The use of mobile phone advertising as an effective medium to reach the South African urban Bottom of the Pyramid

By

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Abstract

This research study investigates the requirements or factors that will influence the acceptance and impact of mobile phone advertising to the urban Bottom of Pyramid (BoP). The framework incorporated awareness, availability, acceptability and convenience as factors for effective mobile phone advertising.

Mobile phones have received unprecedented penetration rates across all markets, including LSM 1-4. This presents companies targeting this market with an excellent advertising medium with which to communicate to consumers.

Companies have begun advertising via mobile phone and this research investigates the impact of this advertising, in relation to other more established mediums, as well as the most optimal mobile phone service to be used in delivery of the advertising message. The type of advertising being sent to BoP via mobile phone advertising is analysed, along with the type of advertising the urban BoP market would like to receive and possible differences identified.

The research examines the recall of advertising message across various advertising media and comparisons are drawn.

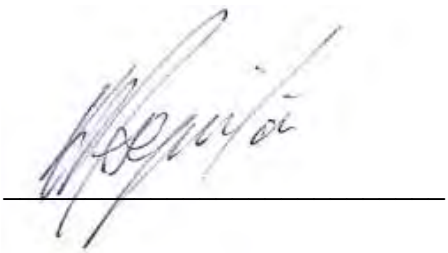
The research found that all aspects of the framework were applicable. Convenience and acceptability were seen as the highest drivers for effective mobile phone advertising to the South African urban BoP.

Keywords

Mobile Phone Advertising, Low-income markets, Bottom of the pyramid (BoP), BoP Marketing

Declaration

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



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1. INTRODUCTION TO THE RESEARCH PROBLEM

1.1 Research Title

The use of mobile phone advertising as an effective medium to reach the South African Urban Bottom of the Pyramid.

1.1.1 Research Motivation

There is scarcity of marketing research in the wireless advertising domain, and prior research (Bruner & Kumar, 2005) does little to qualitatively understand or explain consumers perception of wireless advertising (Amato, Hollenbank & Peters, 2007). The true value-added benefits of mobile advertising may be complex and not readily apparent and in order to investigate this further within the business context focusing on the Bottom of the Pyramid (BoP), the following four motivational factors are described;

1.2.1 Potential of BoP for Business

The concept and viability of the BoP market has been questioned by Karnani, stating that there is little economic value to be gained as consumers in these markets spend up to 75% of their income on basic necessities, such as food and transport, thus leaving them with little left to purchase anything else (Karnani, 2007). Although there is some merit in the concerns raised by Karnani, Prahald (2010) provides numerous successful cases of companies realising the profits available from the BoP. In agreement with Prahalad, Porter and Omar (2007) state that the slowing growth rates of the 'Triad Market' (United States, Europe and Japan) has seen more companies turning to emerging economies for sales and profits.

1.2.2 Large Scale adoption of Mobile Phones by BoP

When first introduced to the market in the late 1980s, mobile phones were seen as a luxury technology for the rich. However, since network operators and mobile phone manufacturers started targeting the large demand for affordable communication by the

world's phoneless majority, mobile phones have become adopted by all social classes across the world (Kreutzer, 2010). Through qualitative studies, it has been found that mobile phones are accessible to people of all socio-economic backgrounds (Da Silva & Zainudeen, 2008). Especially in Africa, one of the world's poorest continents, the widespread adoption of mobile phones has been unparallel to any other in history. Across the continent, there is currently one active phone per every three inhabitants (Global Services for Mobile Communication Association, 2010). In South Africa there are as many active subscriptions as inhabitants, but this industry data does include multiple phones used by the same person (Kreutzer, 2010).

1.2.3 Ubiquitous Nature of Mobile Phones

The ubiquitous nature of mobile phones makes them an ideal advertising vehicle (Amato et al., 2007). The size and portability of the mobile phone is ideal for getting the right kind of information to the consumer at the right time. Conclusions from a recent investigation of consumer's perceptions of wireless advertising concluded that traditional advertising channels, including newspaper, magazine and television, fail to measure up to the ubiquitous nature of WAM (Wireless Advertising Messages) (Amato et al., 2007). The fact that mobile communication is available from any place and at any time creates value through its convenience (Mohammed, 2010). This presents business with the unique ability to advertise to the chosen markets at any time and location.

1.2.4 Reach and Captive Audience

Mobile phones now form an intrinsic part of the daily lives and habits of billions of people worldwide (Sinclair & Wilken, 2008). This coupled with the fact that the number of mobile phone users now exceeds that of adult TV viewers and radio listeners in South Africa (South African Advertising Research Foundation, 2010), provides marketers with a larger scope to reach consumers through mobile advertising.

Mobile phones are almost always switched on and generally stay with users throughout the day (Yuan & Zhang, 2003), providing a captive audience for mobile advertising through SMS, MMS, ring tones, mobile games and other mobile phone services. Mobile advertising provides the flexibility of push and pull methods of advertising, where users can automatically receive advertisements, and also retrieve advertisements through services such as 3G and HSDPA – enhancing the captive nature of this advertising medium. With traditional media there is a large possibility that the audience may be distracted while exposed to the advertising message.

