for this study, six of the twenty households had male heads (30%) with the remainder being female. The ratio of male to female headed households in the sample is therefore slightly skewed away

from the average, but not significantly enough to impact seriously the correlation to the SAL data.

Household Size	Freq.	Per.
1 Resident	28	16%
2 Residents	33	19%
3 Residents	25	14%
4 Residents	32	18%
5 Residents	24	14%
6 Residents	11	6%
7 Residents	9	5%
8 Residents	4	2%
9 Residents	3	2%
10 Residents	7	4%
Total	**176**	**100**

Table 5.43: Household size for Potchefstroom SAL (StatsSA, 2011)

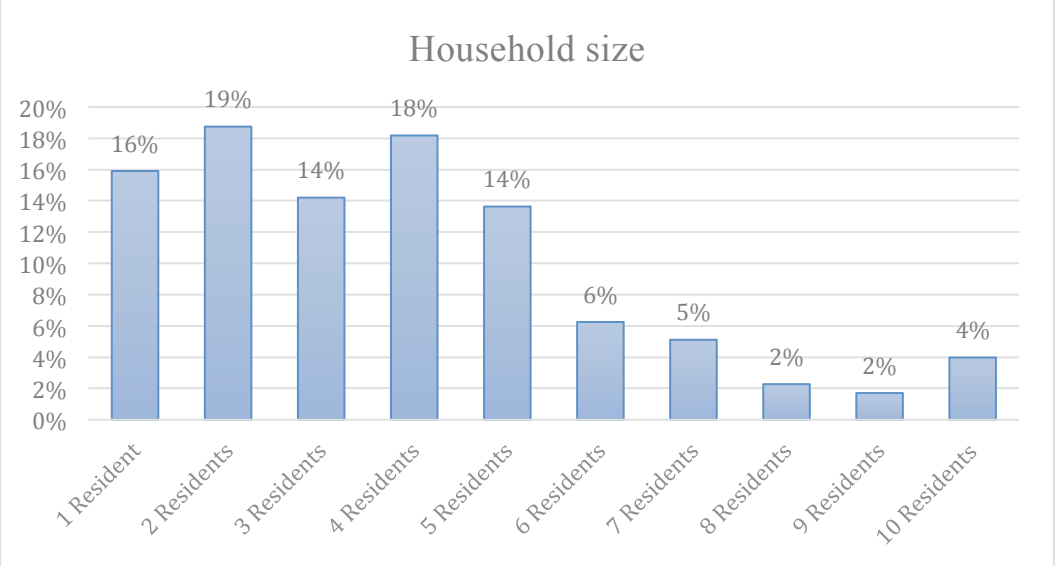

Figure 5.21: Household size for Potchefstroom SAL (StatsSA, 2011)

HHID	HH Size
601010	6
601011	3
601012	4
601013	5
601014	4
601015	3
601016	6
601017	2

601018	5
601019	5
601020	4
601021	6
601022	4
601023	4
601024	5
601025	3
601026	2
601027	6
601028	8
601029	5

Table 5.44: Household size for Potchefstroom sample of households

The household size in the Potchefstroom SAL shows a relatively even spread between one and five residents. This correlates well to the study sample household sizes, which had only five households with more than five residents, and the rest falling between the two to five range. The sample of households was also representative of a spread of household sizes. In the next sub-section, some general comments are made about the overall suitability of the sample to represent the geographic areas in which they are situated. Following that, the chapter proceeds with a description of the waves.

5.3.6 Overall observation

After an evaluation and SAL comparison of the study household sample in each of the four target areas, the following conclusions can be drawn. First, while the sample is not perfectly correlated to the averages for the area, they are well within the boundaries of the SAL data. Most of the data showed some skewing to either side of the average data, but this is normal when comparing nominal data to averages. Second, there were very few outliers to the SAL data from each area. An example was the instances where household size was large in comparison to the SAL averages. These instances were very few and did not impact the validity of the household to be part of the sample.

The sample and comparisons in this section were analysed by a paid consultant[31] who works for the NIDS at the University of Cape Town. The consultant checked all of the data and SAL comparisons presented in the findings in order to corroborate that the sample was an adequate representation of the households in the sample area.

5.4 Wave description

The above section outlined the demographic and geographic description of the sample. The next two sub-sections first describe the financial diary panel followed by the interviews. While the data collection process provided sufficient data to answer the research question, there were a number of setbacks along the way. Although the setbacks were elaborated on in the methodology section, some additional insights into the data collection process are also noted. In this section, the waves of financial diary data collection are described, followed by the interviews.

5.4.1 Description of fieldwork diary collection waves

The aim of this study was to collect a panel of financial diary and qualitative data in order to gain a better understanding of expenditure category trade-off. The timing of the study in its planning stage targeted four consecutive monthly waves. These waves were to run from December 2013 to March 2014. Due to timing setbacks (as discussed in Chapter Four), the waves had a staggered start with Johannesburg and Mthatha starting in December 2013, Potchefstroom starting January 2014, and Port Shepstone starting in February 2014 as seen in Table 5.42.

Area	December '13	January '14	February '14	March '14	April '14	May '14
Johannesburg	W1	W2	W3	W4		
Port Shepstone			W1	W2	W3	W4
Potchefstroom		W1	W2	W3	W4	
Mthatha	W1	W2	W3	W4		

Table 5.45: Staggering of fieldwork waves across months and areas.

In addition to the staggered start, not every fieldworker was able to complete each wave as expected. Despite the value of the methodology in directly addressing the

[31] The name and contact details of the consultant can be obtained from the author should this be required

research question, the limitations of a monthly panel of financial diaries are discussed at length in Chapter Four. Household attrition and non-response were mitigated as much as possible; only thirteen of the households were able to complete four consecutive waves. In addition, some complete months were skipped due to timing of collection and timing of supervisory training visits. Of the proposed 310 possible household responses, 210 were completed to a satisfactory level. The schedule of completed financial diaries is found in Appendix 8. On an aggregate level, wave one was the best-achieved wave with wave two being the least successful as observed in Table 5.46.

	Wave 1	Wave 2	Wave 3	Wave 4
Number of completed diaries	77	35	47	51

Table 5.46: Number of completed diaries per wave (all households)

One key reason for a drop in response in wave two is that both the later added sites (Potchefstroom and Port Shepstone) had low wave two participation. The fieldworkers were still being trained after an initial round of quality checks (from wave one), and the timing of feedback did not allow for a full month. Johannesburg struggled with both fieldworker and participating household motivation in wave three of the fieldwork. Potchefstroom also had a poor response for the final wave. The decision to replace more fieldworkers was rejected due to timing constraints (starting a fresh sample so late in the study) and budget constraints (additional field visit and training). In total, 210 completed household questionnaires were deemed to be sufficiently large in order to answer the research question. The sub-section that follows explains the households that participated in the interview phase of the research.

5.4.2 Description of fieldwork interview waves

The above section details the actual sample of household diaries collected. This section discusses the interview phase of the research. Detailed descriptions of the households (size, location, diary summary data) is available in the household data

book[32]. The participating households often struggled with interview fatigue. The fieldworkers reported that participating households were not always receptive to visits and would ask fieldworkers to return at later dates. Nonetheless, a set of translated interview transcripts were available for analysis.

The next three sections detail the results of both the financial diaries and interviews. Income analysis is first, followed by expenditure analysis and then the qualitative findings.

5.5 Income analysis

While the study focuses on expenditure, income is a key variable to consider as it has a direct impact on household expenditure. In this section, a description of the data collected on income is described and analysed for trends. Of the eighty households surveyed over the four waves, 163 data points were collected (See Appendix 9 for details of each household). Of the data points, a total of R517 238 was reported in total income with an average of R3173.25 per month for each household. Each area had a different average as summarized by Table 5.47 below.

Area	Total monthly income data points	Average monthly income for the area
Johannesburg	59	R4625.86
Mthatha	36	R3271.94
Port Shepstone	44	R1615.23
Potchefstroom	24	R2303.75

Table 5.47 Average income per sample area from available data points

From the table above, the average household income falls comfortably within the R6000.00 benchmark. The Johannesburg sample had a significantly higher average income than the rest, with Port Shepstone being the lowest. As is the case with all consumer segments, average household income will vary between cities and suburbs. The data did expose some outliers to the average. Household HH201023, for example, recorded an income of R9400.00 in wave two, but then an income of R2400.00 in

[32] Due to its size (over 240 pages), the data book is not included as an appendix in this document. The data book and interview audio files and transcripts can be obtained from the author should they be needed.

wave four (see Appendix 9 for more examples of outliers). A more detailed look at variation in monthly income is discussed after the sub-section on income sources below.

5.5.1 Income sources

The sources of income vary from house to house. In total, four types of income were received by the participants. These sources are detailed in Table 5.48.

Income source	Description
Wages	A wage is monetary compensation (or remuneration, personnel expenses, labor) paid by an employer to an employee in exchange for work done. Payment may be calculated as a fixed amount for each task completed (a *task wage* or piece rate), or at an hourly or daily rate, or based on an easily measured quantity of work done.
Social grant	Government funded social security distributed to low-income consumers. Chapter Two (Section 2.10) details the grant system in South Africa.
Rental	Income derived from tenants who pay for use of one's property (predominantly for living purposes)
Other	Other income sources like loans, micro-enterprise and gifts

Table 5.48: Primary sources of household income

Most households in the sample had more than one source of income per month. In addition, the demographic makeup of the household also impacts on income. For example, a household with two income-earning adults will have a distinctly different income framework than a household of two pensioners. In total, of the household income data collected, the average of income sources was derived into Figure 5.22.

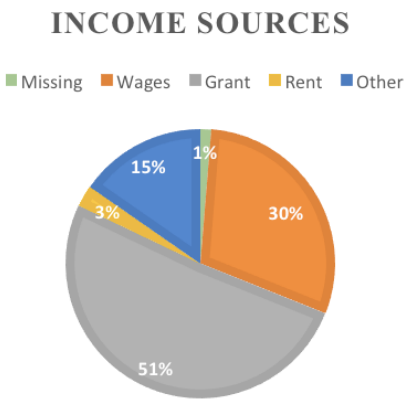

Figure 5.22: Average income sources for the entire sample.

When comparing Figure 5.22 to the 2008 income source summary in Figure 5.23, the aggregated income data from the sample aligns with averages for income deciles 1-4.

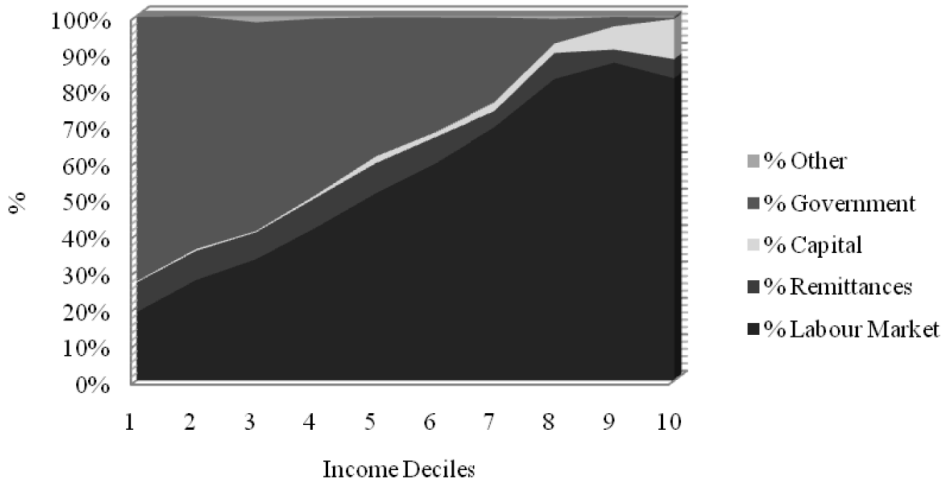

Figure 5.23: 2008 Sources of household income in South Africa (Leibbrandt et al, 2010)

Income non-disclosure was a noticeable feature of the income data. Although the research was able to gather 210 expenditure data points, only 163 income data points were recorded in the self-complete diaries. Income non-disclosure and under-reporting are common in South African economic research (Finn et al., 2014). Evidence for challenges with income (and expenditure) disclosure appears when comparing certain household waves. Household HH101022, for example, recorded an income of R3100.00 in wave four, but only R926.00 in expenditure for the same wave. The need for qualitative data to attempt better explanations for such occurrences is clear. Table 5.49 shows three examples of household income sources in certain waves. The examples provide insight into the fact that net income only provides a portion of the insight into how money flows into the household.

Income Source	W1	W2	W3	W4
Wages	R5600.00	R3500.00	R3500.00	R5500.00
Grant	R1120.00	R600.00	R600.00	R600.00
Rental	0	0	0	0
Other	0	0	0	R150.00
Total	**R6720.00**	**R4100.00**	**R4100.00**	**R6250.00**

Table 5.49: Household income for HH101010

Table 5.49 shows the variation in income sources from wave to wave in HH101010. Wave one identifies two wage sources (R2600.00 and R3000.00) for two adults in the household. In wave two and three, only one wage was recorded, although the wage earner received an increase from R3000.00 to R3500.00. The grant amount also was reduced from two recipients of R560.00 each (wave one) to a single recipient of R600.00 (waves two, three and four). The single grant amount had increased by R40.00 at the end of the month (wave one). In wave four, after two months, another salary was added (R2500.00) as well as an additional R150.00 recorded as 'other income'. The variation in household income in HH101010 over the period of four months is noticeable, but still lacks consumer behaviour related insight without some explanation for the changes, as well as expenditure patterns with which to compare income. Table 5.50 depicts another similar example of income variation in both amount and source.

Income Source	W1	W2	W3	W4
Wages	R6000.00	R2000.00	R2000.00	R2000.00
Grant	R1160.00	R580.00	R600.00	R600.00
Rental	0	0	0	0
Other	0	0	R2000.00	R2000.00
Total	**R7160.00**	**R2580.00**	**R4600.00**	**R4600.00**

Table 5.50: Household income for HH201017[33]

Table 5.50 shows some similar patterns to the previous case example. The grant amount increases by R20.00 (not R40.00 since the grant was a different grant). The amount of grants for the household also dropped from two (wave one) to one (waves two, three and four). A single household adult was responsible for the wage and other income. In wave one, this was recorded as two wage payouts (R4000.00 and R2000.00 respectively). In wave two this was recorded as a wage (R2000.00), followed by wave three and four with a wage (R2000.00) and an 'other' source of the same amount (R2000.00). As in the previous example, the income data alone does not describe the details of household income or possible impact on expenditure behaviour.

[33] Note that the reporting in rounded numbers may be attributed to participant in a phenomenon known as a 'rounding error' in data science

The above two examples illustrate a trend that is clear throughout the sample as observable in Appendix 9. Appendix 9 shows the constant variation in income due to shifts in income source (as illustrated in Table 5.49 and Table 5.50 above), as well as income amounts (change in grant or wage amounts). This trend was apparent in many of the households[34].

5.5.2 Income variability within households

When analysing household income variability, the sources of income (as discussed above) were not the only significant observations. Individual households often showed major variation in household income. The examples below are illustrative of the trend (See Appendix 9 for the full table).

Household	W1 income	W2 income	W3 income	W4 income	Weighted average W1-4
HH101013	R2500.00	R3000.00	n.d.	R5600.00	**R3700.00**
HH101025	R1270.00	R1000.00	n.d.	R2800.00	**R1690.00**
HH201028	R1260.00	R2540.00	n.d.	R5480.00	**R3093.33**
HH521022	R2600.00	n.d.	R2100.00	R1600.00	**R2100.00**
HH601023	R1200.00	n.d.	R2360.00	n.d.	**R1780.00**

Table 5.51: Variation in monthly income when compared to the average for all months.

From the examples in Table 5.51, there is clear evidence that any single wave does not necessarily represent the monthly average. While consistency did exist for some households (See Appendix 9), this was in the minority as only two households (HH521018 and HH521021) registered the same income in all waves[35].

5.5.3 Income variability between months and metropolitan areas

While there was some variation in the amount of income data points from each area and household, a comparison of variation in the monthly average income is calculable and depicted in Table 5.52. Since the waves were not all completed in the same month.

[34] The spreadsheet for this detail of data was not attached to the final document due to its size and numerical complexity. Details are available from the researcher upon request.
[35] Excluding households where only one income wave was recorded

	December '13	January '14	February '14	March '14	April '14	May '14
Johannesburg	R6204.78 (18)	R3424.63 (19)	R3467.50 (2)	R4461.85 (20)		
Mthatha	R4186.92 (13)	R3236.67 (9)	R2171.43 (7)	R2718.57 (7)		
Port Shepstone			R1116.67 (12)		R1955.29 (17)	R1628.67 (15)
Potchefstroom		R2165.38 (13)		R2467.27 (11)		
Total	R5359.58 (31)	R2985.10 (41)	R1693.14 (21)	R3564.34 (38)	R1956.29 (17)	R1629.67 (15)

Table 5.52: Average household income per area. Number of sampled households in parenthesis.

From the averages in Table 5.52, it is clear that in the two areas that had wave one collected in December, that month has a significantly higher income than the rest of the waves. This phenomenon is accounted for by a number of variables. First, the last month of the year is often characterised by income bonuses and festive season Stokvel payouts (See Section 2.8.2.4) and new loans. Both Mthatha and Johannesburg also observed a trough during January and February, which was followed by an increase in March. This phenomenon is partially due to those months being particularly difficult in terms of income for those without a set wage who rely on ad-hoc jobs or credit repayments due.

5.5.4 Summary of income findings

The findings related to household income display certain features. First, the income data was not as consistently recorded as the expenditure data. As discussed above, this phenomenon is not unusual in income and expenditure survey results. Second, there was significant variation in both sources of size of income between households as well as within the same households (between waves). Third, there was significant variation in average income between areas, and between waves (depending on what month the wave was captured). The size of the sample does not allow for conclusions to be drawn about differences in BoP characteristics between metropolitan areas. The generalisability of these findings to the rest of South Africa will need further testing at

a larger scale. Nonetheless, the income findings form part of the answer to understanding household expenditure behaviour, which is discussed further in the next section.

5.6 Expenditure analysis

The previous section observed the recorded income for the sample of households. In this section, the captured expenditure data is analysed. The section begins with some of the aggregate data for all of the households followed by a deeper analysis of individual categories. Finally, the category tradeoffs made by individual households will be made.

5.6.1 Overall expenditure trends

Of the total 210 financial diary responses related to expenditure data collected from all eighty households, a summary of average household categories expenditure is observed in Table 5.53. The averages were calculated by a sum of the expenditure amounts by household across all categories to give an overall total.

Category	Average % of HH expenditure (n=210)
Groceries	80.14%
Cell Phone	3.06%
Entertainment	1.30%
Health Care	0.13%
Schooling	1.17%
Transport	0.28%
Eating out	6.11%
Cleaning materials	2.46%
Cosmetics	0.33%
Water	0.13%
Electricity	1.25%
Clothing	0.45%
Other	3.19%
Total	**100%**

Table 5.53 Average household expenditure per category for the sample of eighty households (all areas)

Table 5.53 shows that groceries make up the highest percentage of household expenditure (80.14%) with eating out (6.11%), cell phone (3.06%) and other (3.19%) taking the next three top ranks. The rest of the categories take minor average percentages of total expenditure ranging from electricity (1.25%) to water and healthcare (0.13% each) taking the lowest average amount. The results reflect quite a difference from the South African national average expenditure pattern. Transport (17.1%) and housing (32.0%), for example, are far removed from the national average (StatsSA, 2015). The reasons that a sample of South African BoP households would experience a different set of expenditure averages is fully explored in Section 6.2. Figure 5.24 graphically represents the total average category expenditure for the sample.

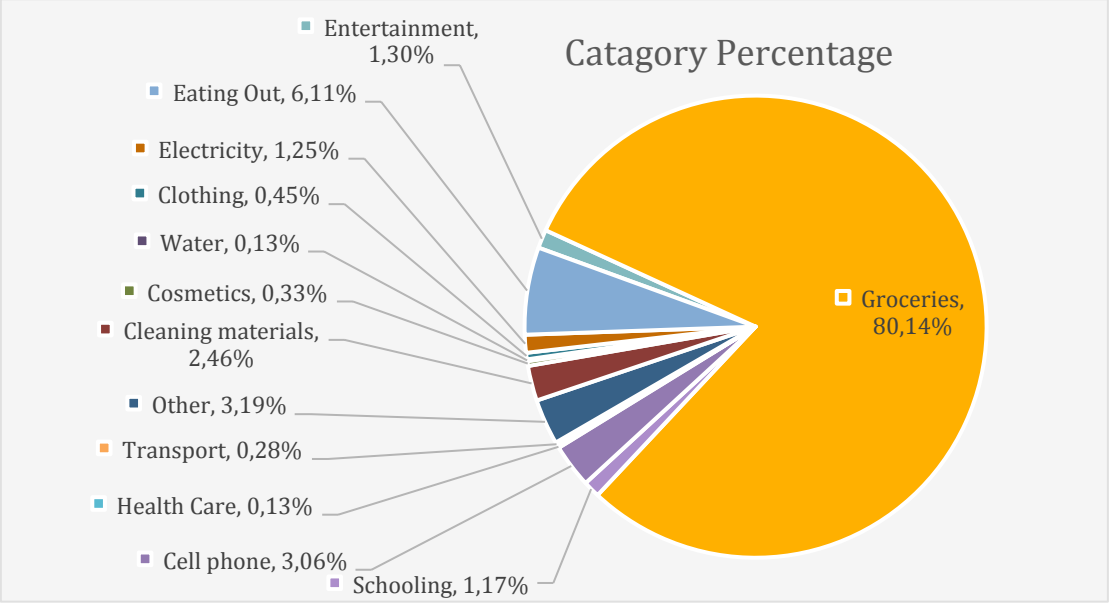

Figure 5.24: Pie chart showing percentage of expenditure per category for the full sample of eighty households (all areas)

5.6.2 Expenditure trends between metropolitan areas

When comparing the areas to the average for all areas, some variation is observable between areas. Table 5.54 compares each area with the average for all areas. The variation in expenditures like groceries are noticeable in the table.

Category	Johannesburg	Mthatha	Port Shepstone	Potchefstroom	Average % of HH expenditure (n=210)
Groceries	71.52%	84.78%	90.13%	88.68%	**80.14%**
Cell Phone	6.08%	0.26%	1.70%	0.55%	**3.06%**
Entertainment	2.25%	0.99%	0.01%	0.00%	**1.30%**
Health Care	0.23%	0.10%	0.00%	0.00%	**0.13%**
Schooling	0.99%	2.04%	0.06%	0.89%	**1.17%**
Transport	0.53%	0.00%	0.00%	0.47%	**0.28%**
Eating out	11.54%	1.97%	0.84%	3.11%	**6.11%**
Cleaning materials	2.36%	1.35%	3.20%	5.34%	**2.46%**
Cosmetics	0.40%	0.21%	0.56%	0.05%	**0.33%**
Water	0.02%	0.07%	0.40%	0.36%	**0.13%**
Electricity	0.57%	1.86%	2.42%	0.55%	**1.25%**
Clothing	0.52%	0.72%	0.00%	0.00%	**0.45%**
Other	2.98%	5.64%	0.68%	0.00%	**3.19%**
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Table 5.54: Average household expenditure per category per area

From Table 5.54, it is clear that grocery expenditure is consistent as the largest expenditure category in all four sample areas. The proportion of grocery spend compared to other categories is, however, different. In Johannesburg, the groceries were significantly below the average of the other areas and almost 20% below Port Shepstone. The difference between Johannesburg and the other areas is predominantly made up in an increase in eating out expenditure (11.54%) and cell phone expenditure (6.08%) which far exceeded those of the other three areas. The geographic regional averages in Table 5.54 are displayed graphically in the four graphs in Figure 5.25 to 5.28.

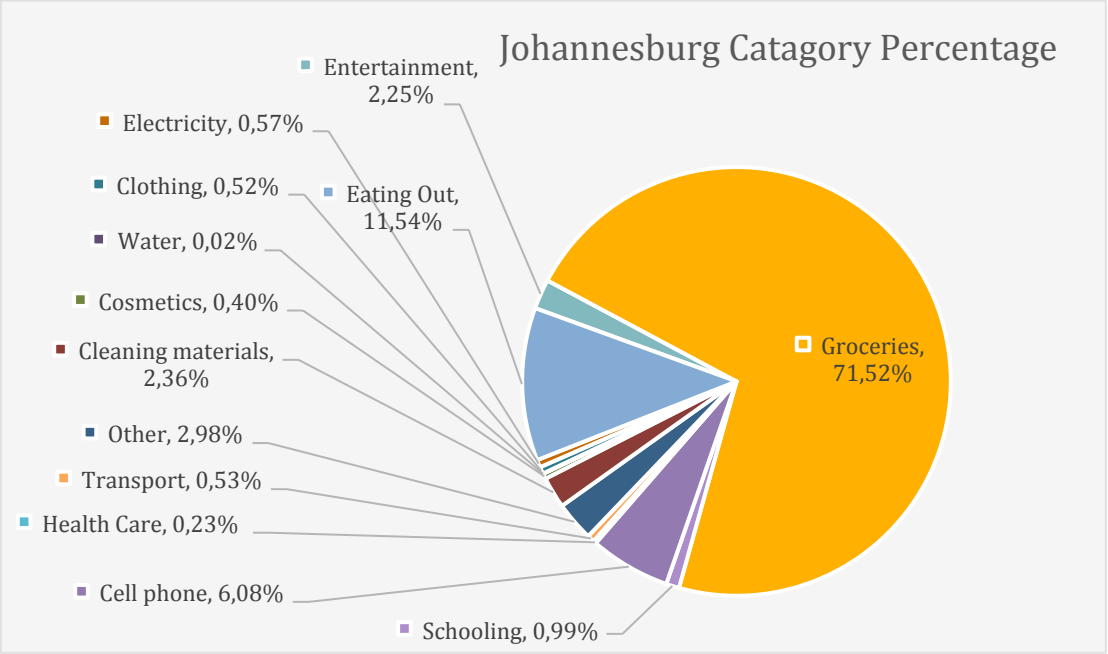

Figure 5.25: Average share of expenditure categories in the Johannesburg sample (twenty households)

The fact that the Johannesburg sample was in a highly urban and cosmopolitan suburb explains both of these phenomena. While Alexandra is a BoP suburb, the city of Johannesburg (and the commercial areas surrounding Alexandra) are far wealthier and have more job opportunities than the peri-urban suburbs in the other three regions.

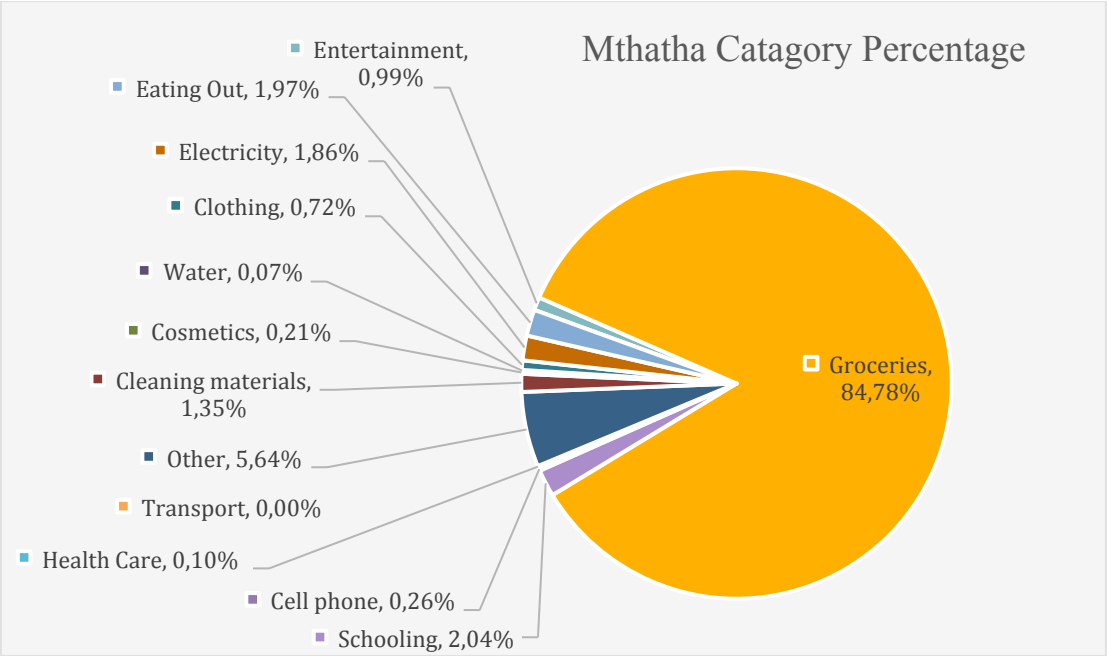

Figure 5.26: Average share of expenditure categories in the Mthatha sample (twenty households)

Mthatha had the highest percentage of schooling expenses (2.04%) and clothing (0.72%), and second highest for electricity (1.86%) after Port Shepstone (2.42%). Both Port Shepstone and Potchefstroom had very low clothing, health care and entertainment expenditures (all close to zero percent). Mthatha and Port Shepstone had very low transport expenditures (both close to zero percent). Other than in Johannesburg (as mentioned already), the eating out expenditures are below 4%. Similarly, for the Johannesburg sample (2.25%), entertainment is below 1% in all three other areas.

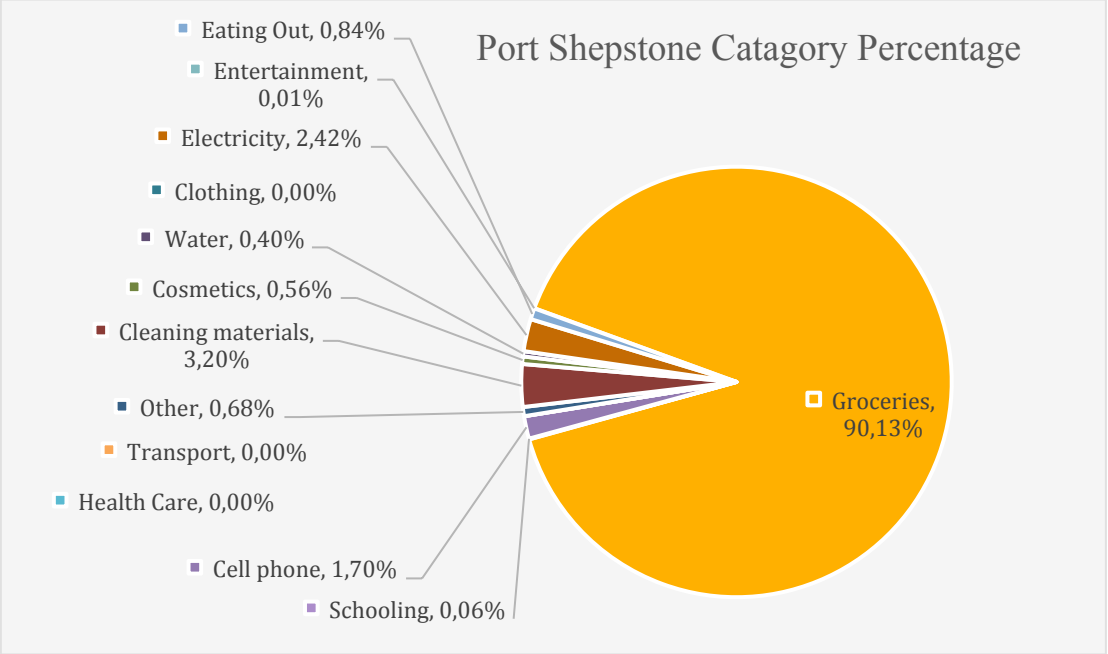

Figure 5.27: Average share of expenditure categories in the Port Shepstone sample (twenty households)

Cell phone usage in Johannesburg is also higher than the rest at just over six percent compared to less than two percent in the other sample areas.

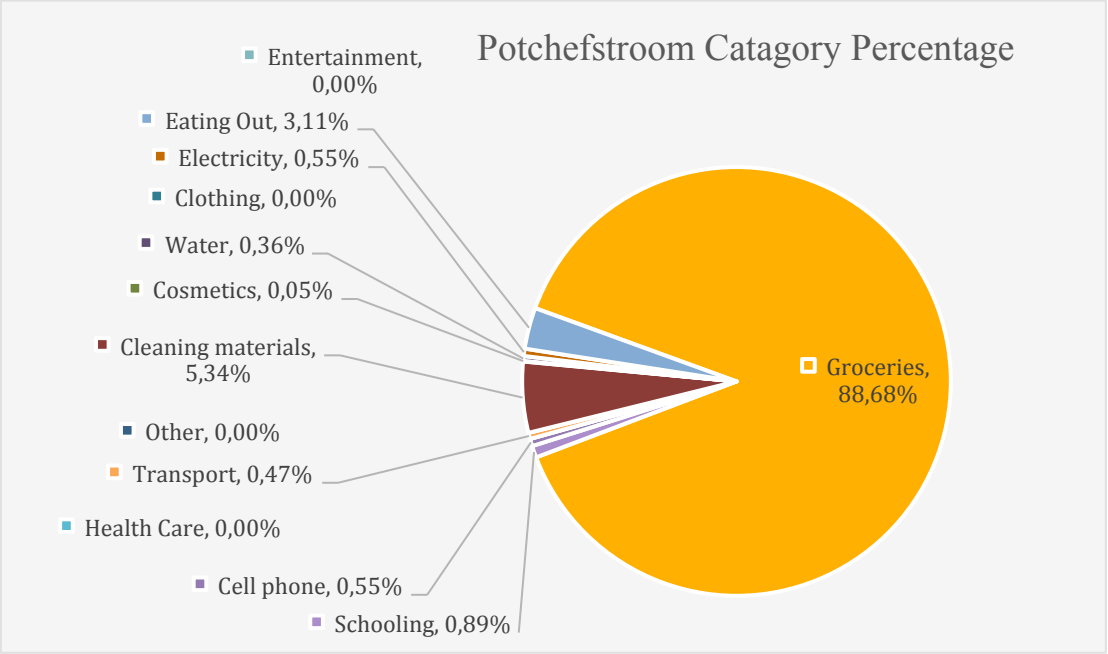

Figure 5.28: Average share of expenditure categories in the Potchefstroom sample (twenty households)

Being such a small sample, the above averages cannot be scaled to a nationally representative sample. The scope of this study does not require a deeper analysis of the differences between the regions. The regional comparison above, however, does provide a broad overview of some trends within general BoP household expenditure. The focus of the research question is monthly trade off between categories in the same household. The expenditure trade-offs at a household level will be discussed in the next sub-section.

5.6.3 Expenditure trends within households

Now that the expenditure analysis has been grounded in an evaluation of the overall trends within the whole sample and between areas, a more detailed examination of individual households is required in order to meet the research objectives. In this sub-section, the individual household multi-wave results show significant variation in expenditure from month to month in a significant number of the sample. The process of analysing the monthly expenditure fluctuations within households followed a systematic process. The process started by identifying inter-wave category expenditure shifts of more than 15% in the largest category (generally groceries) as described in Section 4.9. Expenditure spikes in other categories were then also identified. The trade-offs were then analysed in conjunction with the qualitative data

in order to draw the thematic observations in Chapter 5.7. Figure 5.29 represents the process of expenditure analysis.

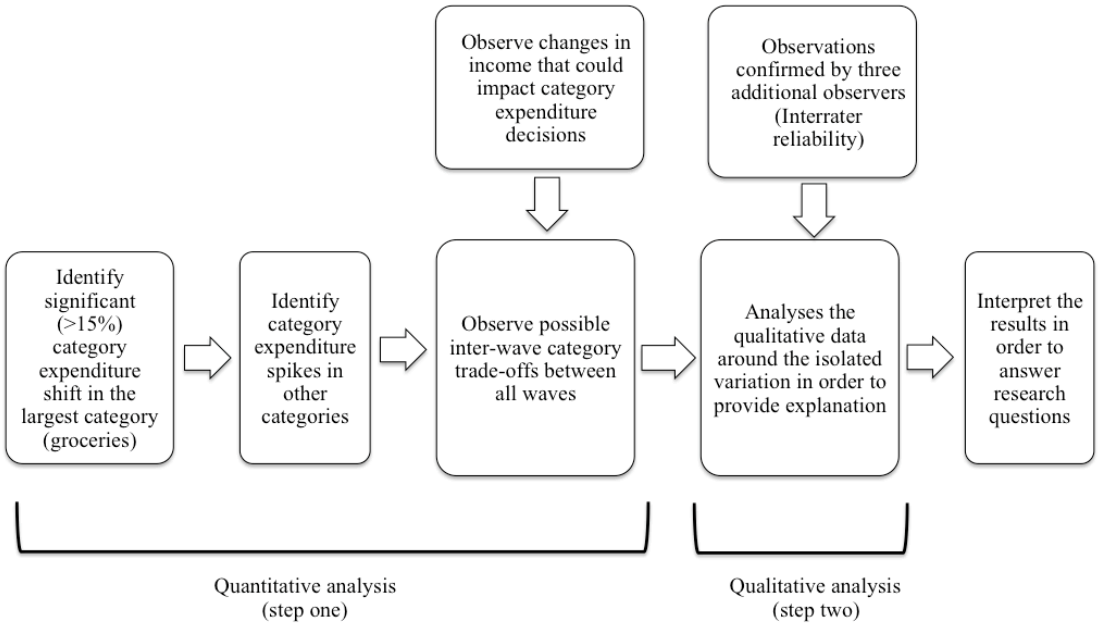

Figure: 5.29 Expenditure analysis

In order to identify the initial quantitative trend (step one), the raw household data was synthesised into categories as described in Chapter Four. The pivot tables created on MS Excel™ summarised the raw data into meaningful data tables that displayed category expenditure per wave. These tables were also used to create charts to help observe the variation. A visual example of the raw tables can be seen in Appendix 10.

Once created, the tables were then used to create two ways of visualising the data. First, summary tables were created of all eighty sample households for each category (see Appendix 10). These tables were then examined for significant changes in the core grocery expenditure amount. Since the grocery category makes up an average of 80.14% across the entire sample, grocery expenditure shifts of more than 15% on the first summary table became a reference point for category trade-off comparison in the next phase. The shifts were also referenced on the tables in order to be synthesised with the qualitative data from the households in question in a later stage in the process. The references were also highlighted whether the shift was positive or

negative growth. A total of forty two points of significant shift in the grocery category were referenced at this stage[36].

The second step involved an analysis of the other categories for category spikes that may have caused or inform the shift in grocery expenditure. A spike is a sudden shift either upwards or downwards before returning to the trend. Spikes are only identifiable in context, and not based on their nominal value alone (De Villiers & Frank, 2011). Any noticeable category spikes were referenced in Appendix 10. A total of 144 spikes were recorded. The next phase in the analysis could only take place with individual household data formulated into an observable sequence of waves, hence the need for a third step.

The third step was the creation of the data book of individual household information. An example of a household from the data book can be found in Appendix 11[37]. The data book then allowed household level analysis to be made. The following example of HH201017 (Table 5.55) shows the household level category expenditure variation.

Category	Wave 1	Wave 2	Wave 3	Wave 4	Category Total
Cell phone	0.00%	1.98%	0.00%	0.00%	0.32%
Cleaning materials	0.00%	5.88%	0.00%	2.65%	1.27%
Cosmetics	0.00%	2.17%	0.00%	0.00%	0.35%
Electricity	1.56%	3.29%	0.00%	0.00%	1.59%
Entertainment	4.69%	18.11%	0.00%	0.00%	6.11%
Groceries	80.06%	68.56%	90.98%	66.34%	76.98%
Schooling	5.40%	0.00%	6.83%	0.00%	3.93%
Water	0.00%	0.00%	2.19%	0.00%	0.09%
Eating Out	8.29%	0.00%	0.00%	31.00%	9.35%
Grand Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Table 5.55: HH201017, Category expenditure per wave

In HH201017, the grocery share of spending (SOS) drops significantly from wave one to two (11.5%), and then, after a brief recovery in wave three, from wave three to four (24.64%). When observing the other categories, it is evident that five other categories

[36] These points of reference are highlighted in Appendix 10
[37] As mentioned earlier in chapter five, the whole data book is too large to include in the appendix, but is available as a separate document upon request.

increased from wave one to two (three from a base of 0.00%). Entertainment showed significant increase (W1-2), but then stopped completely for the next three waves (W2-4). In wave one and four, eating out took close to ten percent of SOS (8.29% and 9.35% respectively). The eating out had a direct impact on the grocery percentage. The graphs below in Figure 5.30 provide a graphic representation of the shifts in category expenditure from wave to wave.

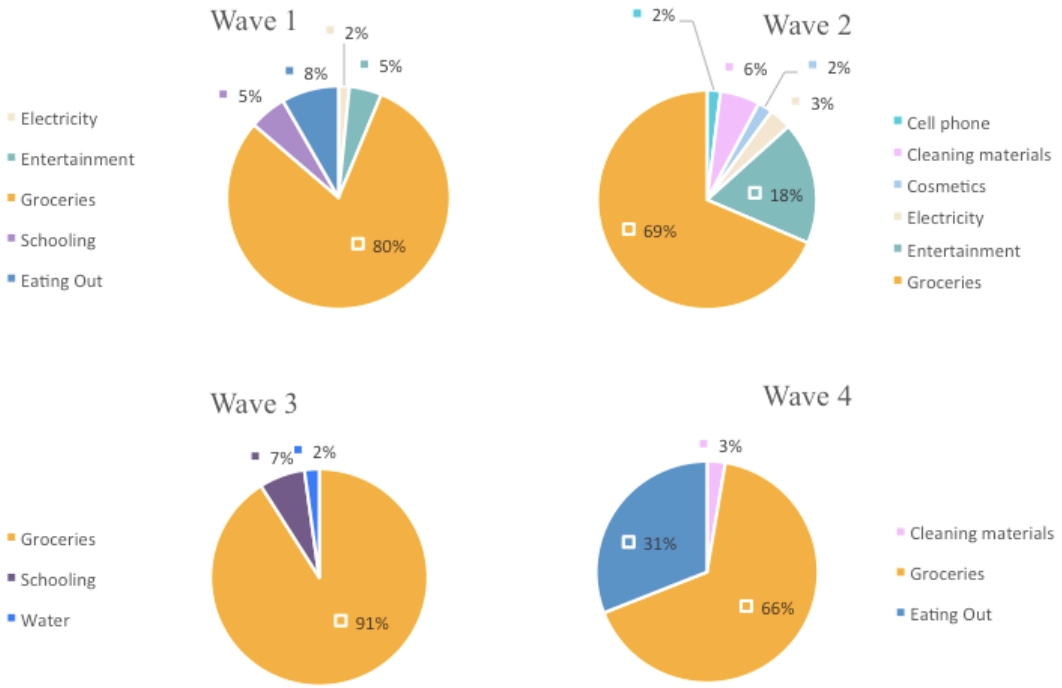

Figure 5.30: HH201017, Category expenditure per wave

The trend in HH201017 was observed in many of the households (see Appendix 10). In some cases, there was more consistency between waves, but in other cases the variation was even more dramatic. In order to fully interpret the category trade-offs, the data from the process above needed to be synthesised with the income data and the qualitative findings. The next sub-section briefly summarises the quantitative analysis path before transitioning to the qualitative findings. At the end of this section, a set of case studies synthesise the data in order to answer the research question.

5.6.4 Summary of the quantitative analysis path

The process of generating insights by which to address the research problem followed a systematic path. First, significant category shifts between waves of the largest

(grocery) category was identified. Second, the shifts were compared to other category spikes that could inform the inconsistency. Third, individual household inter-wave expenditure was examined to seek possible explanation for the shifts. Figure 5.33 is a graphic representation of the analysis framework for the financial data in order to answer the research question.

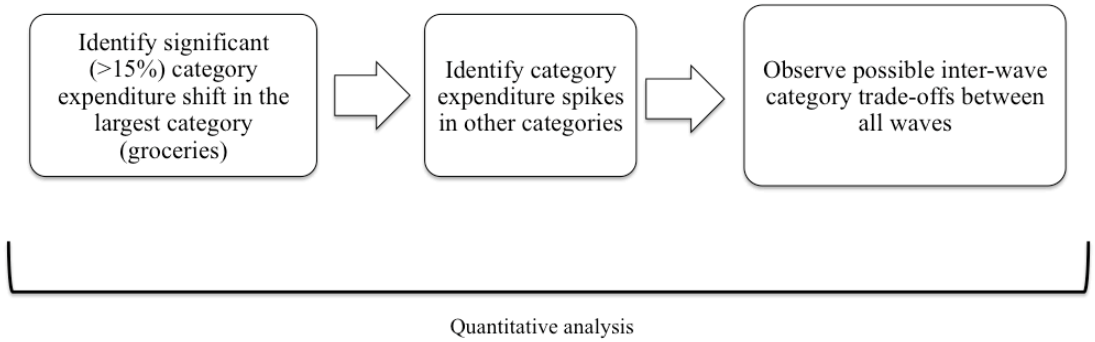

Figure: 5.31: Steps for analysing the quantitative data for category trade-off insights

The process of identifying significant category expenditure shifts only partially answers the research question. In order to fully integrate the findings, the qualitative layer was required. Before discussing the quantitative analysis, the next sub-section briefly discusses the phenomenon of undisclosed and unrecorded data.

5.6.5 Unrecorded and undisclosed data

Non-disclosure is a major issue in financial diary data collection (as outlined in Chapter 4). According to NIDS and StatsSA, the trend of under-reporting or non-disclosure of certain expenses is normal (Finn, Leibbrandt, & Oosthuizen, 2014). The under recording of income or expenditure pressurises the assumption in economics that income and expenditure generally align. Finn et al. (2014) also observe that more regular reporting (like the financial diary methodology) can lead to under reporting of expenditure in certain categories like tobacco and alcohol. Also included in the list of expense recording challenges are loans to and from friends, family or loan sharks. Loans from friends are also often not recorded as income, nor seen as credit by many BoP households (UUISM, 2012; James, 2014).

Income in the form of micro-enterprise income is often unrecorded. A street vendor might make a small revenue, but spend most of it on replenishing stock. Technically

the income is still part of their gross income, but is unlikely to be recorded as such since the money didn't even make it home that day. Similarly, at the end of the month, a small sum of money might be borrowed from a neighbor in order to buy groceries to make it until payday. This is technically income, although might not feel like it at the time, and might not be recorded as such (James, 2014; Charman & Petersen, 2017).

Informal trade of items like alcohol and cigarettes is also often unrecorded. Both out of embarrassment and fear of being reported to the police for illegal trade, these incomes and expenses (buying stock) are often left out of formal research data. An example of a participant from the UUISM's Majority Report (2012) showed a BoP consumer spending over 80% of his weekly income on alcohol. A similar topic is the income received from any illegal activity (theft, prostitution etc.). This phenomenon is not something that can only be assumed of a minority of BoP consumers'.

Unrecorded data is impossible to quantify (by definition) and very difficult to estimate. The data does, to some extent, impact the results. According to StatsSA (2013), items like alcoholic beverages and tobacco make up 1.1% of total South African expenditure, although this will vary between households.

5.7 Qualitative analysis

The analysis of the interview and open-ended diary questions produced a number of findings relevant to the research objective that sought to understand what factors precipitated expenditure category trade-offs. In the previous section, the financial diary data pointed to a number of significant observations when comparing expenditure between months. This section provides an analysis of the qualitative findings as validified though the process of inter-observer (inter-rater) reliability described in Chapter Four. The analysis provided eight themes that are presented and illustrated in the next sub-sections.

5.7.1 Theme 1: Income variability impacts expenditure

The observation that monthly income can fluctuate significantly between months (see Chapter 5.5.2) has a direct impact on category expenditure. Inconsistent wages from non-permanent employment or micro-entrepreneurship is a major contributing factor.

The loss of a job for one or more members of the household also has a significant impact on expenditure. This finding is aligned with current literature that observes BoP consumers experience of income instability and inconsistency, often with daily wage payments (Subrahmanyan & Gomez-Arias, 2008; Chikweche & Fletcher, 2012). As in all BoP markets, low-income South Africans experience significant socio-economic pressure as economic constraints like unemployment, low income and often inconsistent income play a role in daily decision-making (Nwanko, 2000; Eifert, Gelb & Ramachandran, 2005; Johnson, Ostry & Subramanian, 2007). While measuring BoP income partially describes the constraints of BoP consumer behaviour, the impact of income variability on monthly expenditure is seen in the household cases that follow.

In **HH101014**, income decreased from R1500.00 to R390.00 from December to January due to the termination of an employment contract. During this period, groceries increased from 60% to 86%, where this percentage then remained fairly constant, despite the amount spent on groceries increasing from R288 to R1744.64. This was accompanied by a decrease in eating out from 40% to 0% from December to January. Income eventually returned to R1600.00 in March. The following quotes provide qualitative insight to the observed variation in expenditure as a result of income variability:

> *"Our employment contract come to an end."*

> *"They've renewed my contract at work so this means I'm going to be working full time."*

> *"My first born son got a job."*

Owing to the loss in jobs during December and January, more groceries were bought while the eating out expenses decreased. When the job contract was renewed, and their son found a job in February and March, expenses increased as the household could afford more. The largest expense of R177.64 was on groceries in January.

Other households that experienced significant shifts in monthly income with a subsequent effect on expenditure included: HH101010, HH101015, HH101021, HH101028, HH201028, HH521012, HH521024.

5.7.2 Theme 2: Trading groceries for entertainment or eating out

Although classified as different categories, groceries and entertainment often fulfill similar needs. While not true in all cases (for example the lottery), expenditure on food and beverages in an entertainment capacity can substitute for grocery expenditure. Limited financial resources has been closely linked to careful consideration in BoP purchase decisions (Jacobs & Smit, 2010; Duvenage et al, 2010; Charman, Petersen & Piper, 2012; Simpson & Lappeman, 2017). Chipp et al. (2012) identified South African BoP consumers as being highly considerate of choice costs and benefits in their pursuit of overall utility. This aligns with Hamilton and Catterall (2005:628) who identified the need for better observation of how BoP consumers attempt to "exert some control" over their lives through choice. The sample cases below provide a unique window into the trading off of more essential categories (like groceries) for entertainment and costlier eating out.

HH521010 experienced a decrease in electricity and groceries from 40% to 21% and 60% to 56% respectively between February and March. During this time, cell phone expenses rose from 0% to 16%. Between April and May, cosmetics and groceries increased from 0% to 14% and from 56% to 83% respectively. Additionally, cell phone and cleaning materials decreased from 16% to 2% and from 7% to 1% respectively. The following quotes show certain situational variables that influence the category trade-off expressed in the financial diaries:

> *"They were going to the house warming for their cousin, so they all bought groceries as gifts."*

> *"Nomthandazo went with her sister to visit their aunt in Umzumbe to have a Thanksgiving ceremony. As their aunt was looking after her sister, they bought some gifts for her like blankets, groceries, pinafores, pork and traditional beer."*

When attending gatherings, groceries were bought as gifts. Therefore, during times of celebration, a smaller percentage was spent on cell phone, cleaning and electricity expenses. Additionally, more was spent on cosmetics during this time. The largest expense of R431.90 was on groceries in May.

In **HH101022**, from January to February, cell phone expenses increased from 3% to 21% and then dropped to 0% from February to March. Eating out (entertainment) decreased from 33% in December to 8% in January and then further to 4% in February. The situation was illustrated in the following quotes from the household:

"I was very unfortunate to be chased out of my place."

"I'm looking for a place to stay."

Owing to household member/s being homeless and looking for a new home, cell phone expenses may have increased when trying to organise a place to stay or contacting family, while entertainment decreased.

HH101020 too saw a decrease in their entertainment expenses between December and January from 9% to 0%. The interviews gain the insight about the circumstance surrounding the trade-off:

"I'm very sick, I just got a terrible flu."

Due to illness in the family, less was spent on eating out, thereby decreasing the amount spent on entertainment. This finding aligns with Prahalad and Hart's (2004) assertion that BoP households are often mistakenly assumed to be constrained by essential spending only. The importance placed on entertainment is testimony to this misconception (Prahalad & Hart, 2004; Midha et al., 2012).

A number of households not mentioned above showed similar spending trends substituting groceries for entertainment. These households include: HH201017, HH601029, HH101019, HH101021, HH101028, HH201017, HH521026, HH521028, HH601010, HH601021, HH601029.

5.7.3 Theme 3: Seasonal trade-off effects

The trend of trade-off between groceries and other categories was particularly noticeable during the festive season. The study was intentionally targeted at exploring the months that span the festive season and New Year. While a study that spans a full calendar year would give more robust results, the festive season is a key season for

many marketers as expenditure tends to peak (Terblanch et al., 2013). Easter, birthdays, back-to-school and traditional ceremonies are annual phases of expenditure category disruption as categories like entertainment, school, clothing and eating out may temporarily spike. These findings align with Subrahmanyan and Gomez-Arias (2008) who observed that discretionary purchases correlate to irregular occurrences like the festive season. In addition, D'Andrea et al. (2004) observed how certain months have large purchases, while others do not. The results of the festive season on share of expenditure is observed in the following cases.

From February to April, **HH521019** saw cleaning materials and cosmetics increase from 0% to 5,2% and 1% respectively, while groceries decreased from 100% to 93%. From April to May, groceries increased to 95%, while cleaning materials and cosmetics decreased to 4,6% and 0% respectively. The following quotes express the situation:

> *"When its festive we are celebrating Christmas and New Year it's time to be happy we eat nice things that we don't always eat during the year."*

> *"On January we buy school uniform and pay school fees and then we save the rest for other things we might need."*

During the festive season, more groceries are brought to feed the children (with stokvel money). The largest expense of R1231.79 was on groceries in April.

HH601021 saw eating out increase from 0% to 25%. At the same time, groceries decreased significantly from 94% to 70%. This trade-off is understood from the following quote:

> *"Normally I buy school uniform in November and December I buy them clothes and in January I will concentrate in books only."*

Despite getting a new microwave, the household increased the amount they ate out. The largest expense was on groceries in March, which was R379.00.

In **HH101010** there was a shift in both the entertainment and grocery categories. From December to January, entertainment dropped from 15.28% to 0% while groceries increased from 82% to 99%. This shift was then followed by an increase in

entertainment from 0.5% to 10.62% and a reduction in groceries from 97% to 86% between February and March. The situation is signified by the following interview quotes:

> *"There's hardly money during the festive seasons as it gets used a lot."*

> *"We normally buy lots of drinks, we drink a lot during the festive season even if it's not alcohol but we drink a lot, and on other things it depends on the people you have around you but mostly it's drinks, meat and snacks."*

The quotes show that expenditure related to entertainment increased in December and March. In these months, less was spent on groceries and cell phone payments to accommodate for the entertainment expenses.

A similar trend was seen in **HH101011**, whose groceries expenditure increased from 64% to 97% from December to January, and dropped from 97% to 27% thereafter. Despite groceries being the largest expense for both households, especially during the festive season, a significant amount was spent on entertainment, and **HH101011** also saw an increase in their entertainment expenditure from 0% to 39% from January to March as expressed in the interview quotes:

> *"Well, yes there's a little bit of a difference with the December holidays because families are together in December and we spend more in December than during the year as families get together as they are big holidays so we spend more."*

> *"When children are home they have a lot of needs and demand; you spend a lot of money. When schools are opened it gets better. Now that the schools are closed children are also tempted into doing wrong things especially if there are no sport activities."*

Change in grocery spending is due to the festive season and children being at home during school holidays. Additionally, entertainment is of great importance to this household, thus a large amount is spent on entertainment, leaving less money for groceries.

HH101028 also saw an increase in groceries (62% to 98%) and a decrease in eating out (19% to 0%) between December and January. The household's stated reason for this was family visiting for Christmas Day. From January to February, eating out increased to 28% as seen in the interview quotes:

"We had a family gathering on Christmas Day."

"I went to see my daughter in a nearby township."

Groceries expenditure was higher when the household hosted visiting family over the festive season, with a decrease seen in eating out expenses. This was reversed when the household went to visit family themselves. The largest expense of R2 390.00 was on groceries in March.

HH101022 also saw a decrease in eating out from 33% to 8% from December to January. In contrast, however, to **HH101028**, whose entertainment expenditure increased from January to February because the household went to visit family, this then then dropped further to 4% from January to February for **HH101022** as expressed in the following quote:

"We went out with the kids in December for some treat."

Eating out expenses would have been high due to the family taking the children out for a treat during the festive season; this expense then dropped in the next month. Other households that experienced seasonal trade-off effects included: HH101010-15, HH101018-20, HH101023-26, HH101028, HH201023, HH201026.

5.7.4 Theme 4: Shock, trade-off, recovery

In some households, unexpected personal setbacks, losses and income shocks in one month directly impacted expenditure. The disruptive nature of an unforeseen setback caused an immediate inter-category trade off. The subsequent months usually saw a recovery to somewhere near the original category breakdown. A noticeable reduction in luxuries (for example clothes and cosmetics) was sometimes replaced by expenses relevant to the disruption. This finding was aligned to other literature that identified

BoP households as being vulnerable to shocks as they experience significant pressure from a lack of resources (Jacobs & Smit, 2010; Duvenage et al., 2010; Charman, Petersen & Piper, 2012; Simpson & Lappeman, 2017).

In **HH101012**, groceries increased from 23% to 98% from December to January where it remained fairly constant. This was accompanied by a decrease in other expenses from 77% to 0%. The shocks are expressed in the following quotes:

> *"I can't forget the death of my sister's child."*
>
> *"My uncle was attacked by a stroke."*
>
> *"Checkers Hyper donated food parcels to my charity organisation."*

The unfortunate circumstances of a death and illness in the family caused a large amount to be spent on other expenses rather than groceries. During the months which followed, these expenses were minimised and the majority of money was spent on groceries. The initial low amount spent on groceries in December (23%) was explained by food donations from Checkers Hyper. This percentage then increased drastically to almost 98% in January owing to a sister visiting the household, which required an increase in grocery expenditure to accommodate her. The largest expense of R2,356.12 was on groceries in April.

In **HH521011**, from February to March, groceries decreased from 100% to 76% while other expenses increased from 0% to 23%. From April to May, other expenses were reduced to 4% while grocery expenditure increased back up to 93%.

> *"Her neighbor's son passed away so she went to the funeral on the 7th of February."*
>
> *"She also went to the funeral of her neighbour. She had to pay R20 as per society they started if they lost a family member. She is building so they bought building material."*

The passing of her neighbour's son caused an increase in the percentage spent on other expenses. This meant that fewer groceries were bought until May when the

grocery cupboard would have needed restocking; the largest expense of R729.16 was on groceries in May.

HH101018 also saw an increase in groceries (81% to 99%) and a decrease in school expenses (19% to 0%) from December to January. The shocks experienced by the household are illustrated in the following quotes:

"I attended a funeral of one of the family members in Limpopo."