1.2.5 Potential of Mobile Phone Advertising to Multinational Corporations

Mobile advertising has shown to have low production costs for mobile phone services such as SMS and MMS. This makes it possible for both large organisations with massive marketing budgets, and smaller businesses with relatively small marketing budgets, to embark on sophisticated mobile advertising campaigns. In many developing countries, mobile phones are often the first screen that consumers will have personal access to, more than a PC or even a TV, moreover, due to having a personal nature, mobile phones are mostly attached to the consumer at all times, emphasising the importance for this medium to business (Naidoo, 2010). The advertising industry is seen to have taken considerable initiatives to provide solutions within the mobile environment due to its relevance, customisable and immediate nature, enabling mobile phones to become a realistic advertising medium for business, including those targeting BoP.

1.3 Research Problem

Does mobile phone advertising provide South African businesses, and Multinational Corporations (MNC), an effective channel with which to market goods and services to the South African Bottom of the Pyramid market?

Radio, Print, TV and Outdoor are being extensively used within the marketing mix across all LSM segments, including BoP, but advertising via mobile phones is becoming a more prevalent means of advertising as it provides a more direct means of communicating to the target audience (Kajalo, Marisavo, Karjaluoto, Virtanen, Salmenkivi, Raulas, & Leppaniemi, 2007). New applications and services linked to mobile phones, such as MMS, games, music and digital photography, have emerged and are already being used by some marketers (Kajalo et al., 2007). Should companies use this technology as part of their marketing mix? Is it a means of specifically targeting the BoP as an alternative or additional media vehicle?

The use of mobile advertising can deliver a more targeted marketing message, focusing directly on the selected segments within the BoP. Through purchasing consumer databases, companies are able to more specifically target their audience with a tailored marketing message, communicating directly to the pre-determined segment.

2. LITERATURE REVIEW

2.1 Introduction

There has been much debate about the BoP as a viable business opportunity with long-standing beliefs that there is not a substantial market at the bottom of the pyramid and that consumers within this market are not needed by Multinationals. Furthermore, it is a common belief that the BoP will not accept or do not need advanced technologies, and cannot be a source of innovation (Franzak, Pitta & Wood, 2008).

The growth of the mobile phone has broken these beliefs and is just one example of the accumulating evidence that this segment does indeed represent a viable business opportunity for MNCs. According to Prahalad (2010), more than 4 billion mobile phones will be in use by 2011. Most of the growth of the mobile phone market is attributed to the Bottom of the Pyramid markets. Through Sub-Saharan Africa, China, Southeast Asia, India, and Latin America and Eastern Europe, there is not a single country where the poor have not adopted the mobile phone into their everyday lives. Many successful firms have emerged out of this opportunity, some are new firms, and others are new businesses in older firms. Mobile Telephone Networks from South Africa, CelTel in Sub Saharan Africa, a dozen competitors in India led by Bharati Airtel, and Globe in the Philippines are some examples (Prahalad, 2010).

The mobile phone revolution has demonstrated beyond doubt that there is a market for world-class goods and services if they can be made available at affordable prices. For example, a “mobile phone minute” costs less than $0.01 in India, probably the lowest rate anywhere (Prahald, 2010).

The spread of the mobile phone has made this the device of choice for not only communications but also computing, entertainment, and delivery of a wide variety of services (Kotze & van Biljoen, 2007).

It could be said that the mobile phone has shown that the Bottom of the Pyramid is not just a market but also a source of innovation in business models and applications. It has transformed the lives of the poor (Prahalad, 2010).

2.2 Bottom of the Pyramid

The distribution of wealth and the capacity to generate income in the world can be captured in the form of an economic pyramid (Prahalad & Hart, 2002). At the tip of the economic pyramid, are 75 to 100 million affluent Tier 1 consumers with numerous opportunities for generating income. In the middle of the pyramid, Tiers 2 and 3, are poor consumers in developed countries and the rising upper class consumers in developing countries. These consumers represent the targets of many MNCs past emerging-market strategies. The 4 billion consumers in Tiers 4 and 5 constitute the Bottom of the Pyramid. Their annual per capita income at purchase power parity is less than $1,500 which is the minimum considered necessary to sustain a decent life (Prahalad & Hart, 2002).

Figure 1: The Economic Pyramid. (Prahalad & Hart, 2002)

Louw (2008) divides the BoP into two main sectors: BoP 1, the bottom part of the BoP representing a population of 2.8 billion earning less than $2 per day, and BoP 2 as the remainder of the BoP population.

An extensive study by the World Resources Institute / International Finance Corporation shows that the BoP consumers account for $5 trillion in Purchasing Power Parity terms (Prahalad, 2010). According to World Bank projections, the population at the bottom of the pyramid could grow to more than 6 billion people over the next 40 years, because the bulk of the world's population growth occurs here (World Bank, 2007).

2.2.1 Purchasing Power at the Bottom of the Pyramid

The most obvious characteristic of the consumer at the BoP is their low level of disposable income (Prahalad & Hammond, 2002; Duysters & SadreGhazi, 2008). Duysters and SadreGhazi (2008) declare that this problem manifests itself in two ways; firstly through low purchasing power and secondly through lack of access to credit.