"Attended a funeral."

Owing to many funerals, money was spent only on essentials such as groceries. This meant that there was not enough money to spend on schooling. The largest expense of R1,397.00 was on groceries in January.

The spending of **HH101023** was also impacted by a number of funerals. From December to January, eating out decreased from 78% to 38% and then even further to 0% from January to March. Groceries then increased from 9% to 48% from January to February.

"Last week I buried my cousin."

"Also our family friends lost his child."

Eating out expenses may have been high owing to the household's attending funerals. Eating out expenses decreased and groceries expenses increased when the household attended fewer family gatherings.

HH101024 showed a similar trend, with eating out expenses being high when the family attended a number of funerals (decreasing therefore from 70% in December to 0% in January). Cell phone expenses also increased during this time period from 9% to 27%, perhaps due to the household contacting family members. The largest expense of R1,205.00 was on groceries in January.

HH201012 showed groceries expenditure at 100% until February, after which this decreased by 3% from February to March. Cleaning materials and other expenses increased from 0% to 0.6% and 1.83% respectively during this time. The following quotes explain possible reasons for this:

"We have lost about 22 sheep and we are still searching for them."

"We thank your project to be faithfully to us."

Loss of sheep may have caused spending to be only on necessities such as groceries. Because of donations received during February and March, more money was available to be spent on cleaning materials and other expenses. The largest expense of R 1352.93 was on groceries in January.

The spending of **HH521018** shows clearly how one item can absorb many during an unexpected shock. From February to March, cleaning materials, electricity and water decreased from 3%, 14% and 10% to 2%, 0% and 0% respectively. Groceries increased from 73% to 96% and cell phone expenses increased from 0% to 3%. The household shocks were illustrated in the following quotes:

"Chithiwe's younger brother got sick so she went to see him."

"Funeral of their neighbour."

"Chithiwe and her daughters went to visit their aunt. She used to babysit them when they were still young so they wanted to say thank you, so they started buying gifts since December - things like blankets and groceries."

The decrease in cleaning material, electricity and water may be due to Chithiwe's younger brother getting sick. She may have wanted to try support him. The increase in groceries may be due to buying them as a gift thus there is a clear increase from 73% to 96%. The largest expense of R493.32 was on groceries in April. Other households that experienced shock, trade-off and recovery included: HH521026.

5.7.5 Theme 5: Inter-month budgetary trade-offs

Instead of seeing category expenditure as a monthly cycle aligned with income frequency, budgetary items are spread over a series of months. When observing the total spend for a series of months, some of the months might find no expenditure in some categories. Some of this phenomenon of multi-month budgeting is not abnormal for wealthier households (that may not, for example, buy shampoo every month), but

in other cases there is clear evidence of stockpiling (Ailawadi et al., 2007; Ndubisi & Chew, 2006). Jacobs and Smit's (2010) observation that BoP households lack of income and access to low-interest loans often results in higher real costs for many goods. The spread of category expenditure over multiple months creates an inconsistency in budgeting and makes measurement of household expenditure difficult without multiple data points as were achieved in this study.

In **HH101019**, from December to January, groceries increased from 32% to 96%. Clothing, electricity and other expenses all decreased to 0% from 20%, 10% and 33% respectively during this time. From January to March, cosmetics, health care and eating out all increased from 0% to 16%, 10% and 11% respectively. During this time, groceries decreased from 96% to 59%. Situations that led to the trade-offs are illustrated in the following quotes:

"I recall the funeral of my aunt."

"I attended a meeting of traditional healers."

"I need money for travelling and for medicine."

"There have been lots of weddings in the family."

"I bought some stationery last school and in terms of paying for the school fees I budgeted the money from November last year."

From the data, it seems as though expenditure alternates from month to month. This can be seen where some months are dedicated to spending on electricity and clothing, while others on cosmetics and eating out when gatherings occur. In months where there are no funerals or weddings, majority of money is spent on groceries. The largest expense of R957.00 was on groceries in January.

In **HH521013**, expenditure on cleaning materials decreased from 9% to 3% while groceries increased from 91% to 95% from February to April. From April to May, groceries decreased to 89% and cleaning materials increased to 6%. The situations leading to the trade-offs can be seen in the following quotes:

"Birthday party for Anele, Sphesihle and Mongezi, Bought cakes, cool drinks and snacks."

"They [the children] eat a lot every hour they are hungry."

"We buy Sunlight liquid for dishes, Handy Andy for cleaning the stove and fridge and One Step to clean the floor."

More groceries were bought from March to April owing to the birthday party for the three children. After the party, the percentage of income spent on groceries decreased. Additionally, as stated in the interview, when the children are at home instead of at school, they eat a lot. The increase in money spent on groceries meant less could be used on other expenses such as cleaning materials. The largest expense of R837.97 was on groceries in April.

In **HH521017**, cleaning materials and groceries decreased from 9% to 6% and 91% to 86% respectively between February and April. From April to May, groceries increased to 98%. The following quotes show the situations behind the trade-offs:

"Zingi and her kids visited her in-laws. The following weekend they stayed home the father of her kids came to spend the weekend with them."

"Usually we have visitors during festive holidays my relatives come and spend Christmas."

"We cook more food as we also have visitors during that time and I buy nice things."

"Went to her mother's place at Shoba to clean the yard and prepare for the visitors who are coming on Easter holidays."

"I learned it from home, we grew up poor so when I go to neighbour's house I used to see nice things that we don't have when I come back home I make sure that even if we don't have what they have at least they must be clean and neat all the times."

When preparing for the Easter holidays, more groceries may have been purchased. The largest expense of R469.50 was on groceries in May. As stated in the interview, keeping their home clean is of great importance.

In **HH521024,** both cleaning materials and electricity decreased from 10% and 13% to 0% from February to April. Groceries increased from 72% to 100%. From April to May, groceries decreased to 82%, while water increased from 0% to 12%. The following quotes help to illustrate the situation:

> *"Msizi Nimusa's son came back from Durban on the 19th very sick. Nomusa is a member of sacred heart, so Sylvester was helping her sister with her sick son. Sylvester's granddaughter is sick as well."*

> *"On the 30th it was welcoming ceremony at St Paul's Roman Catholic Church so all church members had to contribute R150 and buy some of the grocery packs."*

Sylvester had to look after two ill family members, thus less money was spent on cleaning materials and electricity and more was spent on groceries. The largest expense of R 573.40 was on groceries in February.

From January to March, both cleaning materials and eating out increased from 0% to 11% and 8% respectively in **HH601010**. Groceries increased from 76% to 81% and schooling decreased from 24% to 0%. Evidence of the reasons for the trade-offs can be seen in the quote:

> *"[I buy McDonalds] maybe three times a month."*

During December, more was spent on groceries owing to the family gatherings. The largest expense of R524.91 was on groceries in January.

In January, 96% spending was on groceries in **HH601013**, whereas cleaning material and water took up 1.85% and 1.9% respectively. The following quotes illustrate the situation behind the inter-month budgetary trade-off:

> *"They realised that buying without planning it can kill their budget."*

"Mostly December people are happy so I buy mostly food that will last us for longer not just for December."

"Family gathering."

"My plan I will be spending most of the time with my kids we don't have any plans whatsoever or maybe perhaps when I visit my families."

This household has learnt to budget and keep record of their expenditure. However, a family gathering may have caused inflated spending on groceries. The largest expense of R2,375.48 was on groceries in January.

HH601029 spent less overall from January to March, but eating out increased from 0% to 27%, and cleaning materials increased from 0% to 10%. Significantly less was spent on groceries; the expenditure on this amount decreased from 100% to 63. Inter-month budgetary trade-offs are partially explained by the quotes:

"Managed to buy her groceries that will last to the next month."

"Birthday party."

This household learnt to buy groceries that would continue into the next month, so more money could have been spent on eating out and celebrating things such as birthdays. Additionally, the ability to budget enabled the household to take into account birthday party expenses while spending less overall. The largest expense was R375.95 on groceries in January.

Other household that observed inter-month budgetary trade-off included: HH521026, HH601014.

5.7.6 Theme 6: Once off expense as an anchor to the trade-off ripple effect

In some of the households, a once-off expense had an unpredictable category trade-off ripple effect. Unlike the observation in section 5.7.2.2, the trade-off is not a substitution between two related (albeit different) categories. The case illustrated in the households below, the once off expense (for example a clothing purchase) would impact on groceries. The difference between this observation and the shock and recovery point (section 5.7.2.3) is the probability that the once-off expense could be

expected (or planned for). Banerjee and Duflo (2007) noted that social, cultural and festive engagements have great significance in most BoP markets. These events, however, have a financial implication as expenses can be significant. The return for a new school year was a noticeable event in a number of the households. Buying school uniforms and stationery in January meant that other categories had reduced expenditure. Similarly, spending money on irregular expenses like house upgrades or farming services would have a ripple effect on other categories.

In **HH201016**, groceries increased from 90% to 100%, while cleaning materials decreased from 10% to 0%. This remain constant thereafter. The following quotes explain some of the circumstances around the trade-offs:

> *"Nothing much happened except that my wife is not well here at home. I have taken her to the doctor."*

> *"We have been busy with back to school."*

Less money was spent on cleaning materials and more on necessities such as groceries. This may be owing to children to returning to school, thus requiring money to spent in that sphere. The largest expense of R654.00 was on groceries in January.

In **HH201020**, clothing and expenses decreased from 7% and 9% respectively to 0% from December to January. Groceries increased from 78% to 87% from January to December, and then again to 92% the next month. In a similar way as the previous household, the following quotes help to describe the situation:

> *"As you see that we are building a new house. it's not easy because we have to leave some of the groceries."*

> *"We are focusing on the children going back to school and building."*

Owing to the household building a new home, the percentage spent on clothing and other expenses was reduced to accommodate for this expense. Additionally, the opening of schools reduced the amount of money spent on children and allowed for expenses to be focused on groceries. The largest expense of R989.00 was on groceries in December.

HH201024 also saw an increase in groceries from 71% to 98%, while clothing decreased from 26% to 0% during the December January period as expressed in the quote:

> *"Since it is January our mood, it's more stressful because we don't have money and we are planning to fence this yard."*

During January and February, less was spent on clothing owing to the family saving to build a fence around their yard. This meant groceries formed a higher percentage of expenditure. Donations toward the family from March to April allowed for more money to be spent on eating out. The largest expense of R1,097.77 was on groceries in January.

In **HH201025**, from January to February, groceries increased from 43% to 98% while schooling and other expenses both decreased to 0% from 10% and 47% respectively. The money paid for renovations and a grandchild being admitted into hospital caused a lower percentage to be spent on groceries.

From February to March, **HH521026**'s electricity expense decreased from 38% to 0% while groceries increased from 62% to 92%. Some situational causes are illustrated in the quotes:

> *"Nelisiwe went to the funeral at Magontiya."*

> *"She went to a traditional ceremony."*

Attending a funeral and traditional ceremony may have required additional groceries to be purchased. Therefore, less was spent on electricity and more was spent on grocery expenses. The largest expense of R1,080.56 was on groceries in April. Other households that experienced once-off expenses as an anchor to other trade-offs included: HH521012, HH101019, HH101012, HH101016, HH101019, HH101020, HH201020, HH201026.

5.7.7 Theme 7: Business-home expense trade-off

The observation that income sources do not always come from formal (waged) employment means that many BoP households rely on informal trade and micro-entrepreneurship for income (Banerjee & Duflo, 2007; Charman & Petersen, 2017).

This informal business activity is known for inefficiency without sufficient scale, regulation and support (London & Hart, 2004; London et al., 2010). The result of the micro-enterprise activity is budgetary overlap as work-related and home-related expenses merge as expenditure in one area has an impact on the other. In the example of running small scale grocery or alcohol trade from home, supplies would come as a household expense as opposed to a large business where business expenditure and household expenditure would be separated. Income from micro-enterprise may also be unrecorded by data collection. For example, a street vendor who makes a small revenue could spend the income on replenishing stock. The income made would likely escape being recorded as household income is it was absorbed immediately by the micro-enterprise (James, 2014; Charman & Petersen, 2017).

In **HH521014, f**rom February to April there was a decrease in electricity from 7% to 0%. Both cell phone and cleaning materials increased from 0% to 3%, where cell phone expenses continued to grow to 9% and cleaning materials to 8% from April to May. The connection between expense trade-off and business expense is seen in the quotes that follow:

> *"Jabu went to order some clothes that she is selling for people at the pay points."*

> *"Jabu took her daughter to crèche so that she can be able to go and sell at pay points from the beginning of April."*

Owing to selling clothes, Jabu may have been required to use her cell phone more. Additionally, she may have been required to wash the clothing and therefore more cleaning material was required. The largest expense of R471.62 was on groceries in April.

HH521017 also saw an increase from 0% to 7% in cell phone expenses from February to March. From April to May, these cell phone expenses reduced back down to 0% while groceries increased to 98%. The home-business expense trade-off is seen in the quotes:

> *"I use SMS and WhatsApp to communicate with most of my customers."*

"We cook more food as we also have visitors during that time and I buy nice things."

"...to prepare for the visitors who are coming on Easter holidays"

This increase in cell phone expenses may be from contacting family members to organise gatherings and clients for business reasons. During the Easter period, the family hosted visitors, and this may have resulted in the trade-off between cell phone expenses and groceries.

From February to March, **HH521026**'s electricity expense decreased from 38% to 0% while groceries increased from 62% to 92%. Reasons for this are expressed in the quotes:

"She has started a crèche with some of her friends next to her house taking care of eleven kids."

"She went to a traditional ceremony."

Starting up a crèche and attending a traditional ceremony may have required additional groceries to be purchased. Therefore, less was spent on electricity and more was spent on grocery expenses. The largest expense of R1,080.56 was on groceries in April.

In **HH101022**, from February to March, groceries increased from 70% to 91%, and is explained in the following quote:

"I went to sell food at the rugby match."

Groceries expenses increased from February to March as food was sold at rugby matches. The largest expense of R1,457.00 was on groceries in February.

5.7.8 Theme 8: Informal savings (Stokvel) effects on category trade-off

Informal savings can act in a similar way to a sudden increase in income. While technically already recorded as income in previous months, a stokvel (described in Section 2.8.2.4) provides an increase in either disposable income (if the stokvel is cash based), or an increase in groceries and other household items (like cosmetics or

cleaning materials) in the case of a festive season hamper (Simpson & Dore, 2007; Skenjana, 2013; NASASA, 2016). The sudden (although expected) input can significantly change the expenditure patterns in a household.

Household 101019 saw a decrease in clothing expenses from 20.23% in December to 0.00% in January. Electricity expenditure was 10.35% in December; however, electricity expenditure was 0% for the remaining waves.

> *"I recall the funeral of my aunt - she was very old but we'll remember her kindness and caring humility."*
>
> *"This funeral also disturbed the family gathering that we planned."*
>
> *"Partnership meeting."*
>
> *"And try to get money to buy my children clothes for Christmas day and New Year's. They might not be expensive, but beautiful."*

Clothes had to be bought for the funeral and family gathering. For the partnership meeting, formal outfits had to be bought. From the interview, and because the clothing expenses increased after the festive season, it can be deduced that money was spent on buying new clothes for the children, explaining the large decrease. It seems the family may buy prepaid electricity, explaining the 10.35% spent in December and 0% in the four subsequent months.

The same household **(HH101019)** saw grocery expenditure at only 31.56% in December (which was at least 20% less than on average) and this then increased to 95.99% in February. Expenditure for the "other" category was 33.02% in January. In February and March, none was spent on this category.

> "*I'm very happy that my in-laws are coming to finish off lobola for my younger sister."*
>
> "*The food can last until next year, till second week of January. That's why stokvels help*."

"*Sometimes I overspend and then need to get things that are not beneficial, like alcohol or go watch the movies in a cinema*."

The sharp rise in grocery expenditure can be attributed to the fact that more groceries were needed to cater for the in-laws. Since most of the spending was allocated to grocery, there was very little spent in other categories. The stokvels enabled the family to purchase more groceries. In addition to this, it can also be concluded that, owing to buying in bulk and stokvels, the family still had groceries in January and did not have to spend much on this category. However, come February, they might have run out of most items and had to stock up on their groceries. High expenditure for the other category might be because of transport costs (to and from the funeral) and general funeral expenses such as monetary contribution to help out the family of the deceased. Other expenses can also include expenses towards the family gathering, such as contributing for drinks, food and other entertainment. From the interview, it is clear that the head of the family might have spent on alcohol or other leisure activities.

HH101019 saw an increase in expenditure in the categories cosmetics and health care. Cosmetics increased from 0% in December and January to 16.43% in March. Health care increased from 0% to 10.35%. Eating out expenditure also rose from 0% to 11.03% between January and March.

"There have been lots of weddings lately in the family."

"Attended a funeral of a colleague."

"Workshop at health department."

"We took a trip to social development to endorse a ruling party manifesto."

The family had to dress-up for the many weddings and thus bought cosmetics for the wedding occasions during March. They may not have had much to spend on the other categories and hence decided to focus on healthcare. This may have included general

check-ups at the dentist or doctor. On the way to the funeral, the family probably ate out. They also spent money on eating outside during the trip to social development.

HH101016 saw an increase in groceries from 35.95% in January to 67,75% in March. Stokvels are also mentioned among the quotes describing the situation:

> *"Schools have just closed and my children did well in their academic progress."*

> *"...groceries we get during December help and we also buy in bulk so that helps."*

> *"I have already joined a stokvel whereby we will be contributing R300 every month we take it to Freedom supermarket. We will collect that money at the end of the year."*

> *"In January I buy small groceries to add on December's groceries. I buy things like soap, chicken, bread."*

> *"I still have the grocery because they last. In December we bought things in bulk."*

Since schools have closed, the two children, who are at university, are likely to come home for the holidays, explaining the higher expenditure of groceries. From the interview, it can be deduced that the family did not have to spend much on groceries in December and January because first, they bought in bulk in December and secondly, the stokvel the household head had joined helped in accumulating groceries. Thus, they had to stock up in March only, explaining the increase in grocery expenditure.

Expenditure on cleaning materials in **HH101016** increased from 0.00% to 10.31% from December to January. This household also mentions stokvels in the quotes:

"I also have stokvel for soaps where we contribute R100 each month you get 2kg powder soap, 2 bar sunlight, soap for bathing and dishwashing liquid and sta-soft."

The family purchased their stock of cleaning materials in January, thanks to the stokvel. The increase is due to the fact that the family had to stock up on cleaning materials in January.

HH521019 decreased their grocery expenditure slightly – the amount decreased from 100.0% in February to 93.30% in May. The use of a stokvel was mentioned among the other situational variables:

"On the 17th February, Jabulile gave birth to a baby girl so there is an additional member now."

"There are some of the things that I am going to compromise from the grocery for the baby."

"As you know that stokvel food is too much so it stays until March."

Income earned in February amounted to only R300. Thus, the household could afford to buy only groceries. It is also possible that they were stocking up on groceries to prepare for the arrival of the new family member. The household head mentioned in the interview that they were going to adjust the amount of money they spend on groceries in order to fulfill the needs of the baby, again explaining the decrease in grocery expenditure.

From the interview, it can be deduced that the groceries bought in February last until April. Come April, the family does not have to spend much on groceries as they only have to replace those items that are finished. This therefore explains the decrease in grocery expenditure from February to April.

While some overlap exists, the eight themes described and illustrated above explain why the observed household expenditure category trade-offs took place in the sample

households. The next section summarises Chapter Five before the final conclusions to the study are made.

5.8 Chapter summary

This chapter detailed the findings of both the quantitative and qualitative branches of the study. Before observing the details of the financial data, the sample was first demographically compared to the most recent census data (StatsSA, 2011) in order to confirm whether they were BoP households appropriately representative of their surrounding community. While some slight outliers did exist within the sample, the overall trend showed a strong qualitative consistency. The financial diaries were then analysed according to wave consistency, income data and expenditure data. Large shifts in monthly income were observed in most of the households (both in total value and sources). In addition, category expenditures were observed to fluctuate considerably between months. The qualitative data was then analysed and applied to explain the category trade-offs. The trade-offs were eventually coded and synthesised into eight explanatory themes as detailed in Section 5.7. The themes included the impact of income variability on expenditure; the trade-off of groceries for entertainment or eating out; seasonal trade-off effects, the impact of a shock and the resulting trade-off and recovery; inter-month budgetary trade-offs; once off expense as an anchor to the trade-off ripple effect; business-home expense trade off; and finally informal savings (stokvel) effects on category trade-off.

The above findings will be drawn into a conclusion that connects the outcome of the data analysis with the problem statement and objectives of this study. Details of the conclusion will be presented in Chapter Six.

Chapter Six

Conclusions and Recommendations

6.1 Introduction

The findings of this study presented in Chapter Five provide new contributions to both academic research and management practitioners. In this chapter, the conclusions of this research will be discussed in relation to the research objectives. Furthermore, the implications of this study for both theory and practice will be presented along with suggestions for further research. The next section will briefly summarise the previous chapters of this thesis.

6.2 Summary of chapters

The first chapter provided a roadmap for the study by introducing the phenomena of study and identifying the theoretical background of both the BoP and decision making. The research objectives were distilled from apparent gaps in the current BoP and consumer behaviour literature. The methodological considerations were introduced, and the proposed contribution discussed.

Chapter Two provided the theoretical underpinnings of the BoP concept. The chapter began with an analysis of the BoP concept and the challenges in measuring the BoP. The chapter then discussed various characteristics of BoP consumers according to the body of global knowledge on the subject. The chapter then transitioned into an overview of the South African BoP literature. Finally, the literature was synthesised and the gaps in understanding this phenomenon were further emphasised.

Chapter Three provided the theoretical underpinnings of the decision-making process. The chapter first introduced the decision-making concept and some of its history. The various models of consumer decision-making were then analysed in relation to their appropriateness in understanding South African BoP consumers. The chapter then discussed consumer loyalty followed by an overview of BoP decision-making

research in South Africa. Finally, the chapter synthesises the BoP decision-making literature and further emphasises the gaps in understanding BoP decision-making.

Chapter Four was a complete explanation of the research methodology. The chapter went through an explanation of the research philosophy, the research strategy and the research design. The methodology was then introduced (mixed methods), and the sampling methodology was explained. The design of the measurement instruments was followed by a description of the data collection and analysis. Bias and validity were discussed along with the limitations of the study.

Chapter Five focused on the findings of the research. Details of the sample households were provided as well as the sample validation. The fieldwork waves were described and the analysis of each element was explained. First, the financial diary data was analysed (income and expenditure). Second, the interview data was then added so that the observations from the financial diaries could be qualitatively understood.

Chapter Six will discuss the findings from the research connected to each of the three research objectives. Final conclusions will be drawn and managerial implications made. Finally, recommendations for future research will be proposed. The next section will summarise the findings of each research objective.

6.3 Summary of findings

This section summarises the findings. The research question stated in Section 1.3 was as follows:

> *What are the monthly income and expenditure fluctuations and category trade-offs in South African BoP households, and what causes these trade-offs?*

Within the frame of the research objective, the three secondary objectives were distilled, the successful achievement of which will now be individually discussed.

The first objective was to quantify monthly income and expenditure fluctuations in a sample of South African BoP households. This objective was achieved as 210

successful diary waves were completed and analysed in Chapter Five (Section 5.5 and Section 5.6). The results showed significant quantifiable fluctuations in both income and expenditure.

The second objective was to describe what monthly category expenditure trade-offs take place in the sample of South African BoP households. This objective was achieved as all eighty households were quantitatively compared for monthly category-expenditure trade-offs (as illustrated in Section 5.5 and Section 5.6). The results showed that all of the households displayed various degrees of expenditure category trade-off. The trade-offs were recorded (Section 4.6.1) and the results were then analysed qualitatively as per the third objective below.

The third objective was to explain what situational variables influence category expenditure trade-offs that occur in South African BoP households. By applying the interview data to the observed quantitative trade-off observations, the study was able to draw out eight identifiable factors that influenced the observed monthly expenditure trade-offs (Section 5.7). The eight factors were first, the fact that income variability impacts on expenditure. Second, that groceries were often traded for entertainment or eating out. Third, a seasonal effect had an impact on monthly expenditure. Fourth, financial shocks would result in a short-term trade-off followed by financial recovery. Fifth, budgets were noted to extended to multiple months with consequent monthly trade-offs. Sixth, large once-off expenses would be an anchor for expenditure trade-off in other categories. Seventh, the margining of home and business expenses resulted in expenditure variability. Eighth, informal savings (stokvel) had an impact on category expenditure variations. These eight factors create a new set of insights for researchers and practitioners alike.

The successful completion of each objective leads to the final stage in the research process, the discussion of conclusions. In the next three sections, the findings have been synthesised into nine conclusions divided into contributions to consumer behaviour research, BoP research and marketing practitioners as presented in the next section.

6.4 Overall conclusions to the research problem

The research problem (Section 1.3) identified that a lack of data on monthly expenditure patterns in BoP households means that marketers are unable to understand fully the likelihood of and reasons for monthly category expenditure trade-offs. This study has sufficiently identified both a description of household expenditure fluctuations and explored a set of eight reasons why such fluctuations and trade-offs occur.

6.4.1 The impact of situations on BoP decision-making

The findings of the study identified situational variables as being largely significant in the expenditure patterns of BoP households. Funerals, job losses, traditional ceremonies, and small-business expenses were among the many situational variables that created category trade-offs within household expenditure (Section 5.7).

The role of situational variables was not well represented in the range of decision-making models outlined in the literature review. Chapter Three detailed the history of decision-making from its roots in economics and social psychology all the way through to an analysis of thirteen decision-making models used by marketers in the last six decades (Section 3.3). Table 6.1 is a summary of whether situational influences are stated, omitted or implied in the models.

Model	Situational influences		
	Stated	Implied	Omitted
Andreason Model (Andreason, 1965)		✓	
Howard-Sheth Model (Howard and Sheth 1969)			✓
Industrial Buyer Decision Model (Sheth J, 1973)	✓		
Nicosia Model (Nicosia and Robert 1976)			✓
Bettman's Information Processing Model			✓
Consumer Decision-Making Framework (Gilbert			✓
The Sheth-Newman-Gross Model (Sheth et al,			✓
Stimulus-Response Model (Middleton & Clarke,			✓
The 'Black Box' Model (Schiffman and Kanuk			✓
Engel-Kollat-Blackwell model (Engel et al,	✓		
Solomon Model of Comparison Process	✓		
Schiffman and Kanuk Model (Schiffman and		✓	
Hawkins, Best and Coney Decision Model	✓		
Hawkins and Mothersbaugh (2013)	✓		

Table 6.1: 'Situation' as a function of various decision-making models

Of the models, the one that had most relevance to the findings of this study was Hawkins and Mothersbaugh (2013) reinserted in Figure 6.1.

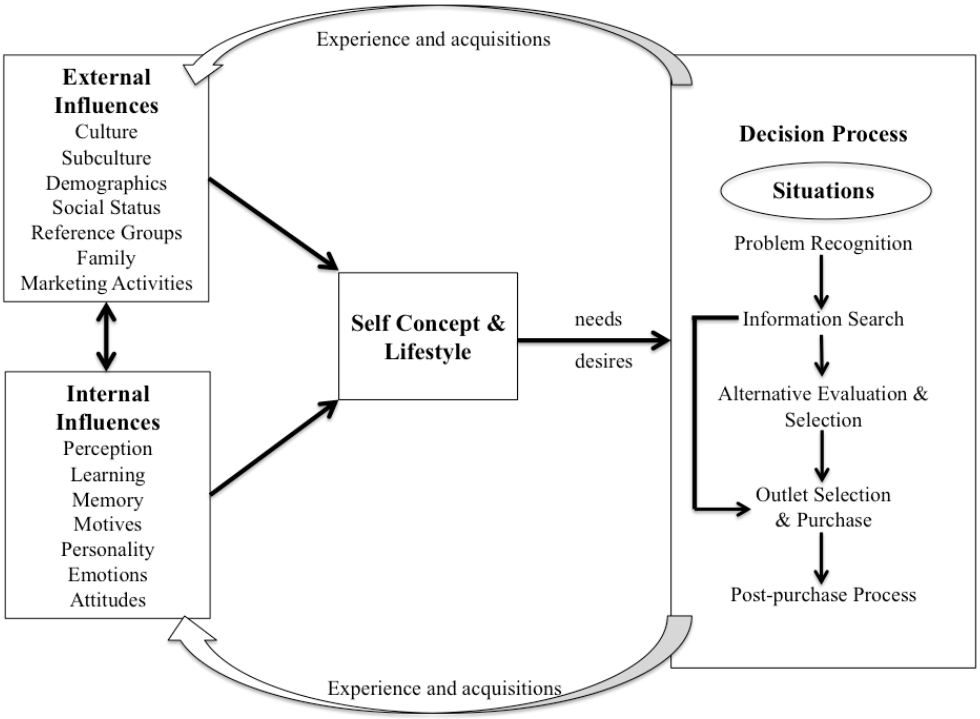

Figure 6.1: Hawkins and Mothersbaugh (2013)

The findings of this study place Hawkins and Mothersbaugh (2013) as the only appropriate model to understand South African BoP decision-making since it adequately shows that all the internal and external drivers of behaviour are often filtered by a direct situation that has a larger impact that the others combined.

Figure 6.2 is a simplified version of how situational variables can trump many classic drivers of behaviour. This is an actual case from HH201015 in Mthatha. Although it was the festive season, the household needed to hire a tractor to plough the home vegetable garden. The household is in a peri-urban area, and subsistence farming is a means of maintaining a livelihood. A tractor costs between R500-R1800 depending on the size of the plot. The household earned R4260 in December (although that dropped to R1400 in February). While the household participants have a number of preferences, cultural inclinations and various motivations that drive what food they purchase, the expenditure shock of a R500-R1800 expense on tractor hire had a large

impact on food choice (see Section 6.2.1). While all the other factors remain in-tact, the situational variable might, for example, directly impact the choice of bread as depicted in Figure 6.2.

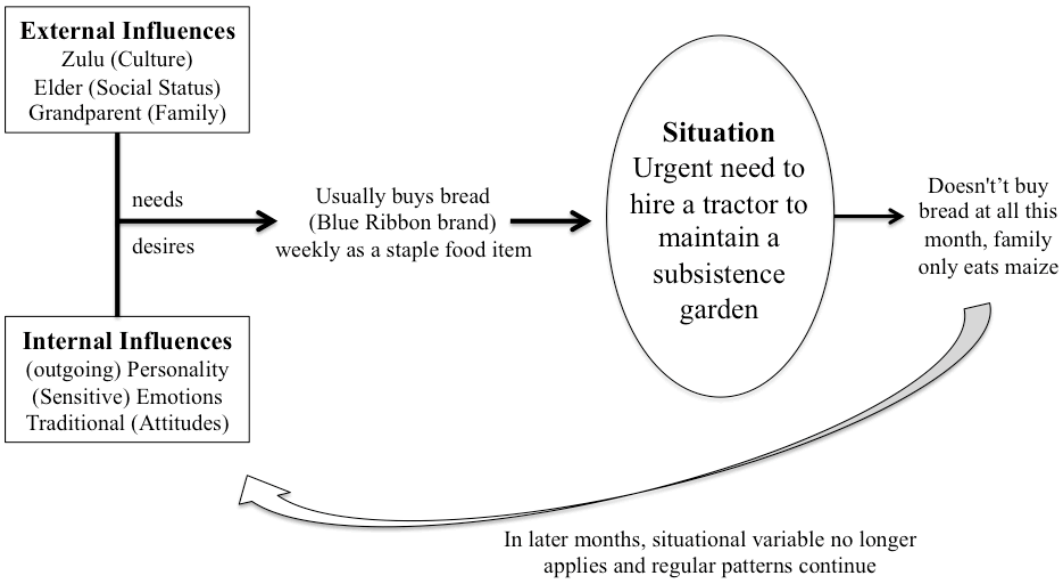

Figure 6.2: The role of a situation in overriding the regular internal and external drivers of behaviour in HH201015.

Once situational variables have concluded their influence, they cease to be situational variables (influences), and regular patterns of behavior resume, propelled by both internal and external drivers of behaviour. The omission of situational variables as a significant factor in decision-making processes is evidence of the BoP market being excluded from core marketing theory. Shiffman and Kanuk's (1997) model, for example, is well-cited in contemporary articles and consumer behaviour textbooks (Mpinganjira & Dos Santos, 2013; Parumasur & Roberts-Lombard, 2013; Prasad & Jha, 2014; Boshoff, 2017). Their model depicted in Figure 6.3 only implies the role of situational variables, and hence is inappropriate for explaining BoP consumer behaviour. Similarly (but not in the scope of this research) another feature missing in the Schiffman and Kanuk (1997) model is the identification of outlet selection as a major decision-making field. This feature is particularly salient for BoP consumer models.

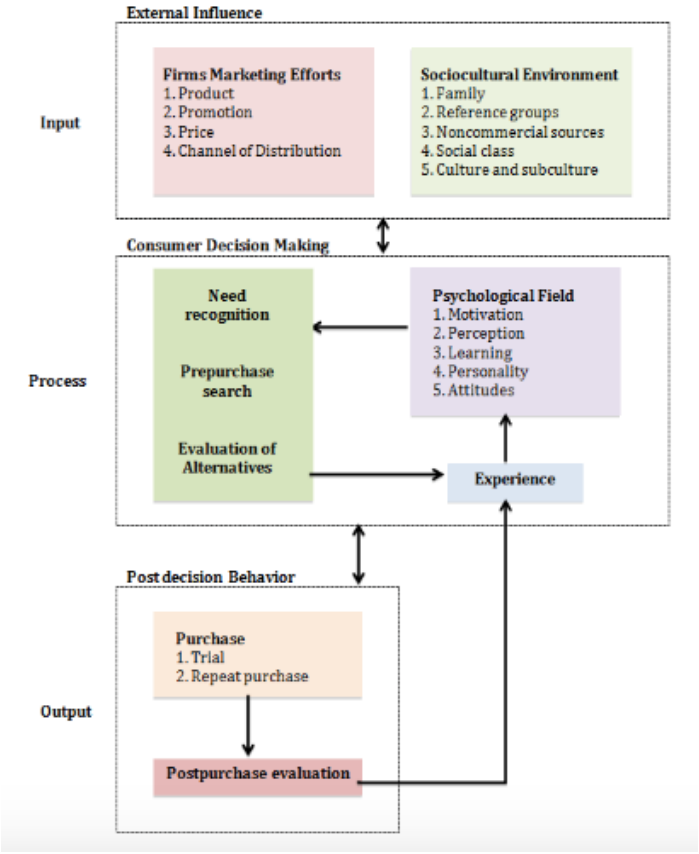

Figure 6.3: The Schiffman and Kanuk Model (1997; 2014)

The conclusion above also highlights the need for marketing theory to include the involvement of marketers in positively influencing BoP consumers into core marketing theory. Providing assistance to consumers has traditionally fallen into the category of social marketing or sustainability (Kotler & Armstrong, 2015; Apsey, Stander & Grant, 2017). Since situational variables have such a large impact on BoP consumer behaviour, the question remains as to why marketing innovations on how to influence immediate circumstances have not been significantly developed. To date, marketing theory related to consumer situation focus on point-of-purchase topics like atmospherics and social surroundings (Hawkins & Mothersbaugh, 2013). Such topics are applicable to BoP consumers, but do not encompass the full range of situational variables that directly impact BoP consumer behaviour. As discussed in this section, situational variables have a potentially significant impact on BoP consumer behavior, and yet marketing theory does not provide many options by which marketers can influence the situation of their consumers in order to help drive behaviour (and probably many other internal and external drivers too).

6.4.2 Routes to different BoP household category expenditure mixes

The observations made by the quantitative component of this study showed that category expenditure often showed significant shifts between months. This observation was then expanded to answer the question of what phenomena drive these expenditure variations and category trade-offs. Figure 6.4 is a schematic of the findings in Section 5.6 and Section 5.7, whereby a shift in category expenditure can be influenced by multiple factors.

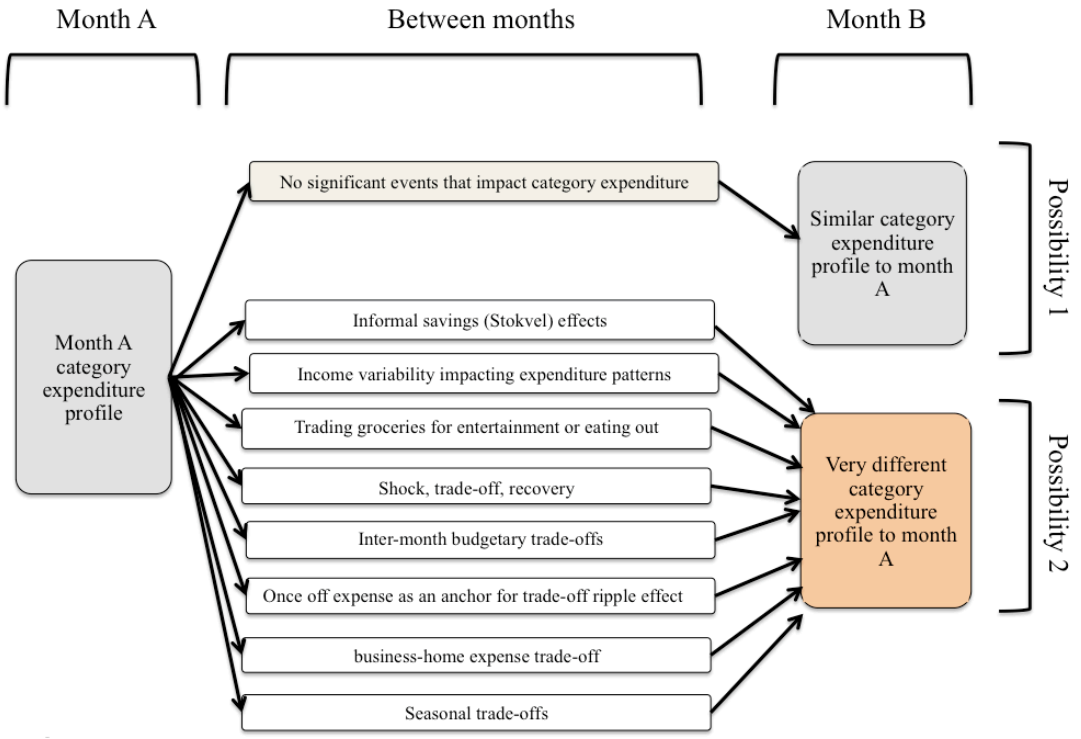

Figure 6.4: Identified pathways to a significantly different category expenditure profile

In Figure 6.4, a particular household will display a certain expenditure profile in a given month (month A).[38] If no significant event occurs that could impact category expenditure, the expenditure profile might be relatively similar the following month (Month B, Possibility 1). Should one of the phenomena mentioned in Chapter Five (Section 5.7) be significant, there is a strong possibility of the category expenditure profile changing (Month B, Possibility 2). The above selection of pathways to category trade-off provides a filter by which to understand consumer trends. For example, the points related to the seasonal trade-offs and stokvel season (where

[38] See, for example, the HH201017 in Figure 6.11

applicable) might involve a different (and more predictable) strategy than those phenomena that are less predictable. Shocks, for example, are difficult for marketers to predict, and would require a more agile strategy in order to maintain consumer connection.

The findings of this study make a significant contribution to understanding decision-making in South African BoP households, as well as to consumer behaviour theory since without establishing a sufficient understanding of possible monthly fluctuations in BoP expenditure, observers may misunderstand the mechanics of BoP decision-making.

6.5 Theoretical recommendations

The conclusions of this study provide a set of theoretical implications and recommendations to further the study of BoP consumer behaviour.

6.5.1 The need to include category trade-off in BoP loyalty models

As discussed in detail in Chapter Three, loyalty models are often centered around inter-category switching (for example SOCR and SOW) as brands compete against each other for loyalty. This study underlined the need to have a broader view of consumer loyalty that accurately accounts for the competition between categories. In addition, research that observes average income and expenditure is in danger of creating a consumer behaviour profile that does not accurately reflect the consumers under observation. In addition, decision-making theory is exposed to some new variables that are not well documented in the current literature. Each of these points will be discussed in the next sections.

The results of this study show that significant expenditure category trade-off occurs on a monthly basis in the sample households (Section 5.6). To date, there is no direct metric for measuring this trade-off phenomenon in spite of the major impact that it has on the understanding of individual category loyalty. The dynamics of income and expenditure have an impact on every aspect of understanding BoP consumer behaviour. Particular to this study is how income and expenditure variation impacts on loyalty models.

In order to appreciate fully the potential implications of a misunderstanding of category share of expenditure (now coined: CaSoS), Figure 6.5 depicts how the choice of a particular brand of rice needs to go through a set of precursory category loyalty filters.

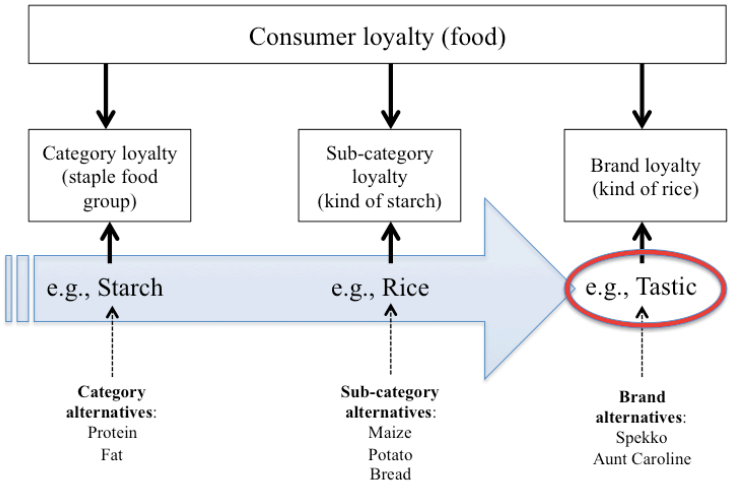

Figure 6.5: Choosing a rice brand as part of a larger process of category loyalty

In Figure 6.5, the choice of rice brand (Tastic) was directly connected to loyalty to rice as a starch (as opposed to sub-category alternatives like maize). In addition, the process shows that starch itself was shown loyalty as a staple (as opposed to category alternatives like protein). Metrics such as SOCR and SOW bring some understanding to this phenomenon (Section 3.4.2). In this study, a deeper level of category loyalty emerged. Figure 6.6 shows that before the choice was made regarding which staple food group to purchase (leading to starch, then to rice and then Tastic rice), there was an option to spend the same money on mobile phone airtime, funeral contributions, school fees or business supplies (all real category trade-offs from the research findings). At this level of analysis, Tastic rice was (at one point in the process) competing with mobile phone airtime for share of the same expenditure. Owing to the resource constraints of BoP consumers, expenditure on both options would not be possible on every occasion.

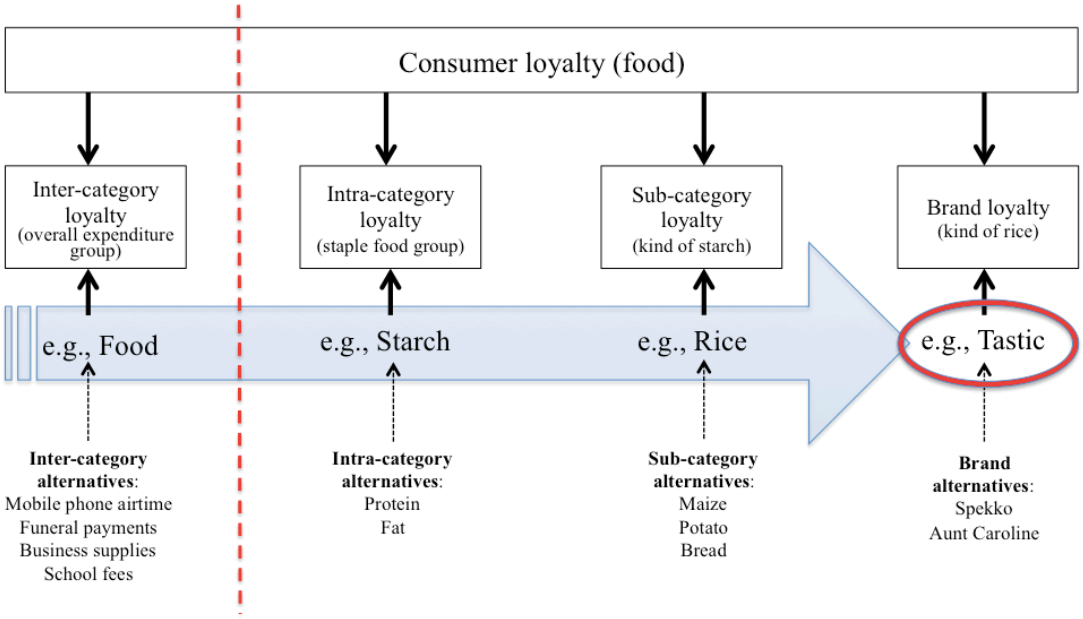

Figure 6.6: The consumer needs to show loyalty to a category before loyalty to a brand

This research showed significant inter-category trade-off occurring on a constant basis. By including category loyalty as a significant part of loyalty modeling, marketing scientists will better depict patterns of behaviours. BoP consumers in particular, as shown in this study, can display major fluctuations in expenditure, and significant inter-category trade off. By leaving category loyalty out of loyalty models, a gap exists. Figure 6.7 is a depiction of Jones's (1995) Apostle model of loyalty (as discussed in Chapter 3). The model depicts a loyalty-satisfaction axis and is helpful in understanding that loyalty is not random and is closely connected to performance.

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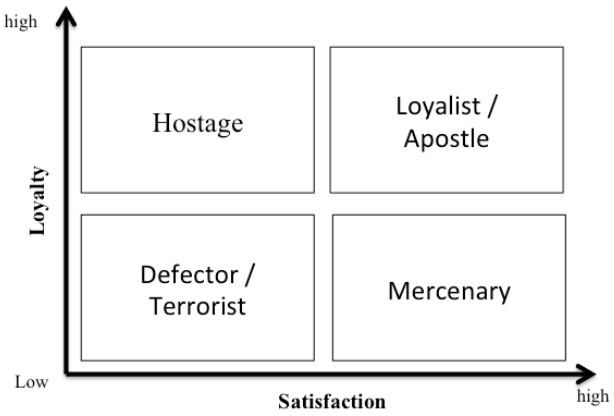

Figure 6.7: The Apostle Model (Jones, 1995)

The model, however, fails to account for (temporary) category trade off. The consumer in Figure 6.6 may have chosen not to buy Tastic rice in order to contribute to a funeral for that month. In that instance, the consumer was not dissatisfied with the product (Tastic). Rather, they were constrained to a simple trade-off based on resource limitations. In the model, the consumer would unlikely fit into any of the above loyalty categories. Figure 6.8 proposed an additional category be formed to allow for high satisfaction without being seen as a mercenary seeking better value elsewhere.

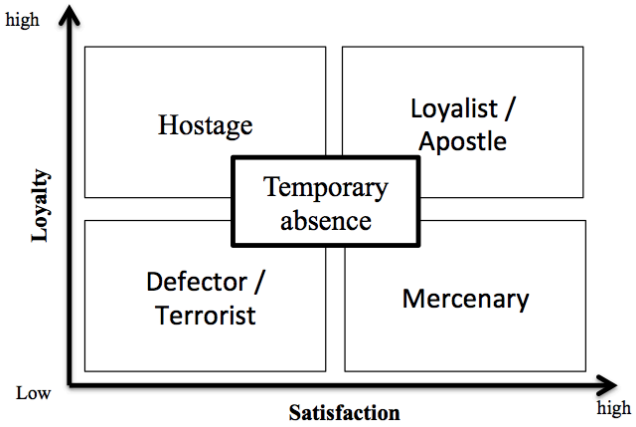

Figure 6.8: The Apostle Model updated to include temporary absence that could be accounted for in category switching (adapted by the author from Jones, 1995)

The adapted Apostle model now allows for phenomena like temporary category trade-off, as observed in this study's sample of BoP households. While acknowledging that the study did show significant evidence that consumers may stop purchasing a particular product (brand by implication), defection (switching) to another brand was not necessarily the reason. By allowing for category trade-off, the Apostle model now has more BoP relevance. This conclusion holds much empirical evidence from the findings, but whether the same principle holds in non-BoP households fell outside of the scope of this study (discussed further in Section 6.5). In Section 6.4.1, a proposed metric for quantifying CaSoS is discussed for marketing practitioners.

6.5.2 Interpreting BoP averages with caution

At a fundamental experimental level, averages are used to measure central tendency (like median and mode). The value in averages is that they can even out random errors with the goal of achieving a true result from an experiment (Pfenning, 2010; Patten, 2016). The fact that a large amount of data can be expressed as a single figure is convenient, and yet for behavioural data there are limitations to using averages as the results of this study testify. Figure 6.9 is a pie chart from StatsSA (2015) that shows South Africa's average household expenditure.

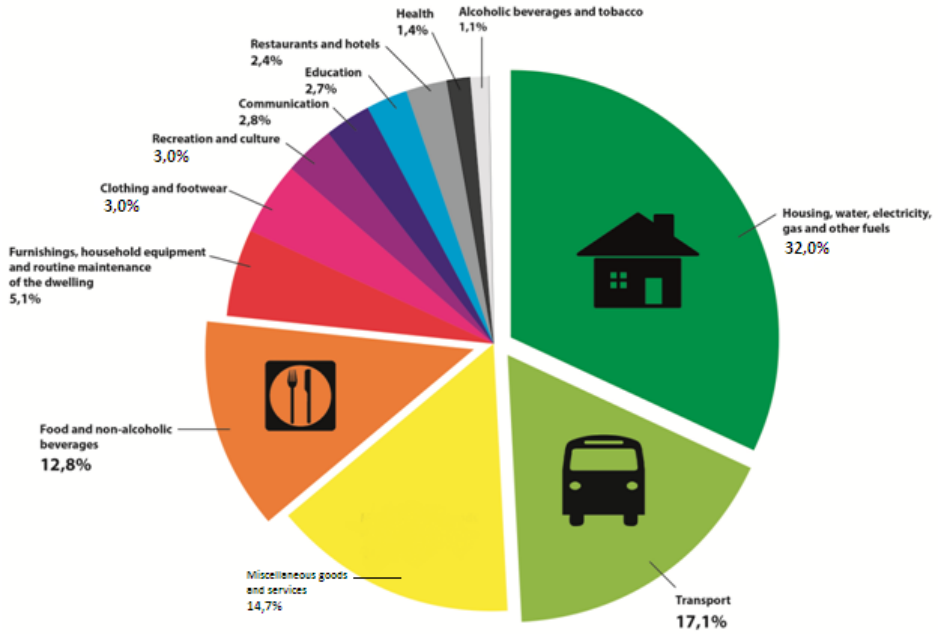

Figure 6.9: StatsSA's Income and Expenditure survey results (StatsSA, 2015)

The result from StatsSA's finding has some benefit in understanding the macroeconomics of South Africa. For the majority of the country (the BoP), however, this average does not explain the reality of their expenditure, nor is it helpful to those who market to BoP consumers. The averages shown in Figure 6.9 include those in the minority (population wise), but who contribute 70% of the countries spending power (Simpson, 2017). The average in that particular measurement, therefore, is not the central tendency for South African households (by number not value).

When illustrating the above point with the average expenditure from this study, a different picture emerges. In Figure 6.10, a far greater portion of expenditure is placed on groceries, with transport, housing and services being much lower than observed in Figure 6.9.

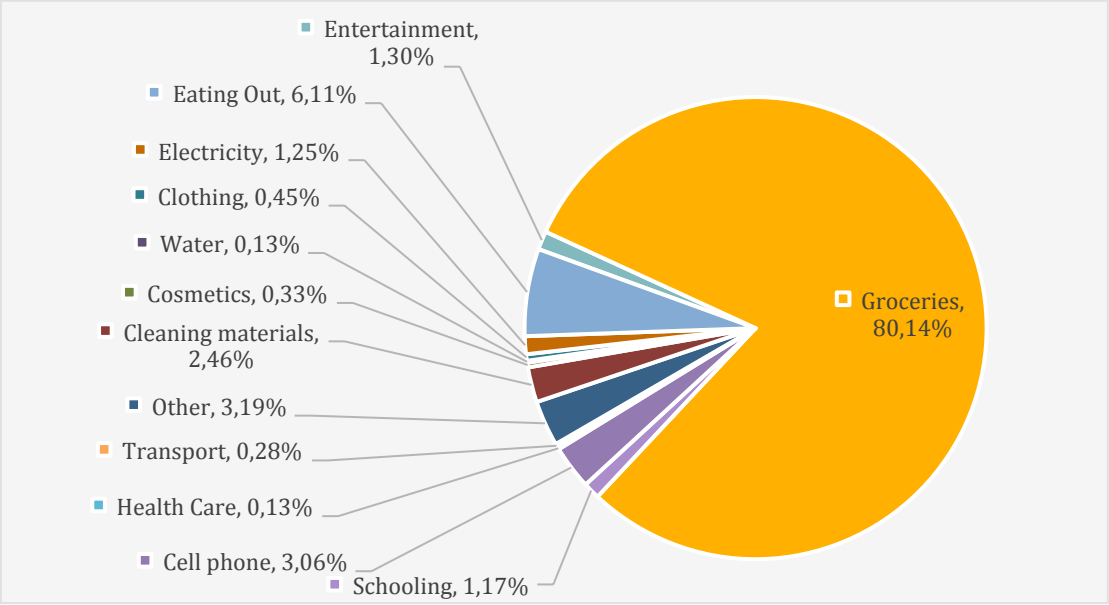

Figure 6.10: Average category expenditure in the study sample

As expected, lower income households do spend more on essentials like food, which is why they are usually more impacted by inflation. In addition to this, food inflation can often exceed other elements of the Consumer Price Index basket (Sarkar, 2016). Figure 6.9 and Figure 6.10 show vastly different realities.[39]

One of the key observations in the whole study was that income and expenditure fluctuated significantly when measuring the sample of BoP households. The fluctuations mean that averages (especially over a short range of months) can be misleading. Figure 6.11 shows a household from the sample (HH201017).

[39] Note that both surveys took household (and not individual) data

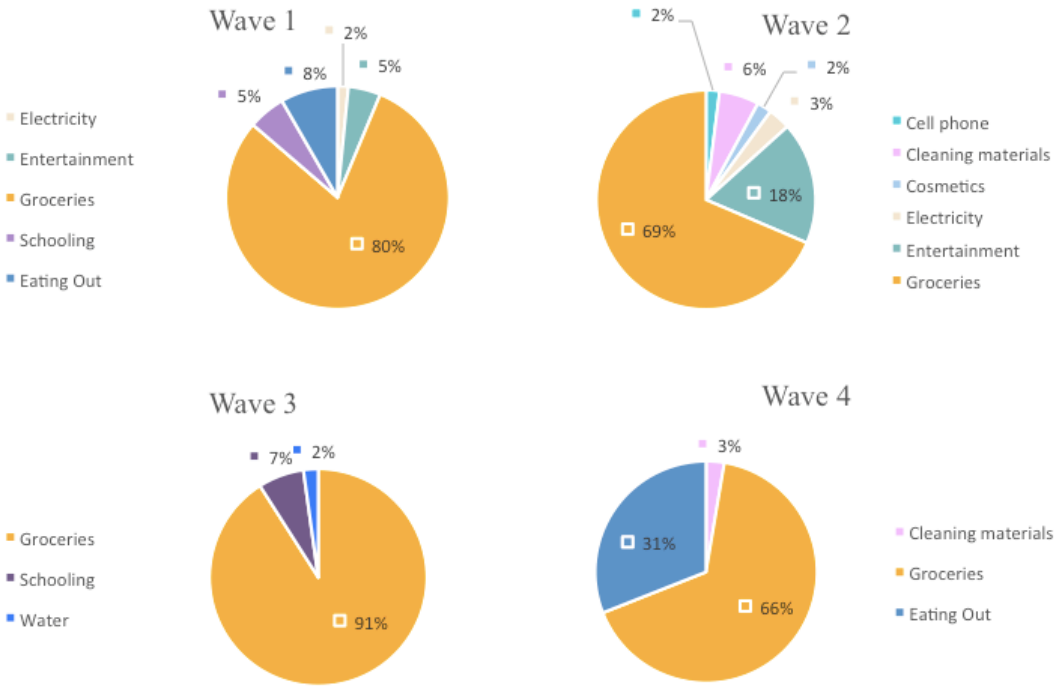

Figure 6.11: HH201017, Category expenditure per wave

The category expenditure per wave was very different to the average for all four waves combined (Figure 6.12) as each wave showed some significant variation.

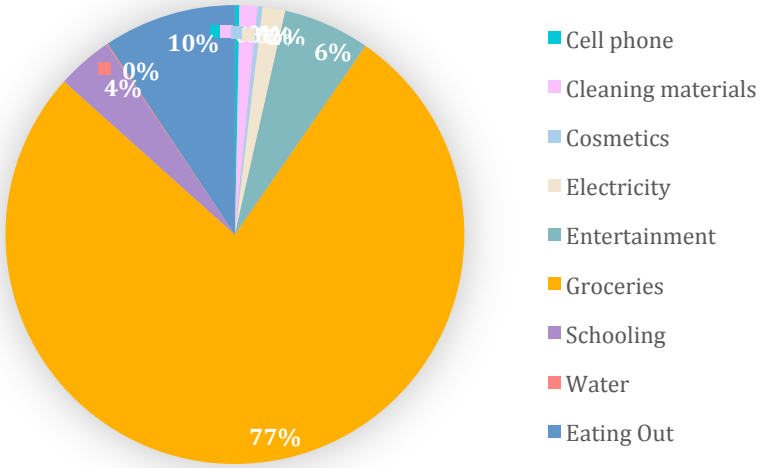

Figure 6.12: HH201017, Category expenditure waves 1-4

When an expenditure average is a poor representation of immediate purchasing behaviour, it ceases to hold as much meaning. The findings of this study prove that marketers need to interpret household averages with caution in light of the significant fluctuations that occur. While not in the scope of this study, this finding also holds value in understanding that cross sectional studies that compare multiple BoP

households with a single data point will lose some rigour in finding a reliable average since the monthly household income and expenditure variation can be significant. The acknowledgment of this has not been common practice in limitation acknowledgments in BoP articles (see for example, Barki & Parente 2006; Human et al., 2011; Chipp et al., 2012; Prasad & Jha, 2014)

6.5.3 Understanding the role of situation in marketing strategy

Figure 6.13 presents a model that may guide the further development of situational theory in decision-making. The model takes a list of decision-making variables described by Hawkins and Mothersbaugh (2013), and separates them according to how much direct influence marketers have over them. For example, marketers have significant influence over promotional activity, but not over culture as a whole.