For the most part, the consumer at the BoP receives fluctuating daily income rather than a constant monthly income. This makes it increasingly difficult for them to make high once-off purchases of goods or services. Conversely, in higher-income countries, consumers have access to credit to make purchases of high value items. However, banks do not provide credit to those without a steady monthly income, and as a result, lower income consumers are forced to pay higher interest rates to informal money lenders to overcome credit problems.

Furthermore, the low income consumer often has to pay higher prices for many of their basic goods and services than their middle to high-income counterparts – a phenomenon called "poverty penalty" (Duysters & SadreGhazi, 2008).

Prahalad and Hammond (2002) dispute the widely held assumption that the poor have no money. It is acknowledged that individual incomes may be low within the BoP segment however; the aggregate buying power of the communities is usually quite large. For

instance, the average per capita income of villagers in rural Bangladesh is less that $200 per year, but collectively they are avid consumers of telecommunications services.

Low-income consumers may spend as much as 50% of their income on food alone (Duysters & SadreGhazi, 2008), however, as stated by Prahalad and Hammond (2002), it is incorrect to assume that this consumer is too concerned with fulfilling their basic needs to "waste" money on non-essential goods. While the fulfilment of basic needs is important, the poor consumer does indeed purchase "luxury" items. They spend their income in ways that reflect a different set of priorities. They may not spend their disposable income on sanitation, clean running water, and better homes, but spend it instead on items traditionally considered luxuries (Prahalad, 2005). Without legal title to land, as is the case in many BoP markets, they are unlikely to invest in improving their living quarters, much less the public facilities surrounding their homes. For example, in the Mumbai shanty town of Dharavi, 85% of households own a television set, 75% own a pressure cooker and a blender, 56% own a gas stove, and 21% have telephones. These consumers spend their income on things that can improve their quality of life today, rather than saving for a rainy day (Prahalad, 2005). Gomez-Arias and Subrahmanyan (2008) also support this sentiment. Belk (2001) is cited as pointing out that humans have long since satisfied their "higher order" needs even when there was a lack of material goods as evident from the cave paintings and sculptures from 30,000 years ago. Belk (2001) provides various examples where luxury goods are consumed by the poor who logically would not be able to afford them. To further support this sentiment, there are cases where the poor have chosen a relatively costlier but better service, such as private education for their children in some Indian and African slums (Tooley, 2007).

2.2.2 Location and Diversity

The BoP represents a more diverse cultural variety and geography than that of the top of the pyramid. These markets may often be isolated and can be described as under developed when it comes to basic infrastructure like water, electricity and roads which

makes accessing and educating these consumers more difficult (Anderson & Billou, 2007; Duysters & SadreGhazi, 2008). Furthermore, limited access to media makes common media advertising practices less effective. Duysters and SadreGhazi (2008) highlighted the need for a variety of approaches in accessing and educating the consumers in low-income markets, for example, simple billboards on walls, truck-mounted demonstrations and the use of local communities to spread the word.

2.2.3 Literacy and Knowledge

Product acceptance by consumers is largely dependent on the ease of use or simplicity of the product offering. There have been many cases where new products highly acclaimed by their producers have failed due to their complexity. This is however not unique to any specific type of market, but does have critical implications in the BoP (Duysters & SadreGhazi, 2008).

Low literacy levels are characteristic of the BoP consumer, and according to Duysters and SadreGhazi (2008), almost one fifth of adults globally are functionally illiterate. This dynamic of the BoP market poses great challenges to organisations to ensure that their products as well as their advertising are simple and easy to use and understand.

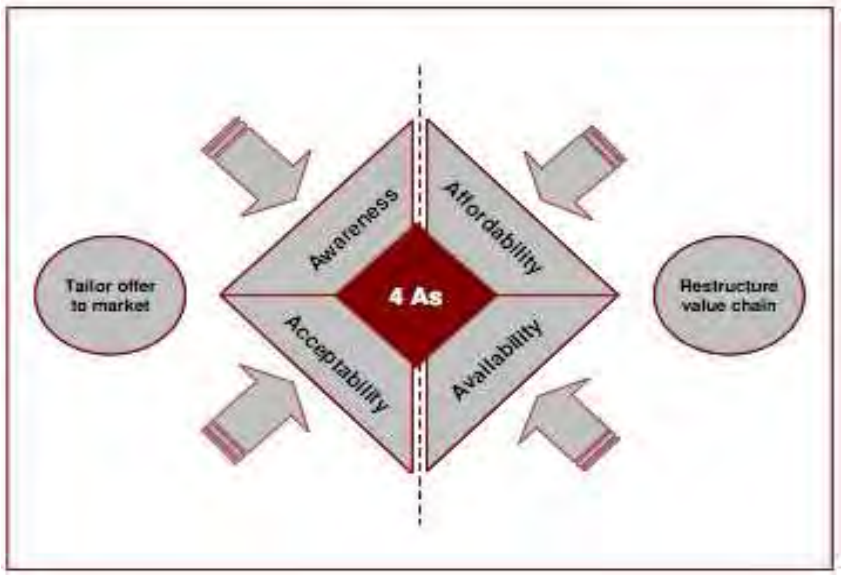
2.2.4 Accessing the BoP – 4A's Framework