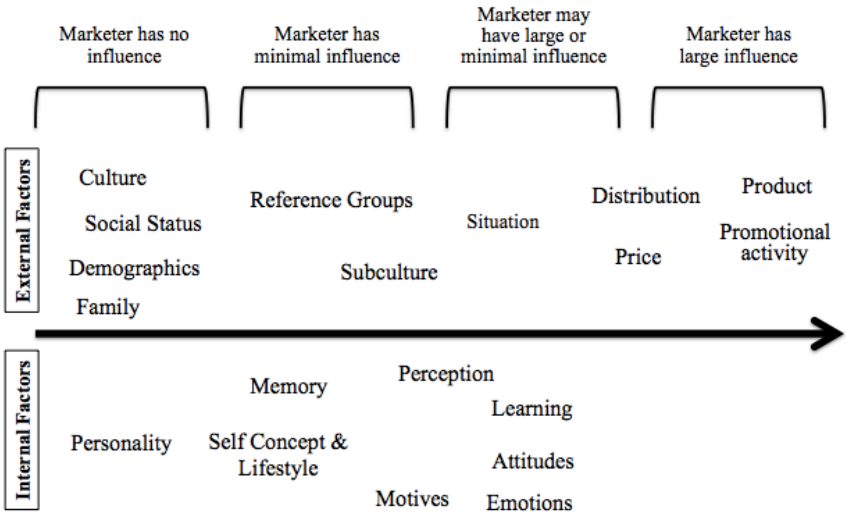

Figure 6.13: Internal and external drivers of behaviour and the role of the influence of the marketer (authors conceptualisation based on synthesis of consumer behaviour theory)

While it is clear that some drivers of behaviour are easier to influence than others, marketers try to influence (or use) these drivers in order to promote consumption and loyalty. Shiffman and Kanuk (2014), for example, illustrate how marketers try to influence perception, subculture and attitude. Marketers will also influence reference group behaviour through endorsements, and try to appeal to personality. Successful marketers will bring more and more elements of consumer behavior into their realm of influence (See Figure 6.14).

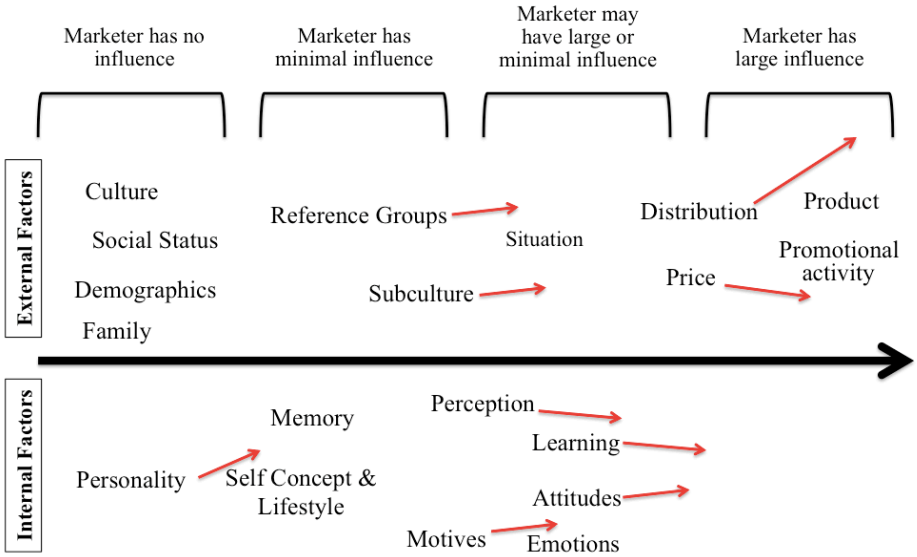

Figure 6.14: Marketers bringing more drivers of behaviour into direct influence

Marketers can potentially impact the different drivers of behaviour through different means, for example: advertising and promotion (attitude, perception), reputation management (attitude), classical conditioning (learning), endorsements (reference groups, subculture), better control of route-to-market (distribution), skipping intermediaries (price).

Marketing theory needs to include into core knowledge the means by which practitioners can impact the direct situation of BoP consumers. Instead of social marketing and sustainability being a small subset of marketing, the role of marketer to be an influencer of situations can have a dramatic effect on Prahalad and Hart's (2004) proposition that poverty can be alleviated and profit made at the same time. Figure 6.15 shows a schematic of the potential knock-on benefits of having a greater direct influence on BoP consumer's situations.

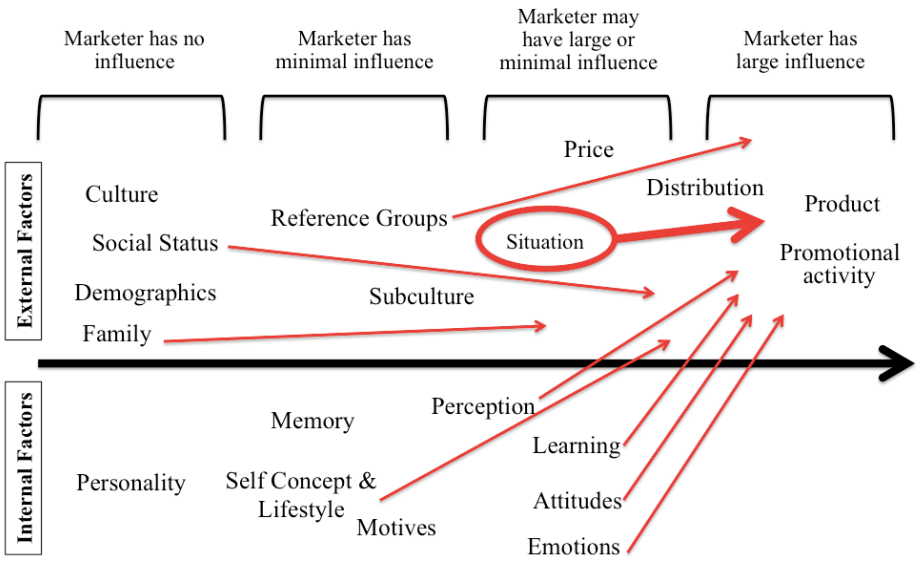

Figure 6.15: Marketers influencing situations (instead of working around them), and thereby also impacting other behavioural drivers.

The scope if this study did not allow for analysis of possible ways to achieve the abovementioned propositions. While this finding is based on observations in the study, the model itself will require further exploration and testing.

6.5.4 The need to have country specific BoP consumer market definitions

Chapter Two analysed the existing literature on the BoP concept, and how BoP consumer behaviour has been categorised. When comparing non-South African BoP consumer behaviour characteristics to those found in South Africa, a number of similarities and differences emerged. Figure 6.16 shows a summary of the literature review findings.

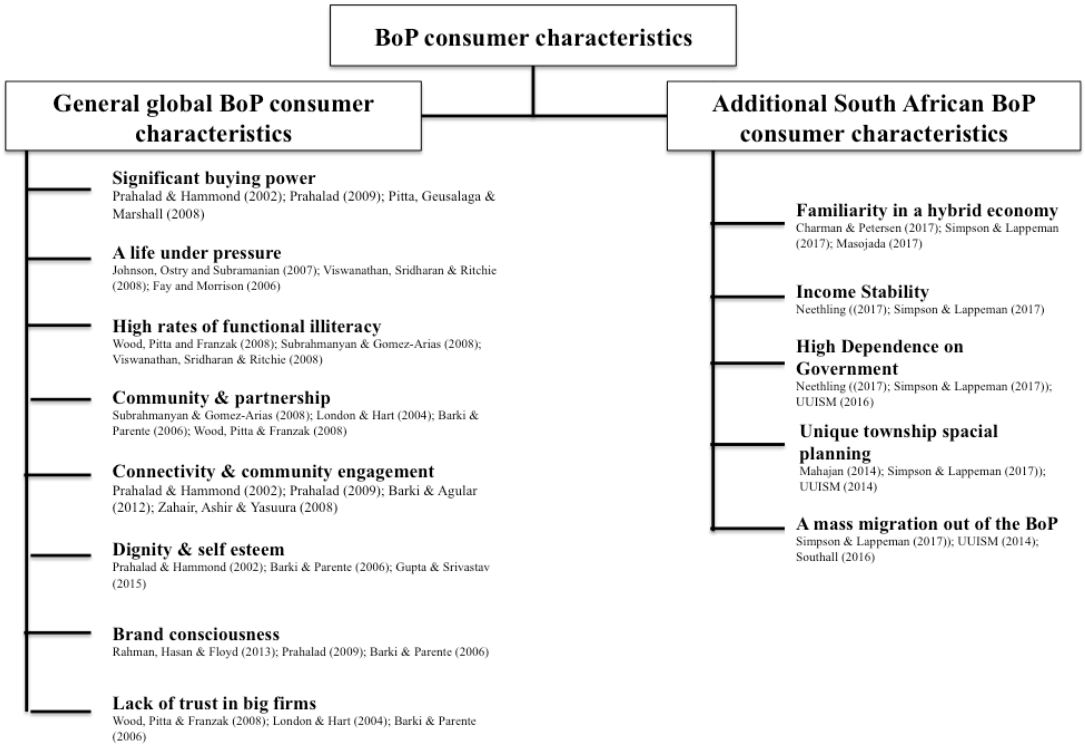

Figure 6.16: Global and South African specific BoP consumer characteristics (author's own summary)

Figure 6.16 illustrates two conclusions to defining BoP country characteristics. First, there are BoP consumer characteristics that two countries may share. Second, there are country-specific BoP consumer characteristics that two countries may not share. In order to continue the development of BoP theory, the above literary findings lead to a proposition that BoP markets each create their own mix of characteristics that would best fit the reality of the BoP population. In doing this, marketing strategy will be better informed. Figure 6.17 is a schematic of a process whereby the global body of BoP literature can be combined with local research in order to create unique, country-specific BoP profiles[40].

[40] Note that while many countries have a BoP majority, research on low-income consumers is also conducted in high net-income countries

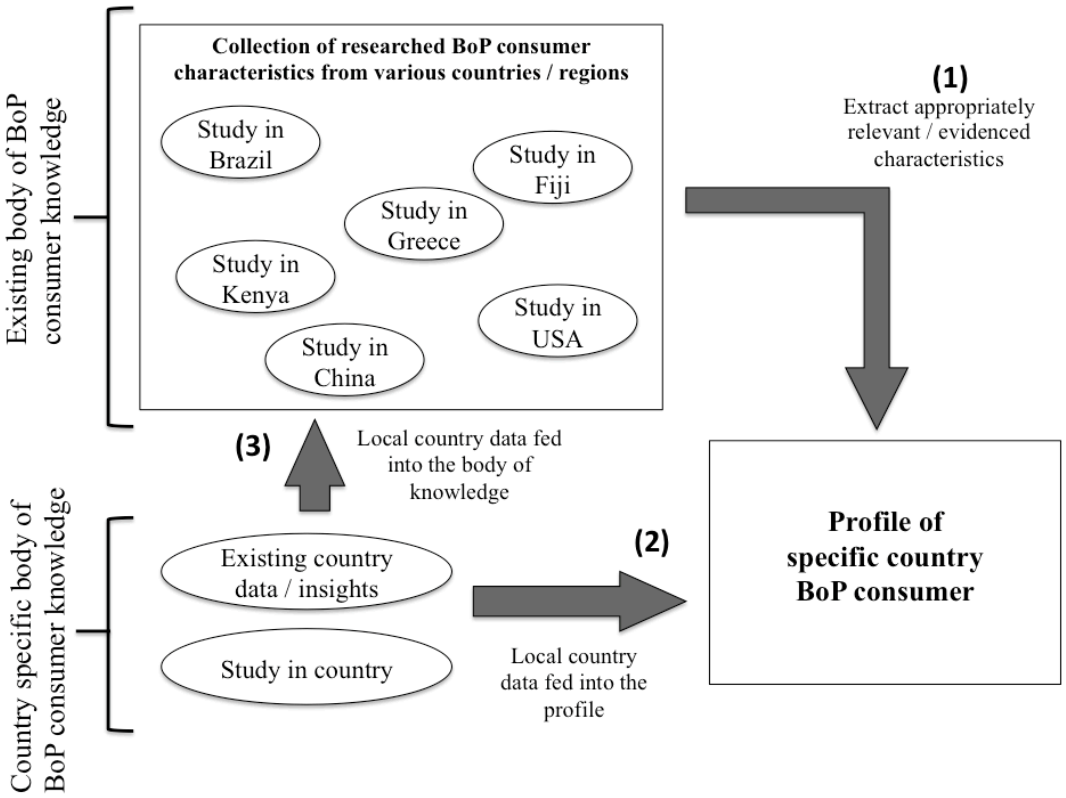

Figure 6.17: Three stage methodology for developing country specific BoP consumer characteristic profile.

The methodology pictured in Figure 6.17 shows a three stage (continuous) process whereby all BoP consumer research would form a finite body of published knowledge on BoP consumer characteristics from various countries and regions. A specific country could then take existing data / insights as well as in-country BoP research and combine it with appropriately relevant characteristics from other country research to create a country-specific profile. Any new study or insight could then be fed back into the general body of knowledge possibly to inform other country profiles.

The adoption of a model that accounts for BoP market heterogeneity will help to prevent inaccurate consumer profiling and the inappropriate transefer of insights between inter-regional BoP studies.

6.5.5 A need to improve BoP income and expenditure survey methodology

Income and expenditure survey data has been common in South Africa since 1994 (Section 2.11). Almost all of the surveys took a large scale cross sectional measurement of the population. This study illustrates how cross sectional data in BoP household research does not always give an accurate reflection of household income

and expenditure patterns. Chapter Five showed that income can fluctuate by a factor of more than 100% between months. In addition, the variation between monthly expenditure categories is often very large. Taking a cross sectional measurement of a BoP household can, therefore, be very misleading. Below is a graphic representation of the three main kinds of cross sectional surveys conducted in South Africa since 1994.

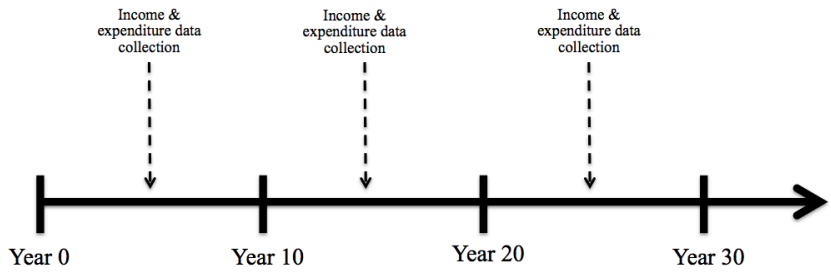

Figure 6.18: One survey every ten years

A full census is very time consuming and costly so South Africa has only one every ten years. The last South African census was in 2011, and the next is planned for around 2020 (StatsSA, 2016). Since a census is meant to include the whole population, there is much value in gaining macro data of this magnitude. The fact that it is conducted so infrequently means that it is beneficial for demographic data, but not necessarily appropriate for behavioural research.

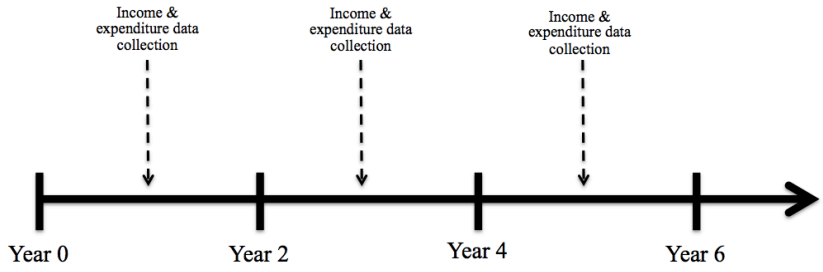

Figure 6.19: One survey every two years

NIDS conducts its household and individual income and expenditure surveys every two years. This interval is useful for tracking changes (as opposed to the ten year intervals of a census). The gaps, however are still too long to understand the nuances of consumer loyalty.

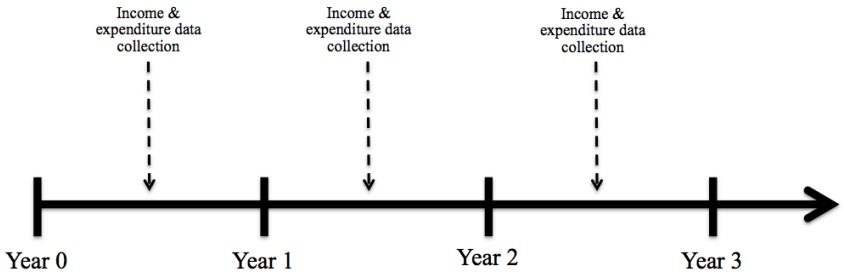

Figure 6.20: One survey every year

An annual survey would be an improvement on the accuracy of a bi-annual survey, but is costly and there is a chance that not many major demographic variables will change in a single year. This kind of annual survey is hypothetical to South Africa as no such survey exists. The concept, however, leads directly to the model used in this study. Instead of taking a once-off income and expenditure reading to account for a year or longer, this methodology was able to monitor monthly shifts in expenditure.

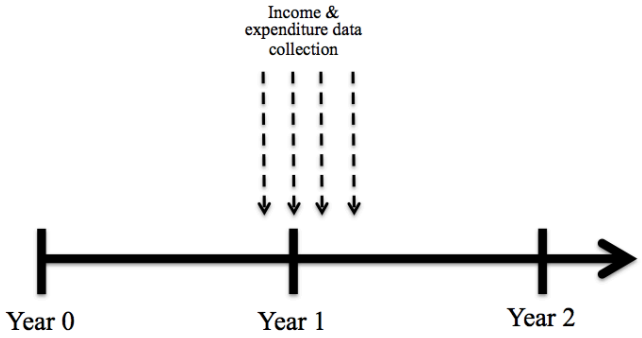

Figure 6.21: Measuring monthly income and expenditure

Although very costly and full of timing challenges, to gather such a spread of data over a short period of time allowed for very personal details of consumption patterns to emerge (Chapter Five).

In addition to the benefits drawn from the timing of this income and expenditure study, a few additional methodological lessons were learned. First, the date of data collection matters. Certain months display significantly different results to the rest (for example, December and January). While all outliers cannot be accounted for, consideration must be made for such phenomena. This study was not attempting to make deductions on the amount of income / expenditure. The focus of the study was

on variation between months. Any surveys that want to aggregate or generalise their results must be careful that they time their cross sectional surveys with each other to give a more accurate result. Second, an adjustment amount may be calculable if an area test sample is run before a major survey. In the case of a particular month having unique qualities, the recorded data could then be recalculated to factor in the different timing of the survey. Third, a standard coding schedule should be created for all South African (and even global) income and expenditure or census data. When researching the methodology for this study, there was no clear standard for measuring income and expenditure. While some obvious overlap did exist, a standard (locally and globally) would assist in large data comparisons, and would also help reduce ambiguity. In the next section, the contribution to marketing practitioners specifically is discussed.

6.6 Implications for marketing practitioners

BoP marketing practitioners are faced with complex questions about the nature and profitability of BoP markets. The gap in practitioner knowledge is often defined as the management dilemma. The management dilemma is more technically defined as any problem or opportunity that requires a management decision (Blumberg, 2008). In business, management dilemmas are not always clearly demarcated in spite of the interest in formulating scientific approaches to solving problems. Contemporary research has segmented the study of the BoP into various disciplines which include strategy, entrepreneurship, international business, information technology, marketing, development studies, corporate social responsibility, design and management (Kolk et al., 2013). BoP consumer behaviour has received growing interest from researchers, but is still underrepresented in literature (Chikweche & Fletcher 2012). This gap creates a challenge for marketers who by definition are tasked with understanding and meeting consumer needs (AMA, 2016).

Without understanding consumer needs, attitudes and behaviours, marketers will fail to develop viable products, brands, value chains, pricing strategies and communication strategies in a BoP marketplace that is increasingly complex and competitive. There is no shortage of examples of MNCs that have attempted to build

their BoP businesses only to find themselves rejected[41]. A multi-context body of consumer information is therefore needed to assist marketers in their strategy. To date, there are very few books, and relatively few journal articles addressing BoP consumer behaviour when compared to other segments. This gap is further highlighted by the fact that there are more global BoP consumers than other income groups. In this section, the contribution of this study to marketing practitioner effectiveness is discussed.

6.6.1 More informed consumer-needs driven BoP marketers

Since marketers are often disconnected from low-income consumers' lives (Section 2.12.3), there is a strong possibility of having a compromised understanding of BoP loyalty. In response to the marketers propensity to view target market behaviour through the lens of self,[42] there exists a gap in knowledge with regards to understanding the purchasing behaviour of BoP consumers which will facilitate a solid foundation for the development of an effective marketing strategy (Simpson & Lappeman, 2017).

One contribution generated from this research, is a better understanding of sales inconsistency. When a business experiences spikes or troughs in sales, conclusions may be quickly drawn (either optimistically or pessimistically). The findings of this study show that apparent shifts in sales may have more to do with consumers' temporary re-allocation of expenditure to another category than with defection. This phenomenon may be observable, for example, to micro-entrepreneurs or large retailers.

In addition to understanding that expenditure shifts are not always an act of brand switching, marketers may use the findings of this study to understand BoP consumers' lives better. In particular, the challenges of resource constraints directly impact choice, and the role of situational variables (discussed in Section 6.2) has potential to create unwelcome expenditures (for example funeral contributions). The fact that BoP income sources and amounts can vary significantly on a monthly basis (see Section 5.5) means that budgeting and planning is often seen as a luxury. Marketers who are

[41] Among the many examples are Kellogg's in India, Fosters in Vietnam, Woolworths in Nigeria (BrandFailures 2016)
[42] Referred to the "People like us" mentality by Simpson and Lappeman (2017)

able to appreciate the needs of consumers will better connect with them on a short-term basis, and will design better long-term strategy.

Developing the BoP market is also seen as a way to create millions of new entrepreneurs at the grass root level, from local residents working as distributors to village-level micro-enterprises (Prahalad & Hart, 2004; Naidoo, 2009). The goal of the BoP concept was restated by Midha, Jain and Mathur (2012) who claimed that business models need to be designed that provide for both the needs of poor consumers as well as the profitability of companies.

6.6.2 Proposing a metric for category share of spending

There is an apparent need for a way to measure category share of expenditure (or spending) as category trade-off was observed to play such a significant role in BoP consumer choice. To date, no such category related metric exists.[43] With data on how category share of spending (CaSoS) fluctuates (per household / metropolitan area), marketers will have a better understanding of what kind of category share they can expect at given times (for example, the entertainment industry knows that expenditure may rise in the festive season, but there is no measurement exactly what category loses share in that period). By understanding CaSoS more clearly, marketers will also better understand their inter-category competitors (as opposed to SOCR which only tests for intra-category loyalty). At this point it must be noted how CaSoS differs from SOW. SOW (as defined in Chapter One and Chapter Three) is a measure that companies use to determine how much of an individual's total expenditure is captured by their products or services. This metric is useful for building profitability through brand extension and multi-branding strategy, but does not adequately define the share of category in a holistic manner.

A proposed means to measure CaSoS (this would need further testing), would be to track average share of expenditure of a single category over time, and then to measure an index of CaSoS relative to the mean.

[43] Main marketing metrics include: Market Share, Relative Market Share, Market Concentration, Brand Development Index (BDI), Category Development Index (CDI), Penetration, Share of Requirements, Heavy Usage Index, Awareness, Attitudes, and Usage (AAU), Customer Satisfaction, Willingness to Recommend, Willingness to Search (Farris et al, 2010).

$$\text{CaSoS} = \frac{\text{Monthly share of expenditure}}{\text{Average share of expenditure}}$$

Table 6.2 and Table 6.3 illustrates this proposal:

Category	November	December	January	February	March	Average
Eating out (% of total expenditure)	5%	10%	0%	3%	5%	4.6%
CaSoS Index	1.08	2.17	0	0.65	1.08	1

Table 6.2: Creating a CaSoS index (month/average) for Eating out (Nov-March)

Category	November	December	January	February	March	Average
Groceries (% of total expenditure)	70%	60%	85%	80%	70%	73%
CaSoS Index	0.95	0.82	1.16	1.09	0.95	1

Table 6.3: Creating a CaSoS index (month/average) for Groceries (Nov-March)

From the index values in the two tables (Table 6.2 and Table 6.3), it is clear that eating out indexes high in December, and very low in January and February. November and March remain closer to a neutral index. Conversely, the groceries category indexes higher in January and February when compared to the other months. These observations align with the qualitative findings that groceries are often traded-off for entertainment-related expenses (or clothing) during the festive season, but during the post-festive season months, expenditure is far more conservatively centered on basic needs met through groceries. The above data could help researchers better understand monthly shopping patterns, and why some consumers seem to stop using a product / brand, only to return again months later.

6.6.3 Empathy and a better connection to the definition of marketing

The role of marketing not being purely profit-driven has come a long way since Prahalad and Hart's (2004:1) BoP thesis about "eradicating poverty through profits".

The American Marketing Association's (AMA, 2016)[44] definition of marketing itself includes a responsibility to society. The most recent AMA definition of marketing (approved in 2013) is as follows:

> *"Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large."*

In a similar vein, Paul Polman, the CEO of one of the world's largest consumer goods companies (Unilever) is quoted by Gbonegun (2016:n.p.) as saying: "Why should society accept business that does not contribute to the society?" This study provides marketers with a window into the very challenging lives of many BoP households. Assistants to this research project (both fieldworkers and those that provided qualitative inter-rater reliability) often mentioned how sad they felt for many of the households that this study observed. A more empathetic marketing perspective may help companies deliver better innovations and solve many unmet needs. In the next section, avenues for future research are explored.

6.5 Recommendations for future research

The limitations of this study (chapter 1.7.2) provides a springboard for multiple future avenues of research. A larger sample of household data could yield more themes. The size of the sample (both in household number and distribution) was limited to eighty. Should the number be increased to a more nationally representative size, more themes may emerge. In addition, research into deeper rural areas may also yield some new themes.

The timing limitation of the study may also provide a new avenue of future research. This study was completed over a panel of six months in total, with each area having a maximum of four waves. A study of this nature could be reproduced by tracking household financial diaries for a year. While similar themes may emerge, the richness of the data would improve significantly.

Future BoP panel research could learn from the methodology designed and implemented in this study. The use of more fieldworkers will strengthen the data

[44] https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx

collection timing, and possibly reduce participant fatigue. Having one fieldworker per site placed large time pressure on each fieldworker. Future studies may decide to use digital means to collect data rather than paper questionairres. This methodological innovation will help accuracy and timing.

Future research should seek to test the findings of this study in both international contexts, as well as in segments with higher disposable incomes. While higher net-worth households may have more stability in income and expenditure (more fixed expenses like home loans and insurance policies) the concept of measuring expenditure category trade-off has many potential benefits for understanding consumer loyalty at all levels. The illustration in Section 6.5.1 (trade-off of rice for mobile phone airtime) could apply to a wealthy consumer deciding not to buy a bottle of wine because a hair salon appointment was more expensive than expected. While this study makes a contribution to the narrative of consumer behaviour, marketers need to keep finding better ways to explain decision-making.

The proposed model to measure CaSoS is yet to be tested for practicality, and ability to measure actual behaviour patterns. A typology of marketing strategy in this regard is sorely needed given its importance in the BoP decision-making process. In the final section, this chapter will be summarised before concluding this thesis.

6.7 Final conclusions

In conclusion, the purpose of the study was to investigate monthly BoP household expenditure fluctuation and to better understand the category expenditure trade-offs that occur. The study first quantified the monthly income and expenditure of eighty South African BoP households through a panel of financial diaries. In addition to the diaries, qualitative interviews inquired into situations that explain the trade-offs seen in the diary data.

In addition to realising the primary objective of the study, this study could contribute to the broader understanding of BoP consumer behaviour by explaining decision-making and consumer loyalty phenomena not yet described in peer-reviewed literature. Marketing practitioners operating in BoP markets may also benefit from deeper insight into BoP expenditure patterns and household decision-making.

As a mass market in excess of four billion people worldwide, many members of the global BoP still need to see the potential fruit of Prahalad and Hart's (2004) thesis that poverty could be reduced through increased attention and profit from MNCs. Although only by a small nudge, this thesis has sought to build a stronger theoretical base and better future for both consumers and business.

6.8 Chapter summary

In the final chapter, this research is concluded with a synthesis of the findings into conclusions. The chapter first addressed the research objectives, and how each one was adequately met. The chapter discussed contributions to both BoP consumer behaviour theory and to marketing practitioners.

There were six identifiable contributions to BoP consumer literature. First, the need to include category trade-off into the BoP loyalty narrative was addressed, and the concept of Category Share of Spending (CaSoS) was coined. Second, a caution was raised about the use of averages when understanding BoP household income and expenditure in light of significant monthly variations. Third, the impact of situational influences on decision-making was emphasised in light of many models excluding situation from decision-making processes. Fourth, the study's findings on reasons for expenditure category trade-off were summarised and explained as pathways to different monthly expenditure mixes. Fifth, the need to have country-specific definitions for BoP consumer characteristics was explored by combing the global BoP literature with South African BoP literature and insights. While not a direct part of the empirical process in this study, the observation is important as it impacts on the generalisability of results on other country settings. Finally, an addition to the narrative of BoP income and expenditure research was proposed. The conclusion identified the benefits of more regular intervals in longitudinal research, as well as ways to compensate for potential inconsistencies.