As explained by Anderson and Billou (2007), many companies, particularly those based in developed countries, choose to focus their efforts on the middle and upper income segments due to a number of characteristics which are typical to BoP markets. The authors describe these characteristics as corruption, poor infrastructure, non-existent distribution channels, illiteracy, lack of robust and enforceable legal frameworks, religious or racial conflict, and sometimes even war or violent insurgencies that stifle the enthusiasm of companies in servicing people living in poverty. Anderson and Billou (2007) have however discovered MNCs who have accepted the challenge of servicing the poor and have done so effectively. It is explained that at the heart of this success is the

development of an approach that delivers the 4As (availability, affordability, acceptability and awareness) in accessing the BoP markets. Anderson and Billou (2007, p.14-21) go on to explain the 4As as follows:

- Awareness – the degree to which customers are aware of a product or service. With many BoP customers largely inaccessible to conventional advertising media, building awareness can be a significant challenge for companies wishing to serve low-income consumers in the developing world. To overcome these constraints companies must explore alternative communication channels.
- Availability - the extent to which customers are able to readily acquire and use a product and service. Distribution channels in the BoP markets can be fragmented or non-existent and the task of simply getting products to people can be a major hurdle to overcome. Companies need to explore alternative methods of delivering their products and services to even the most isolated BoP communities.
- Affordability – the degree to which a firm's goods or services are affordable to BoP consumers. Many low-income consumers in developing countries survive on daily wages, meaning that cash-flow can be a significant problem. Companies need to be able to deliver offerings at a price point that enables consumption by even the poorest consumers.
- Acceptability – the extent to which consumers and others in the value chain are willing to consume, distribute or sell a product or service. In BoP markets, there is often a need to offer products and services that are adapted to the unique needs of both customers and distributors. Companies might need to respond to specific national or regional cultural or socioeconomic aspects, or to address the unique requirements of local business practices.

Figure 2: The 4A's Model. (Anderson & Billon, 2007)



2.2.5 South African BoP Market

The Western view of the BoP is one of individualism. In contrast, Triandis (2001) found that individualism is the result of wealth and mobility within a population, of which neither is present in the BoP. This view is further supported by Chipp and Corder (2010), who assert that the BoP consumer is unlikely to be highly individualistic in nature, but rather part of a collective.

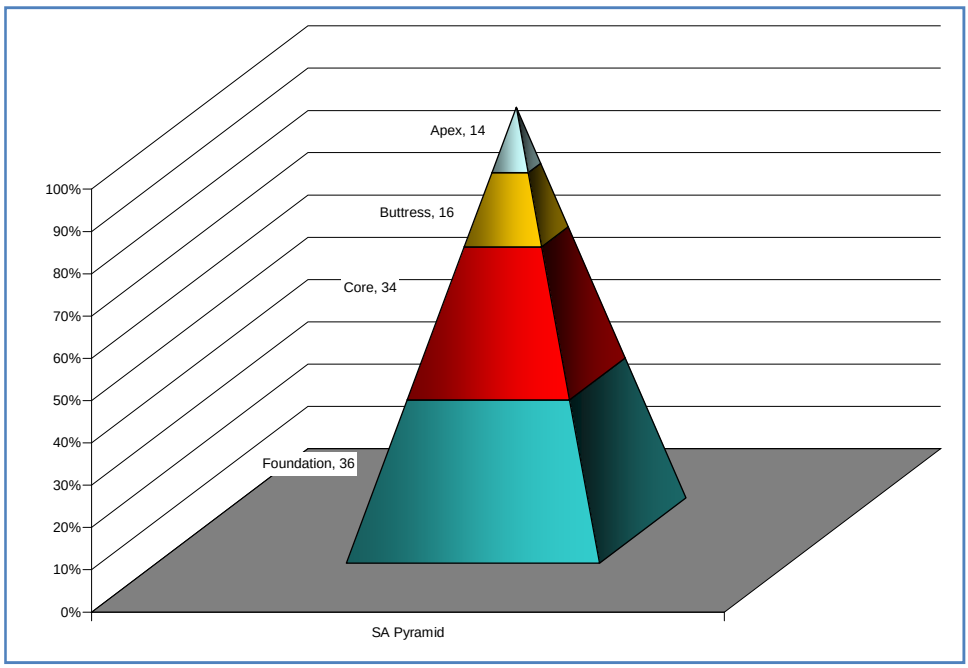
Chipp and Corder (2010) have successfully argued and provided evidence for the use of household measures to define the BoP. South Africa has an empirically derived definition of all social strata based on household variables which is termed the Living Standard Measures (LSM) (Haupt, 2006).

The South African economic pyramid is made up of 4 tiers: Foundation, Core, Buttress and Apex (Chipp & Corder, 2010). The Foundation tier defines LSM 1-4, the Core defines LSM 5-6, the Buttress defines LSM 7-8, and the Apex defines LSUM 9-10. According to Chipp and Corder (2010), the Foundation tier, LSM 1-4 represents the South African BoP segment; a sizable market of 11 million consumers. The South African BoP consumer can

be defined as individuals with a personal income of $8.33 per day (21 working day month) and a household income of $13.14 per day.

The implications of the collective nature of the South African BoP is that these poorer communities generally make financial decisions as a collective household rather than individuals due to the limited amount of disposable income.

Figure 3: South African Economic Pyramid. (Chipp & Corder, 2010)



The principle of collectivism (Chipp & Corder, 2010) can be illustrated in context to this research through the example provided by Samuel, Shah and Wenina (2005) where in many cases, within the South African BoP, mobile phones are not personally owned, but shared among individuals in a single household, or used in a communal facility.

2.3 Emerging Market Technology Adoption

Emerging markets are nations with social or business activity in the process of rapid growth and industrialization. At 2006, there were around 28 emerging markets in the world, with the economies of China and India considered is to be the largest. By 2010, the 28 countries had evolved to over 40 countries, according to EmergingMarkets.org (2010).

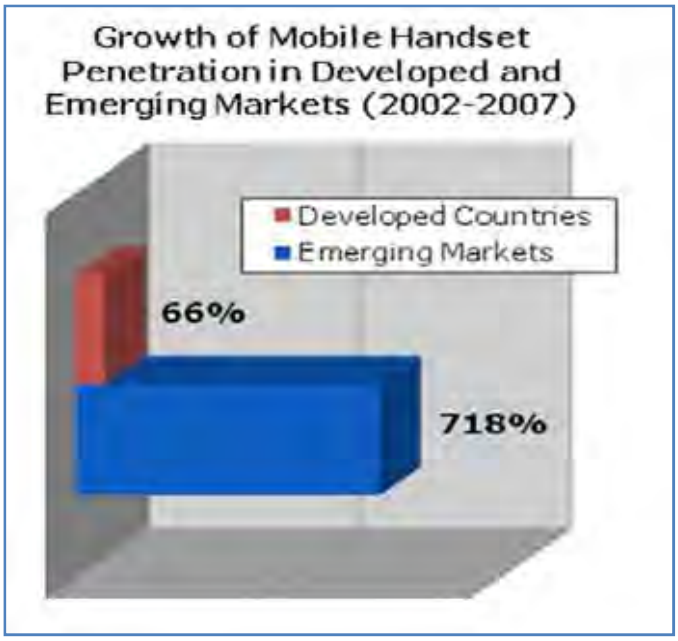
Emerging markets are seeing many situations of ‘leap frogging’. In computing, many consumers are going directly to laptop purchases rather than starting with the traditional desktop models. In mobile phone technology, mobile usage has defused among rural communities, and new technologies have helped people who could not utilise an older technology, such as fixed line telephones. The consumer has leapfrogged fixed line telecommunications and makes use of a more sophisticated device which offers more value. (Duysters & SadreGhazi, 2008). Many emerging-market operators are offering services such as cash payments and balance transfers via mobile phones. Kenya’s Safaricom mobile money service, M-PESA, provides a platform allowing mobile customers who do not have a bank account to perform basic operations like cash deposit, withdrawal, and transfer (Wyman, 2010).

For emerging markets, technology is quickly becoming not only a luxury but a vital tool. An African example is that of small scale farmers in Uganda and Ghana who easily access the information on weather and market prices for their crops via their mobile phones (Esoko, 2011).

Figure 4: Mobile Phone Subscriptions. (Informa 2010)

The reason why mobile phones are so valuable to people in the poor world is that they are providing access to telecommunications for the very first time, rather than just being portable adjuncts to existing fixed-line phones, as in the rich world. “For developed markets it was incremental—here it’s revolutionary,” says Isaac Nsereko of MTN, Africa’s biggest operator (The Economist, 2009). Adding an extra ten mobile phones per 100 people in a typical developing country boosts growth in Gross Domestic Product (GDP) per person by 0.6 percentage points (Dasgupta, Meschi, Reillier & Waverman, 2007).

Figure 5: Mobile Handset Penetration. (Informa, 2010)



With more than three billion subscribers around the world, mobile phones have out-diffused virtually every prior technology, whether TV sets, radios, wrist watches, wallets, wireline phones, or bicycles. Mobile phones are now used by about half of the world's population (International Telecommunication Union, 2010).

A study by media research firm, Informa Telecoms & Media, inform that by 2013 emerging markets will account for a 60% share of the mobile market (Informa, 2010.)

Technology Adoption Study (Accenture, 2010.) stated that emerging market consumers are especially interested in mobile technologies, far more than their mature-market counterparts. They also are more than twice as likely to describe their mobile phone as their most important technology. With a greater desire for all different kinds of technology, emerging-market respondents take full advantage of the activities available on any one technology. The net result is that the breadth of technology use appears to be much greater in emerging markets.

Though TV and radio are the most common technologies in emerging markets, there is a very high demand for “newer” technologies such as PCs, mobile phones and Internet connectivity (Soete, 2010).

In 2006, the mobile phone became the first communications technology to have more users in developing countries than in developed ones. More than 800 million mobile phones were sold in developing countries between 2003 and 2006. (Global Services for Mobile Communication Association, 2010).

2.3.1 Mobile Phone adoption in South Africa

In 2008, internet users in South Africa reached 4,590,000 according to South African leading technology research organisation World Wide Worx (WWW, 2010).

The figure below represents the number of internet users as a percentage of the total population, and displays slow year-on-year growth with certain years remaining static.