The contribution to marketing practitioners focused on creating a more informed, needs-driven approach to targeting BoP consumers. In addition, a metric for marketers to measure CaSoS is proposed (although yet to be tested). Finally, a call for

empathy on the part of marketing practitioner is made as the very definition of marketing now includes the need to benefit general society and not just shareholder financial value.

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Appendices

Appendix 1: Once-off Baseline Questionnaire

HOUSEHOLD NO:
Household Questionnaire

This questionnaire is to be administered to [DEFINE IDEAL RESPONDENT] and/or another household member who is knowledgeable about the living arrangements and spending patterns

A1	Household control sheet number							A2	Pcode of main respondent		

A4a	Apartment number (if any)	
A4b	Street Address (if any)	
A5	Suburb or Local Area	
A6	Town or City	
A7	Post Code	
A7a	Description of how to find and identify the dwelling	
A8	Landline telephone number (if any)	(__ __ __) __ __ __ - __ __ __ __

Interviewer Details

A13	Interviewer Name				
A14	Date of interview (dd/mm/yyyy)	__ __/__ __/__ __ __ __	A15	Interview start time	__ __:__ __

Appointments Log

	Date (dd/mm/yyyy)	Time		Outcome (drop down list)		Any new phone number/email addresses discovered	
A16.1	__ __/__ __/__ __ __ __	A16.2	__ __:__ __	A16.3		A16.4	
A17.1	__ __/__ __/__ __ __ __	A17.2	__ __:__ __	A17.3		A17.4	

Household Questionnaire

Contents

Section B: Household roster

Interviewer instruction: Ask the respondent to list the names of all the people who have been part of the household in the last 12 months for at least 15 days a year

Use first names only

- **Don't forget babies**
- **Live-in domestic workers and lodgers are separate households: a separate household questionnaire should be completed for them.**

Interviewer read out: Please list all the people who have lived under this "roof" or within the same compound/homestead/stand **at least 15 days** during the last 12 months OR arrived here in the last 15 days and this is now their usual residence **and** when you are together you share food from a common source with other household members **and** you contribute to or share in a common resource pool. Please do not forget to add babies.

Interviewer instruction: For each of the people listed on the roster ask the following questions. (Move across not down, complete each person before moving to the next person)

B1	B2	B3
	Interviewer: ▪ List names of all individuals who meet the 3 membership criteria below. ▪ First list the names of all household members ▪ List household head first ▪ Use first names only ▪ Don't forget babies Interviewer check! Live-in domestic workers and lodgers are separate households: a separate household questionnaire should be completed for them.	Does [...] usually reside here at least 4 nights a week? *Yes = 1* *No = 2* *Died = 3* *Skips:* *If **Yes**, then go to B5* *If **Died**, then skip to B9*
	Name	Use code box B3
01		
02		
03		
04		

Code box	Yes	No	No, they died
B3	1	2	3

Refusals (if applicable)

A19	What is the main reason for refusal?	Too busy	1
		Not interested/waste of time	2
		Questionnaire too personal/too intrusive	3
		Don't trust surveys	4
		Never do surveys	5
		Too old	6
		Other (Specify) _____	7
		Sickness/ Recent Death/ Recent child	8
		It took too long last time	9
A20	Degree of interaction with person refusing	None – Refused calling card	1
		Very little – they cut me short, said no thanks	2
		Some – Got to say I was doing an important survey	3
		A fair bit – got to show them the brochure, and spend a bit of time trying to talk them around	4
A21	Gender of person refusing **(Drop down list)**	Male	Female
A22	Age of person refusing		
A23	Comments regarding the refusal		

Have to finish above questions for everybody on the list, before moving to the next question. The next question is not asked of every individual but is a separate question, before leading back into the questions that are asked of each person.

	Question	Answer	Validation rules	Skips
B9	Who is the head of the household?			

The next set of questions should be asked of every person on the roster

	B10	B11	B12	B13	B14	B15.1	B15.2	B15.3	B16	B17	B18	B19	B20
	What is [...]'s relationship to [Name from B9]? [...] is [Name for B9]'s ...	What race group does [...] belong to? African = 1 Coloured = 2 Asian/Indian = 3 White = 4 Other (Specify) = 5 Refused = -8 Don't Know = -9	What is [...]'s gender? Male = 1 Female = 2 Refused = -8 Don't Know = -9	What is [...]'s date of birth?	What is [...]'s age in YEARS?	What is [...]'s preferred language?	How well can [...] read and write in English? 1) Very Well 2) Fair 3) Not well 4) Not at all -8) Refused -9) Don't know	How well does [...] speak English? 1) Very Well 2) Fair 3) Not well 4) Not at all -8) Refused -9) Don't know	What is the highest educational qualification attained by [..]?	What is [...]'s current marital status? Married = 1 Living with partner = 2 Widow/Widower = 3 Divorced or separated Never Married = 5 Refused = -8 Don't Know = -9	Is [...]'s spouse or partner listed on this roster? If Yes, please list them. No Spouse = 0 No, deceased = 77 No, absent = 44 Don't Know = -9 Refused = -8	Is [...]'s biological father listed on this roster? No, Deceased = 77 No, Absent = 44 Don't Know = -9 Refused = -8	Is [...]'s biological mother listed on this roster? No, deceased = 77 No, absent = 44 Don't Know = -9 Refused = -8
Name	Relationship Code	Race	Gender	dd/mm/yyyy	Years	Language	English	English	Education Code	Marital Status Code			pid
01													
02													
03													
04													
05													

Section D: Household living standards

D1	**Interviewer check! Rate the dwelling on the following five point scale**	
	Needs maintenance	01
	Fine	02
	Very good condition	03
D2	**Interviewer check! Indicate the type of main dwelling that the household occupies.**	
	Dwelling/house or brick structure on a separate stand or yard or on farm	01
	Traditional dwelling/hut/structure made of traditional materials	02
	Flat or apartment in a block of flats	03
	Dwelling/house/flat/room in backyard	04
	Informal dwelling/shack in backyard	05
	Informal dwelling/shack not in backyard, e.g. in an informal/ squatter settlement or on farm	06
	Room/flatlet	07
	Caravan/tent	08
	Other (specify)	09
D2.2	**Interviewer check: What type of area is this house located in?**	
	Metropolitan	
	City	
	Large town	
	Small town	
	Village	
	Informal settlement	
INTERVIEWER READ OUT: We would now like to ask you questions about your dwelling, your access to services and your households' income in the last month.		
D3	What is the total number of rooms that the household occupies in all structures in this dwelling? Please note this excludes bathrooms and toilets.	

D4	What is the main material used for the roof and the walls of the main dwelling? **Interviewer: Select from drop down list**		
	Type of material	**D4.1** Roof	**D4.2** Walls
	Bricks	01	01
	Cement block/concrete	02	02
	Corrugated iron/zinc	03	03
	Wood	04	04
	Plastic	05	05
	Cardboard	06	06
	Mixture of mud and cement	07	07
	Wattle and daub	08	08
	Tile	09	09
	Mud bricks	10	10
	Thatching	11	11
	Asbestos/cement roof sheeting	12	12
	Stone and rock	13	13
	Refuse	-8	-8
	Don't Know	-9	-9

D4.3	What is the main material used for the floor of the main dwelling? **Interviewer: Select from drop down list**	
	Type of material	**D4.3** Floor
	Mud/Earth	01
	Concrete	02
	Carpet	03
	Tiles	04
	Wood	05
	Linoleum/Vinyl	06
	Refuse	-8
	Don't Know	-9

	B21.1	B21.2	B22.1	B22.2	B24	B23	B25	B26	B27	B28	B31
What sources of income does [...] have?	Social welfare grants (including old age pension) If No, skip to B22.1	If yes, what type of grant is it? Child support, Disability, Old Age Pension, Other?	Salaries and wages If No, Skip to B23	When during the month does ..... receive his/her salary/wage? 1st week, 2nd Week, 3rd week, last week, weekly, no particular date	Rent Income	Net profit from self-employment or farming	Regular allowances received from non-household Members (Remittances)	Other, specify			
Name	Yes/No		Yes/No		Yes/No	Yes/No	Yes/No				
01											
02											
03											
04											
05											

				Skips
D5	Does the household pay rent?			
	Yes		1	
	No		2	D8
	Refuse		-8	D8
	Don't know		-9	D8
D6	What is the amount paid for rent each month?			
	Amount		R	D8
	Refuse		-8	D8
	Don't know		-9	D8
D8	Does a household member own this dwelling?			
	Yes		1	
	No		2	D13
	Refuse		-8	D13
	Don't Know		-9	D13
D9	Who in this household owns the dwelling?		Name	
	Person #1			
	Person #2			
	Person #3			
	Refuse		-8	
	Don't Know		-9	
D10	How would you rate the quality of TV signal per channel in your area: (1) Strong (2) Average (3) Not good			
	SABC 1	SABC 2	SABC 3	ETV

			Skips
D19	What is this household's main source of water?		
	Piped (tap) water in dwelling	01	D21
	Piped (tap) water on site or in yard	02	D21
	Public tap	03	
	Water-Carrier/tanker	04	
	Borehole on site	05	D21
	Borehole off site/communal	06	
	Rain-water tank on site	07	D21
	Flowing water/stream	08	
	Dam/pool/stagnant water	09	
	Well	10	
	Spring	11	
	Other (specify)	12	
	Refuse	-8	D21
	Don't Know	-9	D21
D20	How far is the water source from the dwelling? **Interviewer: Read out options.**		
	Less than 100 m	01	
	More than 100 m - less than 200 m	02	
	More than 200 m - less than 500 m	03	
	More than 500 m - less than 1 km	04	
	1 km or more	05	
	Refuse	-8	
	Don't know	-9	
D21	What type of toilet facility is available for this household?		
	Flush toilet with onsite disposal (septic tank / soak-away)	1	
	Flush toilet with offsite disposal	2	
	Chemical toilet	3	
	Pit latrine with ventilation pipe (VIP)	4	
	Pit latrine without ventilation pipe	5	
	Bucket toilet	6	
	None	7	D23
	Other (specify)	9	
	Refuse	-8	D23
	Don't know	-9	D23

				Skips
D22	Is the toilet facility shared with other households?			
	Yes		1	
	No		2	
	Refuse		-8	
	Don't know		-9	
D23	Does this household have electricity even if currently disconnected?			
	Yes		1	
	No		2	
	Refuse		-8	
	Don't Know		-9	
D24	What is the main source of energy/fuel for this household?			
		D24.1 Cooking	**D24.2 Heating**	**D24.3 Lighting**
	Electricity from mains	01	01	01
	Electricity from generator	02	02	02
	Gas	03	03	03
	Paraffin	04	04	04
	Wood	05	05	
	Coal	06	06	
	Candles			07
	Animal Dung	08	08	
	Solar Energy	09	09	09
	Other (specify)	10	10	10
	None	11	11	11
	Refuse	-8	-8	-8
	Don't Know	-9	-9	-9

D30	How much money did this household spend on all its expenses in the last 2 weeks?	
	Amount	R
	Refuse	-8
	Don't know	-9
D31	How frequently do you do grocery/food shopping?	
	More than once a week	1
	Once a week	2
	Every two weeks	3
	Once a month	4
	Refuse	-8
	Don't know	-9
D32	What was the total food expenditure of this household in the last 2 weeks?	
	Amount	
	Refuse	
	Don't know	

Section E: Expenditures

INTERVIEWER READ OUT: Now we would like to ask questions about some specific household items on which the household may have spent money in the **LAST 2 weeks** and how much was spent on these items. It should **not** include items that has been bought for resale or exchanged for commercial purposes.

Interviewer:

- **Read out each item.**
- **For E2.1 to E2.2, write '-8' for Refuse or '-9' for Don't know.**

Code		E2.1 Did anybody in the household spend money on [...] in the last two weeks? If No, skip to next item.		E2.2 How much was spent on [...] in the last two weeks?	E2.3 How many different people bought [...] in the last two weeks?	E2.4 Who spent the most?
		Yes	No	Rands	Number	Name
01	Groceries	1	2			
02	Transport	1	2			
03	Cell phone	1	2			
04	Schooling	1	2			
05	Clothing	1	2			
06	Water	1	2			
07	Electricity	1	2			
08	Stokvel	1	2			
09	Funeral Policy	1	2			
10	Burial Society	1	2			
11	Entertainment (incl. alcohol, cigarettes, sport, etc)	1	2			
12	Rent	1	2			
13	Health Care	1	2			
14	Cleaning materials	1	2			
15	Cosmetics/Toiletries/Body Care	1	2			
16	Other (Specify)	1	2			

Section F1: Durable goods

INTERVIEWER READ OUT: Now we would like to ask you questions about household items which the household may or may not own.

Type of Good	F1 Does the household own at least one [..] ? If no, skip to next item				F2 How old is this item? Less than 2 years, 2 to 5 years or older than 5 years. If more than one item how old is the newest item?				
	Yes	No	Refuse	Don't Know	Less than 2 years	2 to 5 years	Older than 5 years	Refused	Don't know
01 - Radio	1	2	-8	-9	1	2	3	-8	-9
02 - Hi-Fi stereo , CD player, MP3 player	1	2	-8	-9	1	2	3	-8	-9
03 - Television	1	2	-8	-9	1	2	3	-8	-9
04 - Satellite dish	1	2	-8	-9	1	2	3	-8	-9
05 - Video cassette recorder, DVD player	1	2	-8	-9	1	2	3	-8	-9
06 - Computer	1	2	-8	-9	1	2	3	-8	-9
07 – Landline telephone	1	2	-8	-9	1	2	3	-8	-9
08 - Cell phone	1	2	-8	-9	1	2	3	-8	-9
09 - Electric stove	1	2	-8	-9	1	2	3	-8	-9
10 - Microwave	1	2	-8	-9	1	2	3	-8	-9
11 - Fridge/freezer	1	2	-8	-9	1	2	3	-8	-9
12 – Deep freezer	1	2	-8	-9	1	2	3	-8	-9
13 - Washing machine	1	2	-8	-9	1	2	3	-8	-9
14 – Tumble Dryer	1	2	-8	-9	1	2	3	-8	-9
15 - Dishwasher	1	2	-8	-9	1	2	3	-8	-9
16 – Vacuum cleaner/floor polisher	1	2	-8	-9	1	2	3	-8	-9
17- Motor vehicle in household	1	2	-8	-9	1	2	3	-8	-9
18 – Hot running water	1	2	-8	-9	1	2	3	-8	-9
19 – Built-in kitchen sink	1	2	-8	-9	1	2	3	-8	-9
20 - Sewing/knitting machine	1	2	-8	-9	1	2	3	-8	-9
21 – Home security system	1	2	-8	-9	1	2	3	-8	-9

Section G: Financial Assets and Debts

INTERVIEWER READ OUT: Now we would like to ask about certain financial assets or debt you or somebody in your household may have.

		1 Does anybody in your household currently have [...]? **If no, skip to next item**				2 **Who is the service provider?** **List of financial institutions?**
		Yes	No	Refused	Don't Know	
G01	Personal loan from a bank	1	2	-8	-9	
G02	Personal loan from a micro-lender	1	2	-8	-9	
G03	Loan with a Mashonisa	1	2	-8	-9	
G04	Vehicle finance (car payment)	1	2	-8	-9	
G05	Credit card	1	2	-8	-9	
G06	Store card (For example, Edgars, Foschini or Woolworths store card)	1	2	-8	-9	
G07	Credit at Spaza shop	1	2	-8	-9	
G08	Hire purchase agreement	1	2	-8	-9	
G09	Loan from a family member	1	2	-8	-9	
G10	Loans from friends	1	2	-8	-9	
G11	Loans from an employer	1	2	-8	-9	
G12	Loans from a stokvel	1	2	-8	-9	
G13	Arrears in service and other monthly bills	1	2	-8	-9	
G14	Bank account	1	2	-8	-9	
G15	Funeral plan	1	2	-8	-9	
G16	Burial society membership	1	2	-8	-9	
G17	Stokvel	1	2	-8	-9	
G18	Savings Account	1	2	-8	-9	

Interviewer: Record the telephone number(s) for every person in the household in the table below and complete all the fields for each phone number.

Name	Telephone number	Type of phone	Service provider (Vodacom, MTN, Cell C, 8ta, Other)	How frequently do you buy airtime for this number?	What do they use this phone/number for most often? (Calls, sms, WhatsApp, Facebook, Searching Internet, Twitter, BBM, Taking Photos, listening to music/Radio, PCMs, etc)

Section H: Communication module

H1	What is your favourite TV show?	
H2	What is your favourite TV Chanel?	
H3	What is your favourite Radio Chanel?	
H4	What is your most visited Supermarket?	
D3	What is your most visited clothing store?	
H4	Does this household have a landline telephone in the dwelling?	
	Yes - Currently in working condition	1
	Yes - Currently not in working condition	2
	No	3
	Refuse	-8
	Don't know	-9
H5.1	Is there a cellular telephone available to this household for regular use?	
	Yes	1
	No	2
	Refuse	-8
	Don't know	-9
H5.2.1	**If yes, do you have more than one cell phone?**	
	Yes	1
	No	2
	Refuse	-8
	Don't know	-9
H5.2.2	If yes, how many?	
H5.3.1	Do you have more than one simcard?	
	Yes	1
	No	2
	Refuse	-8
	Don't know	-9
H5.3.2	If yes, how many?	
H5.4	Tell me more about your cellphone(s):	

Section Ka (prior to the evaluation): Postal Address / Landline Confirm

.*INTERVIEWER READ OUT.:* We would like to occasionally send you our thanks and updates on the progress of your contribution

Ka1	**Apartment number (if any)**	
Ka2	**Street Address (if any)**	
Ka3	**P.O. Box and branch (if any)**	
Ka4	**Suburb or Local Area**	
Ka5	**Town or City**	
Ka6	**Post Code**	

Ka7	**A landline we can contact this household on**	(___ ___ ___) ___ ___ ___ - ___ ___ ___ ___

Section J: Interviewer evaluation

To be completed by interviewer only

J1	Languages used during interview **Interviewer: Multiple mention allowed**	isiNdebele	01	
		isiXhosa	02	
		isiZulu	03	
		Sepedi	04	
		Sesotho	05	
		Setswana	06	
		Siswati	07	
		Tshivenda	08	
		Isitsonga	09	
		Afrikaans	10	
		English	11	
		Other (_____)	12	
J2	In general, how did the respondent act towards you during the interview?	Hostile	01	
		Neither hostile nor friendly	02	
		Friendly	03	
J3	How attentive was the respondent to the questions during the interview?	Not at all attentive	01	
		Somewhat attentive	02	
		Very attentive	03	
J4	Were other persons within hearing range at any time during the interview?	No other person within hearing range at any time	01	
		1+ persons within hearing range for part of the interview	02	
		1+ persons within hearing range for all of the interview	03	
J5	Did more than one person help to complete this questionnaire?	Yes	01	
		No	02	J7
J6	If so, which household members helped to complete the questionnaire? Fill in the names of those who assisted **Interviewer: If no second or third person skip to J7**	Pid 1		
		Pid 2		
		Pid 3		
J7	Are any of the following evident at this address? **Interviewer: Multiple responses allowed**	Locked gate (no intercom access)	01	
		Locked door/gate (with intercom access)	02	
		Security guard/doorman/on-site manager - gatekeeper	03	
		Security door	04	
		No trespassing sign	05	
		Beware of dog sign	06	
		Evidence of a dangerous dog (i.e. witnessing it)	07	
		No junk mail/no hawker sign	08	
		Neighbourhood watch sign	09	
		Bars on windows	10	
		None of the above	11	
J8	Any additional comments about specific questions or data quality?.....			
J9	End time of interview	____:____		

Appendix 2: Self-Complete Financial Diary Questionnaire

HOUSEHOLD NO							
A3	Household control sheet number						

Supplementary module: Clothing

Instructions: Over the study period we are asking that you keep all your slips. We would also like you to record every time that you buy clothing for anybody in the household. Please complete the following form. We will collect it each time we meet and give you a new form.

Date	Type of clothing bought	Who bought the clothes?	Who was it bought for?	Where was it bought?	Why did you buy this item at this shop?

Date	Type of clothing bought	Who bought the clothes?	Who was it bought for?	Where was it bought?	Why did you buy this item at this shop?

A3	Household control sheet number						

Supplementary module: Eating out

Instructions: Over the study period we are asking that you keep all your slips. We would also like you to record every time that you eat out with anyone in the household
Please complete the following form. We will collect it each time we meet and give you a new form.

Date	Where did you go to eat out?	Who did you go out with?	What did you eat?	How much did it cost?	Why did you go out to eat at this restaurant?

Date	Where did you go to eat out?	Who did you go out with?	What did you eat?	How much did it cost?	Why did you go out to eat at this restaurant?

A3	Household control sheet number						

Supplementary module: Groceries

Instructions: Over the study period we are asking that you keep all your slips. We would also like you to record all your expenditure (excluding clothing) on this sheet. Especially record the items that you don't have slips for.

Please complete the following form. We will collect it each time we meet and give you a new form.

Date	Item bought	Who bought the groceries?	Cash or credit?	Amount paid	Slip/No Slip

Date	Item bought	Who bought the groceries?	Cash or credit?	Amount paid	Slip/No Slip

Date	Item bought	Who bought the groceries?	Cash or credit?	Amount paid	Slip/No Slip

A3	**Household control sheet number**						

Supplementary module: Telecommunications

Instructions: Please keep a record of **ALL** the times that you use your cellphone(s) over the next **2** days. When we meet again we will discuss this in more detail.

Date	Time	Number used	What did you do? Tick the appropriate box									
			Send/ Receive SMS	Make a call	Receive a call	Send PCM	WhatsApp /BBM	Facebook/ Twitter	Surf internet	Take photo/Listen to music	Listen to Radio	Mobile banking

Date	Time	Number used	Send/ Receive SMS	Make a call	Receive a call	Send PCM	WhatsApp /BBM	Facebook/ Twitter	Surf internet	Take photo/Listen to music	Listen to Radio	Mobile banking

Self completion diaries_v1.docx

Appendix 3: Qualitative Interview Guide

HOUSEHOLD NO							
A3	Household control sheet number						

Diary interviews

1. Tell me about the last two weeks (since I last saw you). What happened?

2. What was the biggest thing that happened in the last two weeks?

Type of event and some details around it.	How much was spent?	Where did the money come from (insurance, savings, loans, family?)

3. Did you buy any other big items in the last two weeks? Yes/No
   a. If yes, tell me more about it

What did you buy?	Where did you buy?	Why did you buy this item at this shop?

4. Has anybody in the household taken out a loan or credit in the last two weeks? Yes/No
   a. If yes, tell me more about it

What type of credit?	Who did you get credit from?	Why did you take credit from them?	What was the credit for?

5. Have you had any difficulty in paying back any existing loans?
   a. If yes, tell me more about that

What loan?	What was the loan for originally?	What is the difficulty in repaying?

Follow up interviews_v1.docx

6. What income was received in the household in the last two weeks (if possible pre-pop date last seen)

Date (if known)	Category 1) Salary 2) Grant 3) Rent income 4) Other (specify)	Amount	Who received it?

Follow up interviews_v1.docx

Appendix 4: Consent form

NYONDO FAMILY

Household Questionnaire

This questionnaire is to be administered to the oldest woman in the household and/or another household member who is knowledgeable about the living arrangements and spending patterns of the household. Participation from other household members is encouraged.

A1	Household control sheet number	2	0	1	0	2	6

Household Contact Details

A4a	Apartment number (if any)	-5
A4b	Street Address (if any)	MKHOSANA STREET
A5	Suburb or Local Area	SLOVO PARK
A6	Town or City	UMTHATHA
A7	Post Code	5099
A7a	Description of how to find and identify the dwelling	
A8	Landline telephone number (if any)	078 391 1862

Interviewer Details

A13	Interviewer Name	TIYOBILE PEYANA			
A14	Date of interview (dd/mm/yyyy)	19/12/2013	A15	Interview start time	10:55

Consent Form: Household Questionnaire

This questionnaire is to be administered to the oldest woman in the household and/or another household member who is knowledgeable about the living arrangements and spending patterns of the household. While participation from other household members is encouraged, this consent form should be signed by the *main* respondent.

This is a study about household composition, income and expenditure, and understanding how South Africans connect to the markts around them. This project is run by researchers at the University of Cape Town from the Unilever Institute.

As part of this study we will be asking you to keep certain records of your spending. Before we do that, we will be asking you to provide some background information about your household, such as who usually lives here, whether you have access to services such as water and electricity and which assets you own. We will also ask about the products you buy and the brands you prefer.

Before we begin the interview, we want to make sure you understand the following information about the study:

- Your participation is entirely voluntary. You may refuse to take part in the interview, and you may stop at any time if you do not want to continue. You also have the right to skip any particular question or questions if you do not wish to answer them.
- The time it takes to complete the interview will vary depending on how many people live in your household and whether all the sections of the questionnaire are relevant to your household, but the average amount of time for this interview is 1 hour and 20 minutes.
- You have the right to ask questions at any point before the interview, during the interview, or after the interview is completed.
- All information collected for this study will be kept strictly confidential. While the data collected will be used for research purposes, information that could identify you or your household will never be publicly ryeleased in any research report or publication.
- The intention of the study is to conduct further interviews with you in the future. As a result, your personal details will be kept on record in order that you can be re-contacted to participate in future studies that form part of this project. However, we will ask your permission to participate in the survey again each time. Agreeing to participate now does not mean you have to participate in future surveys.