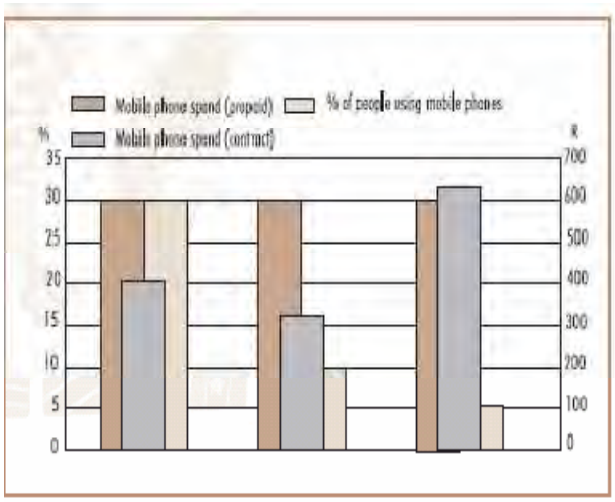
Figure 6: Growth of South African Internet Users. (World Wide Worx 2010)

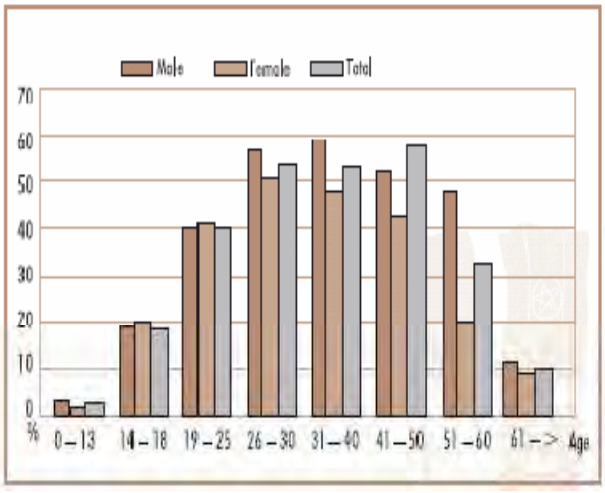
YEAR	Users	Population	% Pen.	Usage Source
2000	2,400,000	43,690,000	5.5%	ITU
2001	2,750,000	44,409,700	6.2%	IWS
2002	3,100,000	45,129,400	6.8%	ITU
2003	3,283,000	45,919,200	7.1%	Wide World Worx
2004	3,523,000	47,556,900	7.4%	Wide World Worx
2005	3,600,000	48,861,805	7.4%	Wide World Worx
2008	4,590,000	43,786,115	10.5%	W.W.W
2009	5,300,000	49,052,489	10.8%	W.W.W

The South African mobile phone market on the other hand has seen rapid uptake since competition was introduced within the sector in the 1990s. At the end of 2008 the total mobile phone market reached 44 Million users and in quarter three of the same year, the number of mobile phone subscribers reached the same number (World Wide Worx, 2010). This is forcing network operators to find innovative ways of distinguishing themselves from the competition, largely being realised through 3G and HSDPA mobile broadband services, which rival available DSL fixed-line offerings in terms of speed and price. This provides not only internet access to almost all mobile phone users, including those at the Bottom of the Pyramid, but also the M-Commerce service associated with internet connectivity

Little difference exists in gender mobile phone ownership in South Africa, with only a five percent variance in favour of men (Burton, Esselaar, Gillwald & Stavrou, 2005). In terms of age, ownership is highest amongst those between the ages of 30 and 34, followed by those between 25 and 29 years and 35 and 39 years, with ownership dropping sharply after the 45 to 49 age range. Results from a UNICEF study of mobile phone acceptance in poor markets, showed that more than half of the respondents said they did not ever share their mobile phones, while 45% said they occasionally shared, and only 23% said their phones was regularly used by their family (Shackleton, 2007).

Figures 7a &7b: Mobile Phone Spend. (Unicef, 2007)





Anderson (2007) believes that the success of mobile network operators in penetrating low income customers has been patchy at best, and that most companies choose to focus on the middle and upper incomes of the developing world.

Anderson's findings can be challenged through understanding that the South African BoP represents 75% of the total population (World Resource Institute, 2007), and with almost 45 million mobile phone users out of the an estimated population size of 49.99 million people (Statistics SA, 2010), it can safely be concluded that the BoP market has adopted mobile technology with as much enthusiasm as the middle and upper income segments of the country. In support of this view, the study; Mobile Communications in South Africa, Tanzania and Egypt, concluded that income is not a significant barrier to access to mobile telecommunications (Samuel et al., 2005). The researchers further concluded that poor public phone service (fixed line service) has been referred to by a number of respondents in South Africa as one of the key reasons for relying on mobile phones (Samuel et al., 2005).

2.4 Marketing to BoP

Gomez-Arias and Subrahmanyan (2008) described BoP markets as largely rural with the majority living in Africa, South Asia, Eastern Europe, Latin America and the Caribbean. These consumers all belong to the same BoP segment but are not homogenous. They represent extreme variety in terms of their levels of literacy, rural-urban mix, geographical mix, cultural and religious differences and every other conceivable basis for segmentation. Like most markets, there is no “one size fits all” marketing plan for companies engaging or considering engaging the BoP market.