Bongiwe Nyondo	Signed	19/12/2013
RESPONDENT NAME	SIGNATURE	DATE

Fieldworker and supervisor to countersign below if respondent is not able to sign:

Signed	
SIGNATURE: FIELDWORKER	SIGNATURE: SUPERVISOR

Appendix 5: Photographic sample depicting fieldwork

Appendix picture 1: The financial diaries

Appendix picture 2: Meeting the community

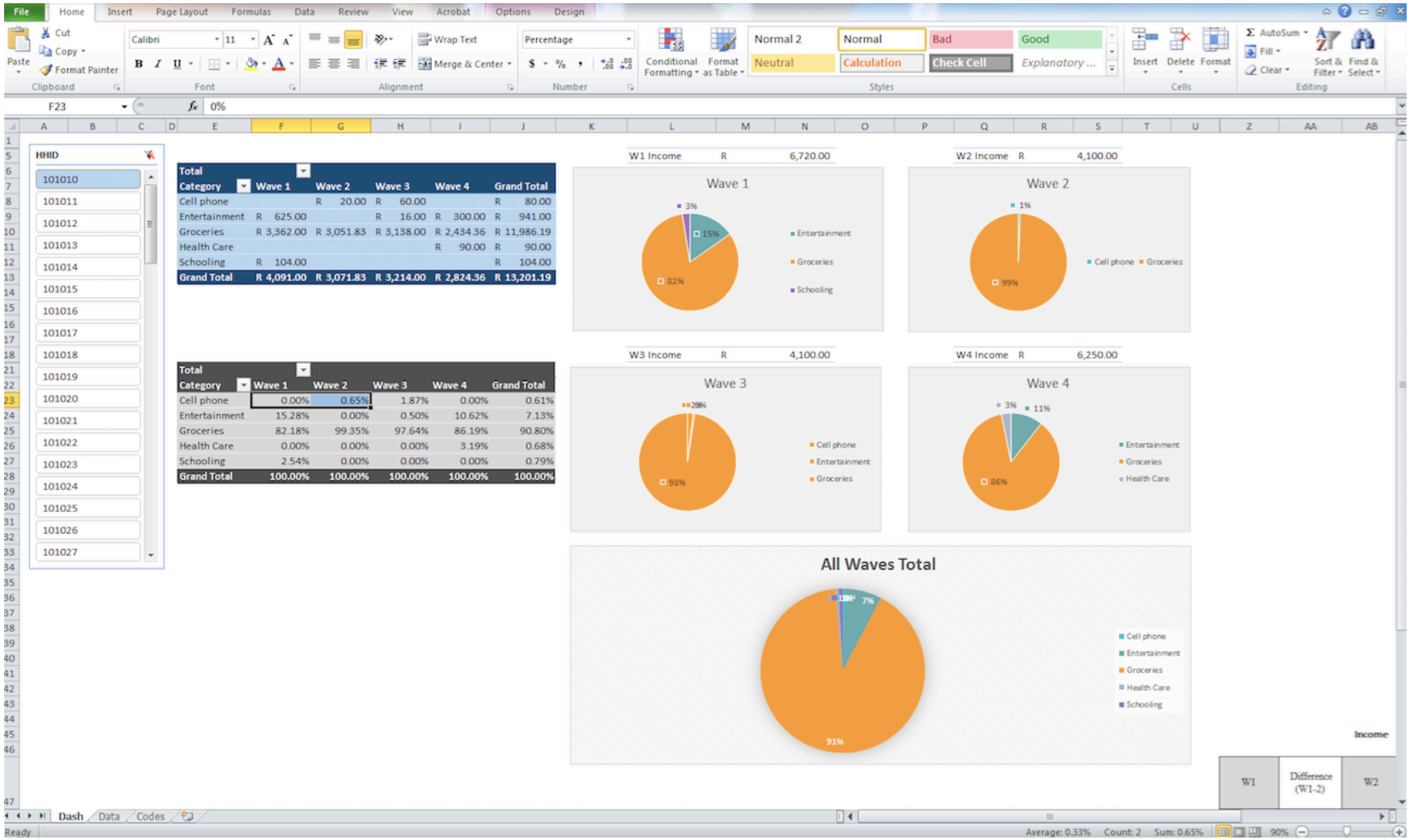
Appendix picture 3: Street scene

Appendix picture 4: Street scene

Appendix picture 5: Fieldwork in action

Appendix picture 6: Interviews

Appendix 6: Visualisation of the rendered pivot tables


HHID
101010
101011
101012
101013
101014
101015
101016
101017
101018
101019
101020
101021
101022
101023
101024
101025
101026
101027
Total
Category | Wave 1 | Wave 2 | Wave 3 | Wave 4 | Grand Total
Cell phone | | R 20.00 | R 60.00 | | R 80.00
Entertainment | R 625.00 | | R 16.00 | R 300.00 | R 941.00
Groceries | R 3,362.00 | R 3,051.83 | R 3,138.00 | R 2,434.36 | R 11,986.19
Health Care | | | | R 90.00 | R 90.00
Schooling | R 104.00 | | | | R 104.00
Grand Total | R 4,091.00 | R 3,071.83 | R 3,214.00 | R 2,824.36 | R 13,201.19
Total
Category | Wave 1 | Wave 2 | Wave 3 | Wave 4 | Grand Total
Cell phone | 0.00% | 0.65% | 1.87% | 0.00% | 0.61%
Entertainment | 15.28% | 0.00% | 0.50% | 10.62% | 7.13%
Groceries | 82.18% | 99.35% | 97.64% | 86.19% | 90.80%
Health Care | 0.00% | 0.00% | 0.00% | 3.19% | 0.68%
Schooling | 2.54% | 0.00% | 0.00% | 0.00% | 0.79%
Grand Total | 100.00% | 100.00% | 100.00% | 100.00% | 100.00%
W1 Income R 6,720.00
Wave 1
3%
15%
82%
Entertainment
Groceries
Schooling
W2 Income R 4,100.00
Wave 2
1%
99%
Cell phone
Groceries
W3 Income R 4,100.00
Wave 3
2%
98%
Cell phone
Entertainment
Groceries
W4 Income R 6,250.00
Wave 4
3%
11%
86%
Entertainment
Groceries
Health Care
All Waves Total
7%
91%
Cell phone
Entertainment
Groceries
Health Care
Schooling
Income
W1
Difference (W1-2)
W2
Dash
Data
Codes
Ready
Average: 0.33%
Count: 2
Sum: 0.65%
90%

Appendix 7: Household Identification Index & demographic summary

HHID	FamilyName	Address (if given)	Suburb	Metro
101010	MA[redacted]GA	[redacted]NUE	Alexandra	JHB
101011	Z[redacted]U	[redacted]R 11 AND ROOTH	Alexandra	JHB
101012	SI[redacted]A	42 [redacted]NUE	Alexandra	JHB
101013	D[redacted]LO	755 - [redacted]VENUE	Alexandra	JHB
101014	D[redacted]E	EA[redacted]ON	Alexandra	JHB
101015	JE[redacted]E	12[redacted]TREET	Alexandra	JHB
101016	MO[redacted]IO	7T[redacted]YER	Alexandra	JHB
101017	JE[redacted]N	RIV[redacted]E 1	Alexandra	JHB
101018	MO[redacted]O	4T[redacted]I	Alexandra	JHB
101019	MA[redacted]E	6T[redacted]E	Alexandra	JHB
101020	TI[redacted]I	A[redacted]TEL	Alexandra	JHB
101021	SH[redacted]U	6T[redacted]UE	Alexandra	JHB
101022	G[redacted]E	7T[redacted]UE	Alexandra	JHB
101023	KU[redacted]	69[redacted]RNE	Alexandra	JHB
101024	MO[redacted]E	18[redacted]E	Alexandra	JHB
101025	M[redacted]O	P[redacted]UE	Alexandra	JHB
101026	M[redacted]A	S[redacted]NI	Alexandra	JHB
101027	SU[redacted]	16[redacted]E	Alexandra	JHB
101028	MA[redacted]A	7T[redacted]ND	Alexandra	JHB
101029	M[redacted]I	SE[redacted]TI	Alexandra	JHB
201010	MD[redacted]A	MV[redacted]ET	Mandela park	MTH
201011	NO[redacted]3	38 M[redacted]EET	Ngangelizwe	MTH
201012	N[redacted]A	GX[redacted] A/A	Umthatha	MTH
201013	N[redacted]A	VE[redacted]LU	Umthatha	MTH
201014	SE[redacted]E	ZI[redacted]/A	Gxulu	MTH
201015	K[redacted]A	[redacted]/A	Gxulu	MTH
201016	M[redacted]E	M[redacted]T	Zithathele a/a gxulu	MTH
201017	R[redacted]A	2[redacted]EET	Ngangelizwe	MTH
201018	Z[redacted]	ZIT[redacted]LE	Gxulu	MTH
201019	[redacted]NA	LA[redacted]EET	Ngangelizwe	MTH
201020	MD[redacted]I	PA[redacted]T	Mandela park	MTH
201021	MA[redacted]I	MA[redacted]D	Gxulu zithathele a/a	MTH
201022	N[redacted]O	ST[redacted]ET	Ngamgelizwe	MTH
201023	M[redacted]NGU	P[redacted]T	Mandela park	MTH
201024	R[redacted]	N[redacted]TION	Corhana	MTH
201025	M[redacted]I	PA[redacted]ET	Mandela park	MTH
201026	L[redacted]A	27[redacted]ET	Ngange lizwe	MTH
201027	W[redacted]A	NC[redacted]I	Corhana zithathale a/a	MTH
201028	N[redacted]O	M[redacted]EET	Slovo park	MTH
201029	M[redacted]NI	Z[redacted]/A	Gxulu	MTH
521010	CE[redacted]	M[redacted]	Inzingolweni	PS
521011	M[redacted]	MB[redacted]	Izingolweni	PS
521012	[redacted]LE	[redacted]	Izingolweni	PS

521013	M[redacted]E	[redacted]	Izingolweni	PS
521014	L[redacted]E	[redacted]	Izingolweni	PS
521015	H[redacted]O	[redacted]	Izingolweni	PS
521016	C[redacted]	[redacted]	Izingolweni	PS
521017	C[redacted]	[redacted]	Izigolweni	PS
521018	[redacted]LE	[redacted]	Izingolweni	PS
521019	[redacted]SHE	[redacted]	Izingolweni	PS
521020	QU[redacted]	[redacted]	Izingolweni	PS
521021	[redacted]	[redacted]	Izingolweni	PS
521022	XO[redacted]	[redacted]	Izingolweni	PS
521023	NG[redacted]	[redacted]	Izingolweni	PS
521024	[redacted]	[redacted]	Izingolweni	PS
521025	[redacted]NDE	[redacted]	Izingolweni	PS
521026	N[redacted]O	[redacted]	Izingolweni	PS
521027	B[redacted]	[redacted]	Izingolweni	PS
521028	NK[redacted]I	[redacted]	Izingolweni	PS
521029	CE[redacted]	[redacted]	Izingolweni	PS
601010	RA[redacted]	[redacted]	Mohading	POT
601011	NT[redacted]A	10[redacted]G	Mottading	POT
601012	NG[redacted]	48[redacted]EET	Ikageng	POT
601013	M[redacted]E	48[redacted]T	Ikageng	POT
601014	Q[redacted]ASE	438[redacted]EET	Ikageng	POT
601015	M[redacted]	47[redacted]T	Ikageng	POT
601016	M[redacted]E	4[redacted]T	Ikageng	POT
601017	LE[redacted]	4[redacted]T	Ikageng	POT
601018	MA[redacted]	4[redacted]ET	Ikageng	POT
601019	DI[redacted]	4[redacted]ET	Ikageng	POT
601020	R[redacted]KE	4[redacted]REET	Ikageng	POT
601021	M[redacted]	10[redacted]NG	Mohading	POT
601022	K[redacted]A	4[redacted]ET	Ikageng	POT
601023	PI[redacted]N	4[redacted]ET	Ikageng	POT
601024	M[redacted]	10/1[redacted]	Mohading	POT
601025	PE[redacted]	10[redacted]ET	Moltading	POT
601026	B[redacted]E	10[redacted]ET	Mottading	POT
601027	P[redacted]		Mohading	POT
601028	M[redacted]		Ikageng	POT
601029	R[redacted]E		Mohading	POT

Household (HH) Identifier	Total residents	Number of male residents	Number of female residents	Number of adults 15years or older	Number of kids 14years or younger	Gender of HH head	Age of HH head
101010	5	4	1	3	2	Male	41
101011	3	1	2	2	1	Female	59
101012	4	2	2	4	0	Female	54

101013	4	2	2	2	2	Male	32
101014	4	0	4	3	1	Female	46
101016	6	2	4	3	3	Female	46
101017	4	2	2	2	2	Female	40
101018	6	3	3	4	2	Male	49
101019	4	2	2	3	1	Female	55
101020	3	1	2	1	2	Female	41
101021	5	4	1	5	0	Male	64
101022	11	4	7	5	6	Male	49
101023	4	2	2	3	1	Male	48
101024	3	2	1	3	0	Male	71
101025	4	0	4	3	1	Female	71
101026	8	5	3	5	3	Male	51
101027	3	1	2	3	0	Female	32
101028	3	1	2	3	0	Male	43
101029	3	1	2	2	1	Male	29
201010	5	3	2	5	0	Female	51
201011	6	1	5	4	2	Male	50
201012	10	4	6	9	1	Male	64
201013	2	0	2	2	0	Female	35
201014	10	3	7	7	3	Female	58
201015	5	0	5	3	2	Female	44
201016	5	3	2	3	2	Female	52
201017	3	0	3	1	2	Female	33
201018	5	3	2	5	0	Female	59
201019	6	0	6	3	3	Female	53
201020	8	2	6	5	3	Female	54
201021	6	2	4	2	4	Female	57
201022	2	1	1	2	0	Male	76
201023	16	9	7	6	10	Female	62
201024	5	3	2	3	2	Female	29
201025	5	1	4	4	1	Female	80
201026	6	0	6	3	3	Female	50
201027	9	5	4	9	0	Male	56
201028	4	3	1	4	0	Male	79
201029	6	2	4	2	4	Male	30
521010	3	1	2	1	2	Female	39
521011	4	3	1	2	2	Male	35
521012	6	2	4	4	2	Female	55
521013	7	3	4	3	4	Female	44
521014	4	2	2	2	2	Female	40
521015	6	0	6	3	3	Female	51
521016	8	5	3	4	4	Male	55
521017	3	1	2	1	2	Female	41
521018	4	2	2	3	1	Male	71
521019	5	2	3	3	2	Female	61
521020	5	2	3	3	2	Male	56
521021	3	1	2	3	0	Male	62
521022	7	4	3	5	2	Female	69
521023	3	1	2	2	1	Male	30
521024	5	1	4	5	0	Female	63
521025	10	5	5	6	4	Female	40
521026	4	2	2	3	1	Male	43
521027	4	1	3	3	1	Female	50
521028	5	2	3	3	2	Female	83

521029	4	1	3	3	1	Female	43
601010	6	4	2	2	4	Female	75
601011	3	1	2	2	1	Female	75
601012	4	0	4	2	2	Female	81
601013	5	3	2	2	3	Male	32
601014	4	1	3	1	3	Female	40
601015	3	0	3	3	0	Female	55
601016	6	3	3	5	1	Male	61
601017	2	1	1	2	0	Female	51
601018	5	2	3	4	1	Male	52
601019	5	3	2	5	0	Female	50
601020	4	2	2	3	1	Female	54
601021	6	4	2	5	1	Female	59
601022	4	3	1	1	3	Female	34
601023	4	2	2	2	2	Male	42
601024	5	1	4	3	2	Female	73
601025	3	2	1	2	1	Male	70
601026	2	2	0	2	0	Male	56
601027	6	1	5	2	4	Female	46
601028	8	4	4	4	4	Female	60
601029	5	3	2	5	0	Female	50

Appendix Table : Description of sample household makeup

Appendix 8: Completed financial diaries

	December '13	January '14	February '14	March '14	April '14	May '14
101010	1	1	1	1		
101011	1	1		1		
101012	1	1		1		
101013	1	1		1		
101014	1	1		1		
101015	1	1		1		
101016	1	1		1		
101017	1	1		1		
101018	1	1		1		
101019	1	1		1		
101020	1	1		1		
101021	1	1		1		
101022	1	1	1	1		
101023	1	1		1		
101024	1	1		1		
101025	1	1		1		
101026	1	1		1		
101027	1	1		1		
101028	1	1		1		
101029	1			1		
201010	1	1	1	1		
201011	1					
201012	1	1	1	1		
201013	1	1	1	1		
201014	1			1		
201015	1	1	1	1		
201016	1	1		1		
201017	1	1	1	1		
201018	1					
201019	1	1	1	1		
201020	1	1		1		
201021	1	1	1	1		
201022	1	1				
201023	1	1	1	1		
201024	1	1	1	1		
201025		1	1			
201026	1	1	1			
201027	1			1		
201028	1	1	1	1		
201029	1	1				
521010			1		1	1
521011			1		1	1
521012			1		1	1
521013			1		1	1

521014			1		1	1
521015			1		1	
521016			1		1	1
521017			1		1	1
521018			1		1	
521019			1		1	1
521020			1		1	1
521021			1		1	1
521022			1		1	1
521023			1		1	1
521024			1		1	1
521025			1			1
521026			1		1	1
521027			1		1	1
521028			1		1	
521029			1		1	1
601010		1		1		
601011		1		1		
601012		1				
601013		1				
601014		1		1		
601015		1				
601016		1		1		
601017		1		1		
601018		1				
601019		1				
601020		1		1		
601021		1		1		
601022				1		
601023		1		1		
601024		1		1		
601025		1		1		
601026		1		1		
601027		1				
601028				1		
601029		1		1		
Total	39	53	34	48	19	17

Appendix 9: Household Income tables

Income tables

	Dec '13	Jan '14	Feb '14	Mar '14	Apr '14	May '14	Total HH income captured	Captured waves (n)	Average (mean)
101010	6720	4100	4100	6250			21170	4	5292,50
101011	600	250		600			1450	3	483,33
101012	1500	3380		3535			8415	3	2805,00
101013	2500	3000		5600			11100	3	3700,00
101014	1500	390		1600			3490	3	1163,33
101015	18080	7100		4000			29180	3	9726,67
101016	5100	8200		5750			19050	3	6350,00
101017		1050		4275			5325	2	2662,50
101018	2700	4200		4280			11180	3	3726,67
101019	6100	2700		6202			15002	3	5000,67
101020	600	1420		1240			3260	3	1086,67
101021	5080	2800		7620			15500	3	5166,67
101022	23568	4568	2835	3100			34071	4	8517,75
101023	5650	2860		2960			11470	3	3823,33
101024	1500	2000		2000			5500	3	1833,33
101025	1270	1000		2800			5070	3	1690,00
101026		8600		8800			17400	2	8700,00
101027	5300	4550		4300			14150	3	4716,67
101028	8918	2900		6550			18368	3	6122,67
101029	15000			7775			22775	2	11387,50
201010	9600		600	1500			11700	3	3900,00
201011							0	0	
201012			2200				2200	1	2200,00
201013	600						600	1	600,00
201014	4520			1550			6070	2	3035,00
201015	4260		1400				5660	2	2830,00
201016							0	0	
201017	7160	2580	4600	4600			18940	4	4735,00
201018	10120						10120	1	10120,00
201019	770	870	900	900			3440	4	860,00
201020							0	0	
201021	900	1400					2300	2	1150,00
201022	5040	2540					7580	2	3790,00
201023		9400		2400			11800	2	5900,00
201024		4000	3400	2600			10000	3	3333,33
201025							0	0	
201026	3000	2100	2100				7200	3	2400,00
201027	5400						5400	1	5400,00
201028	1260	2540		5480			9280	3	3093,33
201029	1800	3700					5500	2	2750,00
521010			600		600	550	1750	3	583,33
521011			2600		2100	1600	6300	3	2100,00

521012			600		2750	210	3560	3	1186,67
521013					1600	1300	2900	2	1450,00
521014			1400		1400	1850	4650	3	1550,00
521015			800		2100		2900	2	1450,00
521016					1600	1300	2900	2	1450,00
521017			300		1350	1000	2650	3	883,33
521018			2520		2520		5040	2	2520,00
521019			300		2020	2090	4410	3	1470,00
521020						3200	3200	1	3200,00
521021			1260			1260	2520	2	1260,00
521022					1300	2760	4060	2	2030,00
521023					5000		5000	1	5000,00
521024			1260		300	1260	2820	3	940,00
521025						1100	1100	1	1100,00
521026					3400	3650	7050	2	3525,00
521027			500		1300		1800	2	900,00
521028			1260		3400		4660	2	2330,00
521029					500	1300	1800	2	900,00
601010		3760		3460			7220	2	3610,00
601011		2210		2820			5030	2	2515,00
601012		1860					1860	1	1860,00
601013		2200					2200	1	2200,00
601014		900					900	1	900,00
601015							0	0	
601016							0	0	
601017		800		1200			2000	2	1000,00
601018							0	0	
601019		2526					2526	1	2526,00
601020		1100		1300			2400	2	1200,00
601021				780			780	1	780,00
601022				3100			3100	1	3100,00
601023		1200		2360			3560	2	1780,00
601024		3874		3360			7234	2	3617,00
601025		2520					2520	1	2520,00
601026				4300			4300	1	4300,00
601027		2100					2100	1	2100,00
601028				1260			1260	1	1260,00
601029		3100		3200			6300	2	3150,00
Number of data points	31	41	21	38	17	15		163	
Total	166147	122389	35556	135445	33257	24445	517239		
Average	5359,58	2985,10	1693,14	3564,34	1956,29	1629,67			

Appendix 10: Household Expenditure Data Tables

Appendix Table 10.1: Grocery expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010	82,18%	99,35%	97,64%	86,19%			90,8%
101011	64,08%	97,33%		27,21%			52,9%
101012	22,54%	97,97%		99,58%			72,1%
101013	92,12%	86,62%		80,58%			84,8%
101014	60,32%	86,34%		79,93%			81,4%
101015	42,52%	93,78%		78,94%			75,1%
101016	39,40%	35,95%		67,75%			44,6%
101017	82,80%	95,01%		83,63%			88,7%
101018	80,68%	98,59%		95,79%			96,3%
101019	31,56%	95,99%		59,15%			53,4%
101020	44,65%	85,91%		98,04%			76,2%
101021	94,95%	100,00%		98,73%			97,8%
101022	67,29%	78,97%	70,39%	91,04%			76,7%
101023	8,56%	47,53%		52,66%			29,9%
101024	20,86%	62,23%		76,17%			38,3%
101025	76,01%	93,65%		90,72%			87,9%
101026	97,81%	79,57%		77,79%			84,6%
101027	95,98%	87,77%		100,00%			95,0%
101028	61,99%	98,02%		66,81%			69,0%
101029	46,51%			68,91%			64,6%
201010	90,75%	100,00%	80,68%	97,79%			91,5%
201011	100,00%						100,0%
201012	100,00%	100,00%	100,00%	97,53%			99,5%
201013	91,61%	100,00%	100,00%	100,00%			97,4%
201014	98,92%			98,08%			98,6%
201015	100,00%	96,84%	97,04%	100,00%			97,9%
201016	90,33%	100,00%		100,00%			95,5%
201017	80,06%	68,56%	90,98%	66,34%			77,0%
201018	93,65%						93,7%
201019	92,83%	100,00%	83,29%	77,25%			87,3%
201020	78,06%	86,75%		92,34%			84,1%
201021	100,00%	99,82%	99,05%	98,58%			99,2%
201022	100,00%	98,15%					99,7%
201023	73,24%	89,05%	100,00%	100,00%			87,1%
201024	70,59%	97,78%	98,89%	82,84%			86,1%
201025		43,04%	98,38%				45,7%
201026	78,58%	97,26%	98,14%				90,0%
201027	100,00%			100,00%			100,0%
201028	89,86%	96,81%	96,83%	88,02%			93,9%

201029	89,20%	90,72%					89,9%
521010			60,00%		56,53%	83,12%	76,2%
521011			100,00%		75,98%	92,82%	87,9%
521012			60,66%		98,06%	85,43%	79,9%
521013			90,71%		94,84%	89,30%	92,1%
521014			92,83%		93,83%	83,61%	90,9%
521015			91,48%		82,81%		83,8%
521016			98,07%		87,79%	100,00%	93,9%
521017			91,23%		86,17%	98,35%	92,5%
521018			72,80%		95,51%		86,3%
521019			100,00%		93,30%	95,40%	94,6%
521020			85,44%		96,14%	94,73%	92,3%
521021			85,69%		89,75%	95,13%	90,4%
521022			95,12%		96,67%	97,26%	96,8%
521023			95,31%		100,00%	91,73%	96,6%
521024			72,27%		100,00%	81,94%	83,1%
521025			94,66%			92,66%	93,7%
521026			62,00%		91,61%	92,82%	90,5%
521027			76,60%		89,33%	96,01%	88,9%
521028			95,82%		85,97%		88,7%
521029			90,47%		88,07%	97,71%	92,5%
601010		76,43%		80,70%			77,9%
601011		86,62%		77,83%			82,2%
601012		83,21%					83,2%
601013		96,35%					96,3%
601014		97,90%		52,38%			81,0%
601015		90,72%					90,7%
601016		91,74%		100,00%			95,1%
601017		93,91%		100,00%			96,1%
601018		71,85%					71,9%
601019		49,78%					49,8%
601020		96,96%		100,00%			98,1%
601021		93,81%		69,95%			86,1%
601022				82,93%			82,9%
601023		95,34%		100,00%			95,8%
601024		100,00%		100,00%			100,0%
601025		100,00%		100,00%			100,0%
601026		96,59%		85,68%			92,2%
601027		100,00%					100,0%
601028				86,12%			86,1%
601029		100,00%		63,35%			86,4%
Sample (n)	**39**	**53**	**34**	**48**	**19**	**17**	**80**
Average							**80,14%**

Appendix Table 10.2: Mobile phone expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010	0,00%	0,65%	1,87%	0,00%[45]			0,6%
101011	13,11%	2,67%		1,46%			6,1%
101012	0,00%	2,03%		0,42%			0,7%
101013	0,00%	7,08%		0,00%			2,8%
101014	0,00%	12,27%		7,66%			9,4%
101015	0,00%	6,22%		0,00%			2,1%
101016	26,58%	33,78%		13,03%			26,8%
101017	0,00%	4,34%		5,73%			4,1%
101018							
101019	2,92%	1,00%		1,36%			2,1%
101020							
101021							
101022	0,00%	2,81%	20,72%	0,00%			9,4%
101023	13,42%	6,39%		4,20%			9,4%
101024	9,33%	26,87%		4,03%			13,7%
101025							
101026	1,64%	0,00%		15,90%			4,5%
101027	2,10%	12,23%		0,00%			4,4%
101028	3,55%	0,00%		5,45%			4,2%
101029	0,00%			8,41%			6,8%
201010	0,00%	0,00%	2,57%	0,00%			0,4%
201011							
201012							
201013							
201014							
201015	0,00%	0,72%	0,00%	0,00%			0,3%
201016							
201017	0,00%	1,98%	0,00%	0,00%			0,3%
201018							
201019							
201020	0,00%	2,34%		3,11%			1,4%
201021							
201022							
201023	1,34%	0,00%	0,00%	0,00%			0,5%
201024	0,79%	0,00%	0,00%	0,00%			0,2%
201025		0,46%	0,00%				0,4%
201026	0,68%	0,00%	0,00%				0,3%

[45] 0.00% is recorded in households where the category was part of expenditure for at least one of the waves. In households that did not use a specific category in any wave, no value is defined.

201027							
201028	0,54%	0,00%	0,00%	0,00%			0,1%
201029							
521010			0,00%		15,52%	1,92%	4,5%
521011			0,00%		0,00%	1,91%	0,8%
521012							
521013			0,00%		0,00%	3,10%	1,0%
521014			0,00%		3,38%	8,53%	3,6%
521015			0,00%		0,50%		0,4%
521016			1,93%		0,00%	0,00%	0,4%
521017			0,00%		7,39%	0,00%	2,8%
521018			0,00%		2,90%		1,7%
521019							
521020			0,00%		0,00%	1,74%	0,7%
521021			11,84%		9,27%	4,87%	8,5%
521022			0,00%		0,00%	1,87%	1,2%
521023							
521024			3,02%		0,00%	0,00%	1,6%
521025			2,00%			1,67%	1,8%
521026			0,00%		0,00%	2,52%	1,1%
521027			8,07%		0,82%	0,00%	2,0%
521028			4,18%		0,00%		1,1%
521029			2,51%		1,19%	2,29%	1,9%
601010							
601011		0,00%		2,52%			1,3%
601012							
601013							
601014		2,10%		0,00%			1,3%
601015							
601016							
601017							
601018		9,26%					9,3%
601019							
601020							
601021		0,93%		0,00%			0,6%
601022							
601023							
601024							
601025							
601026		0,00%		5,12%			2,0%
601027							
601028							
601029							
Sample (n)	**24**	**29**	**27**	**27**	**16**	**14**	**47**

Average **3,06%**

Appendix Table 10.3: Entertainment expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010	15,28%	0,00%	0,50%	10,62%			7,1%
101011	0,00%	0,00%		38,87%			17,5%
101012							
101013							
101014	0,00%	1,39%		0,00%			0,8%
101015							
101016	3,87%	0,00%		0,00%			1,1%
101017							
101018							
101019	0,00%	3,01%		0,00%			0,8%
101020							
101021	5,05%	0,00%		0,00%			1,6%
101022							
101023							
101024							
101025							
101026							
101027							
101028	13,18%	0,00%		0,00%			4,1%
101029							
201010							
201011							
201012							
201013							
201014							
201015							
201016							
201017	4,69%	18,11%	0,00%	0,00%			6,1%
201018							
201019							
201020							
201021							
201022							
201023							
201024	0,00%	0,00%	1,11%	0,00%			0,2%
201025							
201026							
201027							
201028							
201029							
521010							

521011							
521012							
521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021							
521022							
521023							
521024							
521025			0,00%			0,52%	0,3%
521026							
521027							
521028							
521029							
601010							
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample (n)	**9**	**9**	**4**	**9**	**0**	**1**	**10**
Average							**1,3%**

Appendix Table 10.4: Health care expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010	0,00%	0,00%	0,00%	3,19%			0,7%
101011							
101012							
101013							
101014							
101015							
101016							
101017							
101018	0,00%	1,41%		0,00%			0,8%
101019	0,28%	0,00%		10,35%			2,13%
101020							
101021							
101022							
101023							
101024							
101025							
101026							
101027							
101028							
101029							
201010							
201011							
201012							
201013							
201014							
201015							
201016							
201017							
201018							
201019							
201020							
201021							
201022							
201023							
201024							
201025							
201026	4,18%	0,00%	0,00%				1,68%
201027							
201028							
201029							

521010							
521011							
521012							
521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021							
521022							
521023							
521024							
521025							
521026							
521027							
521028							
521029							
601010							
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**4**	**4**	**2**	**3**	**0**	**0**	**4**
Average							**0,13%**

Appendix Table 10.5: Schooling expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010	2,54%	0,00%	0,00%	0,00%			0,8%
101011							
101012							
101013							
101014	0,00%	0,00%		3,06%			1,0%
101015							
101016	4,36%	0,00%		0,00%			1,2%
101017	0,00%	0,66%		0,00%			0,3%
101018	19,32%	0,00%		0,00%			1,4%
101019							
101020	36,90%	2,28%		0,00%			12,5%
101021							
101022							
101023							
101024							
101025	0,00%	6,35%		0,00%			0,7%
101026							
101027							
101028	2,03%	0,00%		0,00%			0,6%
101029	0,00%			9,58%			7,7%
201010							
201011							
201012							
201013							
201014							
201015							
201016							
201017	5,40%	0,00%	6,83%	0,00%			3,9%
201018							
201019							
201020							
201021							
201022							
201023	0,00%	0,26%	0,00%	0,00%			0,07%
201024							
201025		9,93%	0,00%				9,4%
201026	7,19%	0,00%	0,00%				2,9%
201027							
201028							

201029	5,88%	0,00%					3,1%
521010							
521011							
521012			0,00%		1,94%	1,79%	1,1%
521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021			0,00%		0,98%	0,00%	0,4%
521022							
521023							
521024							
521025							
521026							
521027							
521028							
521029							
601010		23,57%		0,00%			15,4%
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**13**	**14**	**7**	**12**	**2**	**2**	**17**
Average							**1,17%**

Appendix Table 10.6: Transport expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011	0,00%	0,00%		17,88%			8,0%
101012							
101013							
101014							
101015							
101016							
101017							
101018							
101019							
101020							
101021							
101022							
101023							
101024							
101025							
101026	0,00%	1,57%		1,58%			1,09%
101027							
101028							
101029	0,00%			7,66%			6,18%
201010							
201011							
201012							
201013							
201014							
201015							
201016							
201017							
201018							
201019							
201020							
201021							
201022							
201023							
201024							
201025							
201026							
201027							
201028							
201029							

521010							
521011							
521012							
521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021							
521022							
521023							
521024							
521025							
521026							
521027							
521028							
521029							
601010							
601011							
601012		8,50%					8,50%
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**3**	**3**	**0**	**3**	**0**	**0**	**4**
Average							**0,28%**

Appendix Table 10.7: Eating out expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011	22,81%	0,00%		14,58%			15,34%
101012	0,58%	0,00%		0,00%			0,2%
101013							
101014	39,68%	0,00%		6,45%			6,32%
101015	21,93%	0,00%		0,00%			5,32%
101016	20,75%	19,96%	15,88%				19,19%
101017	10,04%	0,00%		0,00%			1,7%
101018							
101019	1,65%	0,00%		11,03%			3,01%
101020	9,23%	0,00%		0,00%			2,87%
101021							
101022	32,71%	8,09%	3,57%	2,38%			7,30%
101023	78,02%	38,14%		0,00%			52,68%
101024	69,81%	0,00%		0,00%			42,84%
101025	23,99%	0,00%		0,00%			5,02%
101026	0,00%	12,60%		0,00%			5,61%
101027							
101028	19,26%	0,00%		27,74%			21,75%
101029	44,81%			5,44%			13,07%
201010							
201011							
201012							
201013	6,99%	0,00%	0,00%	0,00%			2,13%
201014							
201015							
201016							
201017	8,29%	0,00%	0,00%	31,00%			9,35%
201018							
201019	0,00%	0,00%	0,00%	22,75%			6,42%
201020	0,00%	0,00%		0,96%			0,29%
201021							
201022							
201023							
201024	0,00%	0,00%	0,00%	14,91%			3,53%
201025							
201026							
201027							

201028							
201029							
521010							
521011							
521012							
521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021							
521022							
521023							
521024							
521025							
521026			0,00%		5,00%	0,00%	2,48%
521027							
521028			0,00%		11,59%		8,41%
521029							
601010		0,00%		8,27%			2,86%
601011		13,38%		17,67%			15,55%
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021		0,00%		24,63%			7,93%
601022							
601023		2,20%		0,00%			1,99%
601024							
601025							
601026							
601027							
601028							
601029		0,00%		27,15%			10,05%
Sample(n)	**20**	**24**	**8**	**24**	**2**	**1**	**27**
Average							**6,11%**

Appendix Table 10.8: Cleaning materials expenditure as a % of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011							
101012							
101013	7,88%	0,00%		19,42%			9,92%
101014							
101015	22,26%	0,00%		21,06%			14,26%
101016	0,00%	10,31%		3,34%			5,78%
101017	0,00%	0,00%		7,37%			2,73%
101018	0,00%	0,00%		4,21%			1,39%
101019	0,00%	0,00%		1,77%			0,34%
101020	0,00%	11,81%		1,96%			5,57%
101021	0,00%	0,00%		0,93%			0,42%
101022	0,00%	8,00%	4,83%	6,59%			5,76%
101023	0,00%	6,84%		8,12%			3,79%
101024	0,00%	10,90%		19,80%			5,15%
101025	0,00%	0,00%		9,28%			6,39%
101026	0,55%	6,26%		4,73%			4,15%
101027	1,91%	0,00%		0,00%			0,62%
101028	0,00%	1,98%		0,00%			0,24%
101029	3,70%			0,00%			0,72%
201010	0,00%	0,00%	0,00%	2,21%			0,48%
201011							
201012	0,00%	0,00%	0,00%	0,63%			0,12%
201013	1,40%	0,00%	0,00%	0,00%			0,43%
201014	1,08%			1,92%			1,37%
201015	0,00%	2,44%	2,96%	0,00%			1,82%
201016	9,67%	0,00%		0,00%			4,51%
201017	0,00%	5,88%	0,00%	2,65%			1,27%
201018	4,58%						4,58%
201019	4,14%	0,00%	2,31%	0,00%			2,08%
201020	5,37%	7,40%		1,00%			4,46%
201021	0,00%	0,18%	0,95%	1,42%			0,78%
201022	0,00%	1,85%					0,31%
201023	0,00%	1,85%	0,00%	0,00%			0,52%
201024	2,21%	1,25%	0,00%	2,25%			1,55%
201025		0,00%	1,62%				0,08%
201026	0,00%	2,74%	0,00%				0,91%
201027							
201028	0,54%	0,77%	0,47%	0,68%			0,64%

201029	4,92%	9,28%					6,93%
521010			0,00%		6,77%	0,93%	2,03%
521011			0,00%		1,39%	1,36%	1,10%
521012			9,16%		0,00%	7,94%	6,21%
521013			8,57%		3,47%	6,36%	5,62%
521014			0,00%		2,79%	7,86%	3,15%
521015			8,52%		9,68%		9,55%
521016			0,00%		10,32%	0,00%	4,84%
521017			8,77%		6,44%	1,65%	4,66%
521018			3,05%		1,59%		2,18%
521019			0,00%		5,18%	4,60%	4,62%
521020			1,42%		3,86%	0,00%	1,63%
521021			2,47%		0,00%	0,00%	0,66%
521022			0,00%		3,33%	0,00%	0,66%
521023			0,00%		0,00%	8,27%	0,93%
521024			10,34%		0,00%	2,64%	5,71%
521025			0,00%			5,16%	2,54%
521026			0,00%		3,39%	0,00%	1,68%
521027			7,26%		0,00%	3,99%	2,69%
521028			0,00%		2,44%		1,77%
521029			7,02%		4,53%	0,00%	3,13%
601010		0,00%		11,03%			3,81%
601011		0,00%		1,98%			1,0%
601012		8,30%					8,30%
601013		1,78%					1,78%
601014		0,00%		47,62%			17,72%
601015		9,28%					9,28%
601016		8,26%		0,00%			4,91%
601017							
601018							
601019		50,22%					50,22%
601020		3,04%		0,00%			1,86%
601021		5,25%		5,42%			5,31%
601022				17,07%			17,07%
601023		2,46%		0,00%			2,22%
601024							
601025							
601026		3,41%		4,60%			3,88%
601027							
601028				13,88%			13,88%
601029		0,00%		9,50%			3,52%
Sample(n)	**33**	**44**	**33**	**40**	**19**	**17**	**69**
Average							**2,46%**

Appendix Table 10.9: Cosmetics expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011							
101012							
101013	0,00%	6,30%		0,00%			2,45%
101014	0,00%	0,00%		2,89%			3,2%
101015	13,29%	0,00%		0,00%			3,22%
101016							
101017	0,00%	0,00%		3,27%			1,21%
101018							
101019	0,00%	0,00%		16,34%			3,11%
101020							
101021	0,00%	0,00%		0,34%			0,15%
101022	0,00%	2,14%	0,48%	0,00%			0,89%
101023	0,00%	1,10%		0,00%			0,47%
101024							
101025							
101026							
101027							
101028							
101029	4,98%			0,00%			0,96%
201010	0,00%	0,00%	2,31%	0,00%			0,39%
201011							
201012							
201013							
201014							
201015							
201016							
201017	0,00%	2,17%	0,00%	0,00%			0,35%
201018	1,77%						1,77%
201019	3,03%	0,00%	0,00%	0,00%			1,16%
201020	0,00%	3,51%		0,00%			0,71%
201021							
201022							
201023							
201024	0,00%	0,98%	0,00%	0,00%			0,27%
201025							
201026	0,00%	0,00%	1,86%				0,5%
201027							
201028							

201029							
521010			0,00%		0,00%	14,03%	10,25%
521011							
521012			0,00%		0,00%	4,85%	1,77%
521013							
521014							
521015							
521016			0,00%		1,89%	0,00%	0,89%
521017							
521018							
521019			0,00%		1,51%	0,00%	0,81%
521020							
521021							
521022			0,00%		0,00%	0,87%	0,58%
521023							
521024			0,00%		0,00%	3,52%	0,52%
521025							
521026							
521027							
521028							
521029			0,00%		6,21%	0,00%	2,47%
601010							
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026		0,00%		4,60%			1,84%
601027							
601028							
601029							
Sample(n)	**16**	**15**	**13**	**15**	**7**	**7**	**24**
Average							**0,33%**

Appendix Table 10.10: Water expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011							
101012							
101013							
101014							
101015							
101016							
101017	7,17%	0,00%		0,00%			1,21%
101018							
101019							
101020							
101021							
101022							
101023							
101024							
101025							
101026							
101027							
101028							
101029							
201010							
201011							
201012							
201013							
201014							
201015							
201016							
201017	0,00%	0,00%	2,19%	0,00%			0,09%
201018							
201019							
201020							
201021							
201022							
201023							
201024							
201025							
201026							
201027							
201028	0,00%	0,00%	2,70%	0,00%			0,67%
201029							
521010							
521011							

521012							
521013			0,71%		1,70%	1,24%	1,31%
521014							
521015							
521016							
521017							
521018			9,94%		0,00%		4,03%
521019							
521020							
521021							
521022			4,88%		0,00%	0,00%	0,70%
521023							
521024			1,76%		0,00%	11,89%	2,66%
521025							
521026							
521027							
521028							
521029							
601010							
601011							
601012							
601013		1,87%					1,87%
601014							
601015							
601016							
601017		6,09%		0,00%			3,87%
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**3**	**5**	**6**	**4**	**4**	**3**	**9**
Average							**0,13%**

Appendix Table 10.11: Electricity expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011							
101012							
101013							
101014							
101015							
101016							
101017							
101018							
101019	10,35%	0,00%		0,00%			5,70%
101020							
101021							
101022							
101023	0,00%	0,00%		35,01%			3,69%
101024							
101025							
101026							
101027							
101028							
101029							
201010	9,25%	0,00%	14,44%	0,00%			7,24%
201011							
201012							
201013							
201014							
201015							
201016							
201017	1,56%	3,29%	0,00%	0,00%			1,59%
201018							
201019	0,00%	0,00%	14,41%	0,00%			3,06%
201020	0,00%	0,00%		2,59%			0,78%
201021							
201022							
201023	25,42%	8,84%	0,00%	0,00%			11,84%
201024							
201025							
201026							
201027							
201028	9,06%	2,41%	0,00%	11,30%			4,64%
201029							
521010			40,00%		21,17%	0,00%	7,03%
521011							

521012			30,17%		0,00%	0,00%	10,90%
521013							
521014			7,17%		0,00%	0,00%	2,42%
521015			0,00%		7,00%		6,22%
521016							
521017							
521018			14,21%		0,00%		5,76%
521019							
521020			13,15%		0,00%	3,53%	5,40%
521021							
521022							
521023			4,69%		0,00%	0,00%	2,50%
521024			12,60%		0,00%	0,00%	6,49%
521025			3,33%			0,00%	1,69%
521026			38,00%		0,00%	4,66%	4,20%
521027			8,07%		9,85%	0,00%	6,43%
521028							
521029							
601010							
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018		18,89%					18,89%
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**8**	**9**	**16**	**8**	**10**	**9**	**20**
Average							**1,25%**

Appendix Table 10.12: Clothing expenditure as a % of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011							
101012							
101013							
101014							
101015							
101016							
101017							
101018							
101019	20,23%	0,00%		0,00%			11,15%
101020							
101021							
101022							
101023							
101024							
101025							
101026							
101027							
101028							
101029							
201010							
201011							
201012							
201013							
201014							
201015							
201016							
201017							
201018							
201019							
201020	7,10%	0,00%		0,00%			3,53%
201021							
201022							
201023							
201024	26,40%	0,00%	0,00%	0,00%			8,08%
201025							
201026							
201027							
201028							
201029							
521010							
521011							
521012							

521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021							
521022							
521023							
521024							
521025							
521026							
521027							
521028							
521029							
601010							
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**3**	**3**	**1**	**3**	**0**	**0**	**3**
Average							**0,45%**

Appendix Table 10.13: Other expenditure as a percentage of total monthly household expenditure

	December	January	February	March	April	May	Average %
101010							
101011							
101012	76,89%	0,00%		0,00%			26,99%
101013							
101014							
101015							
101016	5,04%	0,00%	0,00%				1,39%
101017							
101018							
101019	33,02%	0,00%		0,00%			18,20%
101020	9,23%	0,00%		0,00%			2,87%
101021							
101022							
101023							
101024							
101025							
101026							
101027							
101028							
101029							
201010							
201011							
201012	0,00%	0,00%	0,00%	1,83%			0,34%
201013							
201014							
201015							
201016							
201017							
201018							
201019							
201020	9,47%	0,00%		0,00%			4,70%
201021							
201022							
201023							
201024							
201025		46,57%	0,00%				44,29%
201026	9,38%	0,00%	0,00%				3,77%
201027							
201028							
201029							
521010							
521011			0,00%		22,63%	3,91%	10,24%

521012							
521013							
521014							
521015							
521016							
521017							
521018							
521019							
521020							
521021							
521022							
521023							
521024							
521025							
521026							
521027							
521028							
521029							
601010							
601011							
601012							
601013							
601014							
601015							
601016							
601017							
601018							
601019							
601020							
601021							
601022							
601023							
601024							
601025							
601026							
601027							
601028							
601029							
Sample(n)	**7**	**8**	**5**	**5**	**1**	**1**	**9**
Average							**3,19%**

Appendix 11: Household Sample from the data book

Household: HH-101011

Family Name: Zulu
Address: Phase 1, Block P, Corner 11 and Rooth, Alexandra, Johannesburg (next to Thusug Youth Centre)

Average HH Income

Average (W1,2,4)
R 493.33

Income per wave

W1	Difference (W1-2)	W2	Difference (W2-3)	W3	Difference (W3-4)	W4
R 600.00	R -320.00	R 280.00	R -280.00	R -	R 600.00	R 600.00
	-53%		-100%		#DIV/0!	

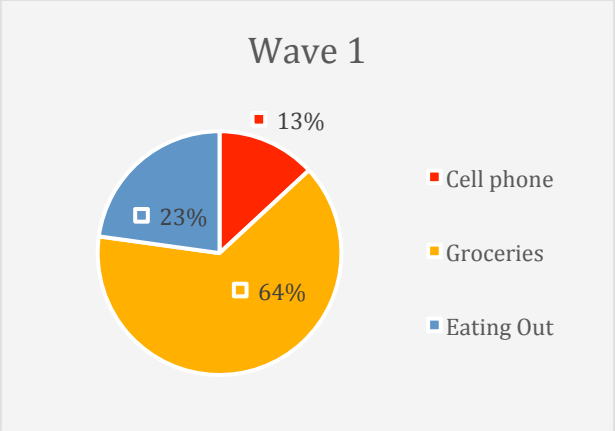
Category Expenditure per wave

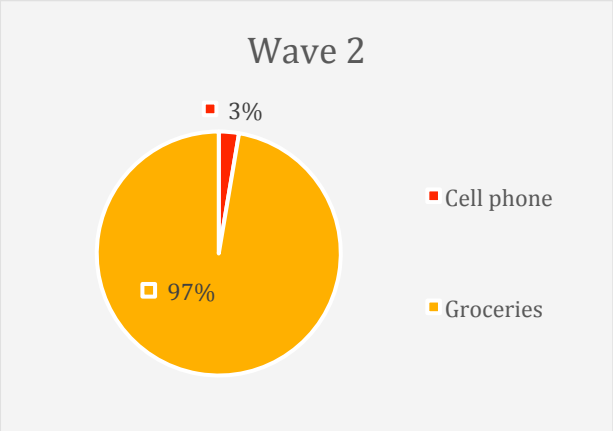
Total				
Category	Wave 1	Wave 2	Wave 4	Grand Total
Cell phone	R 115.00	R 10.00	R 15.00	R 140.00
Entertainment			R 400.00	R 400.00
Groceries	R 562.00	R 365.00	R 280.00	R 1,207.00
Transport			R 184.00	R 184.00
Eating Out	R 200.00		R 150.00	R 350.00
Grand Total	R 877.00	R 375.00	R 1,029.00	R 2,281.00

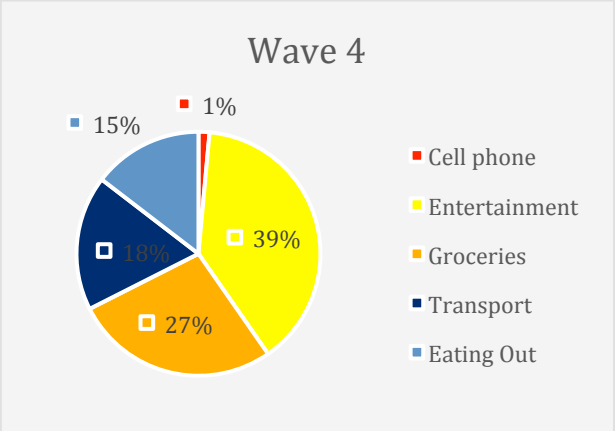
Category expenditure as a percentage of monthly expenditure

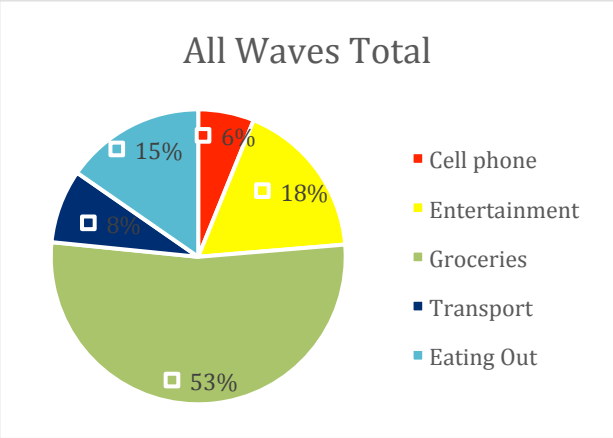
Total				
Category	Wave 1	Wave 2	Wave 4	Grand Total
Cell phone	13.11%	2.67%	1.46%	6.14%
Entertainment	0.00%	0.00%	38.87%	17.54%
Groceries	64.08%	97.33%	27.21%	52.92%
Transport	0.00%	0.00%	17.88%	8.07%
Eating Out	22.81%	0.00%	14.58%	15.34%
Grand Total	100.00%	100.00%	100.00%	100.00%

Charts of category expenditure per wave









Description of HH-101011 and qualitative findings

Fikile Elizabeth Zulu is a retired professional nurse of ten years at Hillbrow Essellen Clinic. She was born in Coronation near Sophiatown and came to Alexandra in 1985. Mrs Zulu lives at Phase 1 in Alexandra, which is a block of flats near Thusong Youth Centre (12th Avenue). She says she was forced out of her nursing job due to illness. She subsequently became a traditional healer in 1994. She is a mother of two and survives on a child support grant for her grandchild. Her eldest son helps her with financial support.

Selected interview quotes:

W1-W2 "If I do have money I spend a lot for entertainment, and when I do entertain, I do it big, I invite my friends and neighbors". Sometimes we go out for a mini picnic"

"Yes I do because it works for me, it helps me to communicate with people and it also helps me with appointments and business proposals."

	"Things like rice are still available, mealie meal and flour but other things are finished because we eat every day we are taking pills so now and then you need to eat"
	"Well, yes there's a little bit of a difference with the December holidays because families are together in December and we spend more in December than during the year as families get together as they are big holidays so we spend more"
	"You can plan to have things happen normally and you find yourself getting out of budget because of the way you eat or socialize is different now compared to the rest of the year
	"We normally buy lots of drinks, we drink a lot during the festive season even if it's not alcohol but we drink a lot, and on other things it depends on the people you have around you but mostly it's drinks, meat and snacks"
	"When children are home they have a lot of needs and demand you spend a lot of money. When schools are opened it gets better. Now that the schools are closed children are also tempted into doing wrong things especially if there are no sport activities."
W2-W3	"My daughter, Zintle, registered for computer school."
	"Last time we met I had a serious problem on my ID. But now I'm pleased to tell you through legal aid, there is a light at the end of the tunnel. Even though I won't to get money for disability but I'll get loans."
	"Mashonisa borrowed R4000 for a traditional ceremony, my son is paying it"
	"I borrowed R50 from my sister and R100 from my neighbor"
W3-W4	"Nothing much changed - still struggling. I wish my daughter can get a job. I'm still waiting for my pension pay-out for the first time as the pensioner. I think this will bring some kind of relief to the family survival."
	"I went to Makapanstad for traditional cleansing "
	"I don't have a plan for this month because for the last 3 months I was ill and I don't have money."
	"It's a hectic time because its busy, I usually buy uniform in December and then I relax in January"
W4-5	"Nothing much to say except finally I received my new smart ID to enable me to get me my old age pension"

Appendix 12: Ethics Approval Letter

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James Lappeman
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12 December 2014

Dear researcher

This letter serves to confirm that all the data from the study "Connecting with the Majority" is available to you for your doctoral thesis. Professor Harold Kincaid of the Commerce Ethics in Research Committee approved all elements of this research in October 2013. This data is for your use, and has not been published or made available to anyone else.

Regards

Signed

Paul Egan
Head consultant
UCT Unilever Institute

Appendix 13: Excerpt of thematic analysis

Household	Observation from the financial diary data	Quotes	Insight notes	Code
HH101010	From W1-W2, expenditure on entertainment decreased from 15.28% to 0.00%.	"Nothing special except the family gathering. We discussed a lot of family matters."	During the interview, the head of the family mentioned that each family has to bring their contribution to the family gathering. Hence, this contribution is part of the entertainment budget. The family also partied on reconciliation day; again adding up to the entertainment budget. They also mentioned that they enjoy a lot during the festive season, this surely puts a strain on their budget and they can't really afford entertainment in wave 2 (explaining the decrease in entertainment expenditure).	**ONCE-OFF** **ONCE-OFF EXP** **FESTIVE**
		"Attend birthday party of my cousin" (W1-2)	Moreover, the family admits eating out a lot during the festive season of December; but not really during the year (again explaining the decrease).	**GROCERY-ENT/EAT**
	From wave 1 to wave 2, grocery expenditure rose from 82.18% to 99.35%.	"…available but the items that we use daily are finished"	Maybe they had to buy a gift for their cousin's birthday and pay for travelling. They could not hence afford any other kind of entertainment from W1-W2. As mentioned in the interview, in January, the family run out of basic groceries and therefore they have to stock up. This explains the increase in grocery expenditure.	**ONCE-OFF EXP** **FESTIVE** **MULTI-MONTH**
HH101012	Expenditure for "other" category was 76.89% in wave 1 but decreased to 0.00% in waves 2 and 4.	"I can't forget the death of my sister's child who was brutally murdered by her boyfriend on 26 December " "my uncle was attacked by a stroke."	The "other" category might have included expenses with regards to the unfortunate death-for instance travel expenses for the funeral, monetary contribution to help out the sister, monetary contribution for the funeral ceremony. Here, "other" could also include health care costs; because of the trauma their health was affected. Maybe the family incurred travel expenses to visit the uncle; maybe	**ONCE-OFF EXP** **SHOCK**

		"I paid some debts with my grant money and I still have some shortage like Lewis (Furnitures)…" "We also had a funeral here in the area so I had to contribute towards it as well…"	they also incurred expenses towards caring for the uncle, for instance foodstuffs, monetary relief to the uncle's family.	**ONCE-OFF EXP**
	From W1-W2, expenditure on groceries increased from 22.54% to 97.97%.	"on Christmas day Checkers Hyper came through and gave us some groceries and we had a nice Christmas…" "my first born gave me some grocery that is worth 500…"	From the interview, it can be concluded that the "other" category also included: paying outstanding debt and contributing towards funeral.	**ONCE-OFF EXP** **FESTIVE**
		"To be honest with you in December I didn't buy anything the only thing I have is the food that was given to me by Shoprite hyper and my child also bought me grocery that is all I have…"	In Wave 1, they spent a lot with regards to the death and could not afford to spend a lot of groceries. Maybe in Wave 1, the family was eating at the sister's place (death rituals perhaps) and much expenditure on groceries was not required. Then, they had to stock up on groceries in wave 2.	**SHOCK**
			Here, the household head admits not having to buy much groceries in wave 1. Thus she had to stock up again in wave 2; explaining the dramatic increase in groceries expenditure.	**MULTI-MONTH**
HH101011	From wave 1 to wave 2, expenditure on entertainment decreased from 22.81% to 0.00%.	"If I do have money I spend a lot for entertainment, and when I do entertain, I do it big, I invite my friends and neighbors". Sometimes we go out for a mini picnic"	From the interview, the family admits spending a lot on entertainment, especially during the festive season, thus explaining the high entertainment expenditure in wave 1. In wave 2 however, they cannot really afford entertainment, explaining the decrease.	**GROCERY-ENT/EAT** **FESTIVE**
	In wave 1, 13.11% of the expenditure was devoted to cell phone.	"Yes I do because it works for me, it helps me to communicate with people		

	This percentage subsequently decreases to 2.67% in wave 2 and 1.46% in wave 4. Grocery expenditure increased from 64.08% in wave 1 to 97.33% in wave 2.	and it also helps me with appointments and business proposals." "Things like rice are still available, mealie meal and flour but other things are finished because we eat every day we are taking pills so now and then you need to eat"	The head of the family admits using cell phone a lot for communication purposes, explaining the high percentage devoted towards cell phone expenditure in wave 1. Then, it is most likely that in waves 2 and 4, the head still had some left over airtime and did not have to spend much on cell phone. From the statements, it is clear that the family has to stock up of a lot of groceries in wave 2; explaining the increase in grocery expenditure.	**ONCE-OFF EXP** **MULTI-MONTH** **MULTI-MONTH**
HH101016	From W2-W4, expenditure on groceries increased from 35.95% to 67.75%. Expenditure on cleaning materials increased from 0.00% to 10.31% from wave 1 to wave 2.	**"**schools have just closed and my children did well in their academic progress**"** "…groceries we get during December help and we also buy in bulk so that helps. " "This year my January was not hectic for me as compared to other years, i have already joined a stokvel whereby we will be contributing 300 every month we take it to freedom supermarket we will collect that money at the end of the year…" "In January I buy small grocery to add on Decembers grocery i buy things like soap, chicken, bread…" "I still have the grocery because they last in December we bought things in bulk…" "…i also have stockvel for soaps where we contribute R100 each month you get 2kg powder soap, 2 bar sunlight, soap for bathing and dishwashing liquid and sta-soft…"	Since schools have closed, the 2 children who are at varsity are likely to come home for the holidays; explaining the higher expenditure of groceries. From the interview, it can be deduced that the family did not have to spend much on groceries in waves 1 and 2 because: • They bought in bulk in December and only have to add up on groceries in waves 1 and 2. • The stockvel the household head has joined helped in accumulating groceries. Thus, they had to stock up in wave 4, explaining the increase in grocery expenditure. The family had their stock of cleaning materials in wave 1 thanks to the stockvel. The increase is due to the fact that the family had to stock up on	**MULTI-MONTH** **ONCE-OFF EXP** **MULTI-MONTH** **STOKVEL** **STOKVEL**

			cleaning materials in wave 2.	
HH101019	Expenditure on clothing was 20.23% in wave 1, and decreased to 0.00% in wave 2. Electricity expenditure was 10.35% in wave 1; however, electricity expenditure was none for the remaining waves. Grocery expenditure was only 31.56% in wave 1 (at least 20% less than on average) and increased to 95.99% in wave 2. Expenditure for the "other" category was 33.02% in wave 1. For waves 2 and 4 none was spent on this category.	"I recall the funeral of my aunt - she was very old but we'll remember her kindness and caring humility." "this funeral also distribute the family gathering that we planned" "parnership meeting between traditional doctors and health dept" "And try to get money to buy my children clothes for Christmas day and New Year's. They might not be expensive, but beautiful." Not available **"**I'm very happy that my in-laws are coming to finish off lobola fir my younger sister. We were having some disputes on this but has since settled down" "The food can last until next year till second week of January. That's why stokvels help." "i recall the funeral of my aunt - she was very old but we'll remember her kindness and caring humility." "this funeral also distribute the family gathering that we planned" "Sometimes I overspend and then need to get things that are not beneficial, like alcohol or go watch the movies in a cinema."	Clothes had to be bought for the funeral and family gathering. For the partnership meeting, formal outfits had to be bought. From the interview, it can be deduced that money was spent on buying new clothes for the children, explaining the large decrease. Surely, new clothes were not needed in wave 2 (after the festive season). Maybe the family pays electricity upfront for 4 months. Hence, they pay for electricity in wave 1 and they make an effort so that the prepaid electricity lasts until wave 4. The sharp rise in grocery expenditure can be attributed to the fact that more groceries was needed to cater for the in-laws. Since most of the spending was allocated to grocery, very little or none was spent in other categories. From the interview, it can be concluded that owing to buying in bulk and stockvels, the family still had groceries in wave 1 and did not have to spend much on it. However, in wave 2, they might have run out of most items and had to stock up on their groceries.	**ONCE-OFF EXP** **SHOCK** **ONCE-OFF EXP** **FESTIVE** **STOKVEL**

	Expenditure on cosmetics increased from 0% in waves 1 and 2 to 16.34% in wave 4. From wave 2 to wave 4, expenditure on health care increased from 0.00% to 10.35%. Eating-out expenditure rose from 0.00% to 11.03% between waves 2 to 4.	"There have been lots of weddings lately in the family." "Attended a funeral of a colleague in 12th avenue. Workshop at health department. We took a trip to social development to endorse a ruling party manifesto."	High expenditure for the other category might be because of transport costs (to and from funeral), general funeral expenses such as monetary contribution to help out the family of the deceased. Other expenses can also include expenses towards the family gathering, such as contributing for drinks, food and other entertainment. From the interview, it is clear that the head of the family might have spent on alcohol or other leisure activities. The family had to dress up for the two weddings and thus bought cosmetics for the wedding occasion during wave 4. Maybe they did not have much to spend for the other categories and hence decided to cater for their health-maybe do general check-ups at the dentist or doctor. On the way to the funeral, the family probably ate out. They also spent money on eating outside during the trip to social development.	**GROCERY-ENT/EAT** **GROCERY-ENT/EAT** **ONCE-OFF EXP** **ONCE-OFF EXP** **SHOCK**