However, according to Franzak, Pitta and Wood (2008) there are two elements of the BoP proposition that have been identified as highly correlated to successful marketing to consumers that fall in this market no matter where they are. First, an accurate characterisation of BoP individuals as both consumers and producers is required to gain a comprehensive understanding of their needs, perceptions and behaviours. It is common to find that BoP individuals are both consumers and producers of specific goods (food, clothes, shelter.) and therefore the typical separation of production and consumption which is common in developed markets, is not readily apparent in the BoP markets. Rutherford (2001) and Carbonell and Martinez (2007) point out that firms marketing to the BoP need to carefully cultivate perceptions of “partnership and cooperation” rather than “competitive-mercantile” perceptions.

The second key element identified by Franzak, Pitta and Wood (2008) in successfully marketing to the BoP is that MNCs must recognise that marketing to the BoP often requires a different business model than one typically found in more advanced or developed markets. MNC’s must understand the importance of the adaption of a marketing mix that emphasizes function (specific utilities relevant to those of limited means), and identity where products and services are also perceived as a means to a

larger world of cherished values, and not just tied to physical or material well-being (World Bank, 2002).

The BoP poor have few options and few opportunities to exercise options. Their economic status constrains them to pay a BoP penalty, or "poverty penalty", for items they purchase Franzak, Pitta and Wood (2008). They generally do not or cannot travel to locations with better distribution infrastructure, lower prices or product or service alternatives. They are therefore required to purchase from the local village monopolist who holds all the market power. As a result, the consumption experience often leaves the BoP consumer suspicious of business in general and feeling helpless to do anything about it. Furthermore, the typically lower education level of these consumers, and their relatively limited awareness of the "outside" world has led to the BoP consumer segment often being described as viewing global brands as suspicious outsiders to be shunned (Nair & Venkatagiri, 2005).

Despite the rather isolated nature and the low income levels of the BoP segment, these consumers are indeed very brand-conscious, and by necessity, so too are they value-conscious (Prahalad, 2005). This should not come as a surprise as an aspiration to a new and better quality of life is a dream that belongs to everyone regardless of their position in the economic pyramid (Amato et al., 2007).

Gomez-Arias and Subrahmanyan (2008) use the well known 4P framework to examine marketing implications of approaching the BoP segment.

2.4.1 Product

Designing relevant and practical products for the BoP market can be somewhat of a challenge for marketers. Some successful strategies have involved redesigning and adapting existing products (for top of the pyramid consumers) in terms of features, size shape, usage and even price. On the other hand, products may be developed from scratch specifically with the BoP consumer in mind. It is important that all variables that

may affect each specific BoP market are taken into account at product design stage. For example, irregular source of electric power may call for a new design of appliances, or the quality of water may affect how food is cooked or clothes are washed. Gomez-Arias and Subrahmanyan (2008) stated that creative offerings in just about any category that can either enhance productivity or quality of life are needed. This point is illustrated by the way in which Information and Communications Technology have revolutionized the types of products offered to the BoP consumer, for example mobile communications, financial services and health care.

2.4.2 Price

As previously stated, the BoP is largely described based on income levels, and therefore price is a big factor in purchase decisions. However, consumers are willing to pay more for quality if they are easily able to see the relevance of the product and if it will improve productivity and overall way of life. In addition, these consumers may on occasion pay more for aspirational products.

2.4.3 Place

Ensuring product availability to the BoP consumer may be one of the biggest challenges in serving this segment due to poor infrastructure and the fragmented nature of the market. This market requires an appropriate distribution systems for both their own consumption as well as for selling what they produce (Gomez-Arias & Subrahmanyan, 2008).

2.4.4 Promotion

Marketers are faced with many challenges when communicating with consumers in the BoP. These include lower literacy levels, diversity in terms of language and culture, and limited access to conventional advertising media like TV. Billboards and word-of-mouth are effective forms of advertising or promoting in these markets (Gomez-Arias & Subrahmanyan, 2008). Prahalad (2010) concurs and explains that word of mouth among

the BoP consumers is becoming a very strong medium for assessing product quality, prices and options available to them. This is largely driven by the high diffusion of mobile phones in this market which provides this consumer with unprecedented access to information as well as opportunities to engage in dialogue with the larger community.

2.5 Mobile Phone Advertising

Given the rapid rise of mobile phone adoption and ownership, it may be reasonable to expect such phenomenal growth to result in the mobile phone as the global marketer's advertising medium of choice – especially when combined with reported declines in the advertising revenues of established media, notably free-to-air TV (Creamer, 2007). That is to say, it is a 'sleeper' advertising medium, an emerging advertising market with an enormous potential which is still far from being realised (O'Shea, 2007). According to Sinclair and Wilken (2007) the primary cause of the somewhat slow incorporation of mobile advertising can be attributed to 'clunky' technology, slow networks and expensive, complicated pricing structures. Also important to note here are the significant challenges associated with managing unsolicited messages (spam) and overcoming consumer resistance to these advertising appeals (Sainsbury, 2006).

The year 2009 brought about a change in this trend with India and Japan experiencing a large scale uptake of business mobile advertising. Mobile marketing and advertising expenditure in Japan in 2009 was US$1.14 billion (Dentsu, 2011) with year-on-year growth at 12.9%. This has been attributed to the increase in connectivity and the improved coverage of mobile services networks (Kalba, 2008).

"With unmatched reach, interactivity and personalisation capabilities, more than ever before, mobile has a critical role to play in the development and execution of brand marketing campaigns," said Michael O'Hara, chief marketing officer for the GSMA (Global System for Mobile Communication Association, 2010).

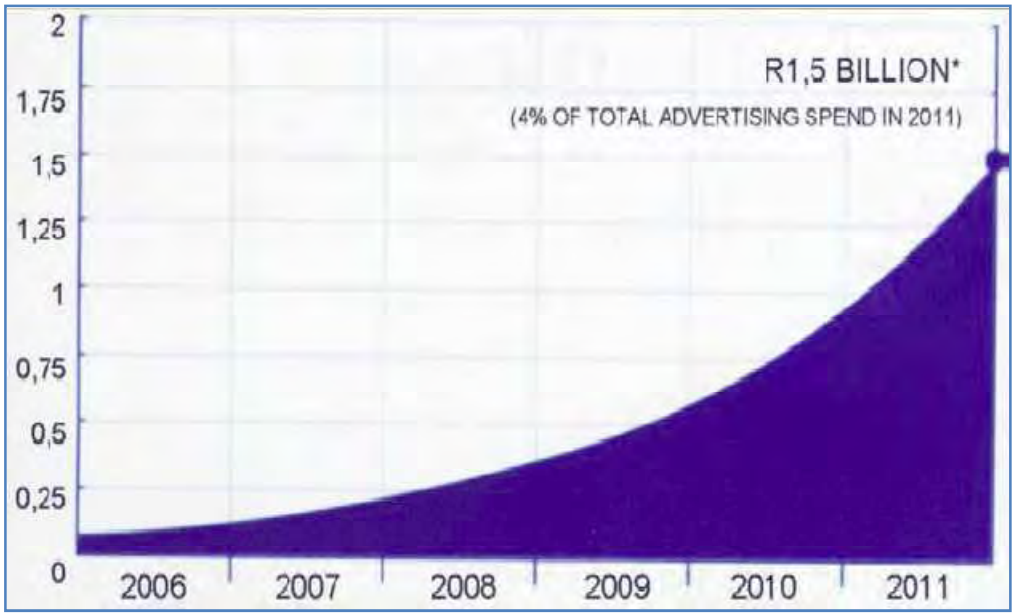
ABI Research (2009) estimates that global expenditure on mobile marketing and advertising in 2009 was $7.5 billion, with forecasts of US$16.3 billion in 2011 and US$21.2 billion in 2012.

Consumer research shows that in UK, France and Germany, 45 percent of consumers noticed mobile advertising and of these, 29 percent responded to it. Of those that responded to the advertisements, in Germany 49 percent, UK 47 percent and in France 22 percent went on to make a purchase. The most effective form of advertising was opt-in SMS. Time sensitive special offers or discounts (especially m-coupons) were most likely to lead to purchase (Mobile Marketing Association, 2010).

2.5.1 South African Context

According to Vodacom , South Africa's largest mobile network operator, mobile advertising in South Africa is gaining ground rapidly as a medium and was almost as large as online (Internet) at the end of 2010. Moreover by 2011, mobile advertising is expected to make up 4% of the total advertising spend reaching a total of R1.5 billion (Naidoo, 2010).

Figure 8: Mobile Advertising Spend. (Naidoo, 2010)



Mobile-centric advertising agencies are delivering more investment into mobile medium (Naidoo, 2010). South Africa's growth in Ad Banners Served by BuzzCity grew 15% to R357 million in quarter one 2010 from R312 million in quarter four 2009 (See figure 9).

Rick Joubert, Head of Mobile Advertising and Social Media at Vodacom, has been quoted as saying that the three largest global mobile advertising networks (AdMob, BuzzCity and mKHOj) serve close to 500 million advertising impressions to South Africa (ITWeb, 2010).

Figure 9: Country Advertising Banners. (BuzzCity, 2010)

Ad Banners Served : BuzzCity Mobile Internet Ad Network

Rank	Country	Q4 09	Q1 2010	Growth
1	Indonesia	2,085,597,751	2,872,072,670	38%
2	India	643,834,263	1,098,092,028	71%
3	United States	301,648,341	465,239,765	54%
4	South Africa	312,241,901	357,935,671	15%
5	Canada	141,976,372	238,857,923	68%
6	United Kingdom	107,093,533	229,424,686	114%
7	Saudi Arabia	192,026,410	162,332,126	-15%
8	Norway	68,448,584	131,098,999	92%
9	Nigeria	85,506,987	125,656,815	47%
10	Malaysia	102,297,063	116,211,205	14%
11	France	63,329,271	109,985,148	74%
12	Bangladesh	61,632,730	91,530,846	49%
13	Germany	60,473,168	86,219,318	43%
14	Mexico	76,250,977	84,499,488	11%
15	New Zealand	56,641,437	84,117,456	49%
16	Australia	49,744,347	78,735,873	58%
17	Argentina	42,462,571	78,558,094	85%
18	Vietnam	27,334,553	72,609,450	166%
19	Egypt	54,057,815	69,883,601	29%
20	Sweden	48,053,121	68,620,116	43%

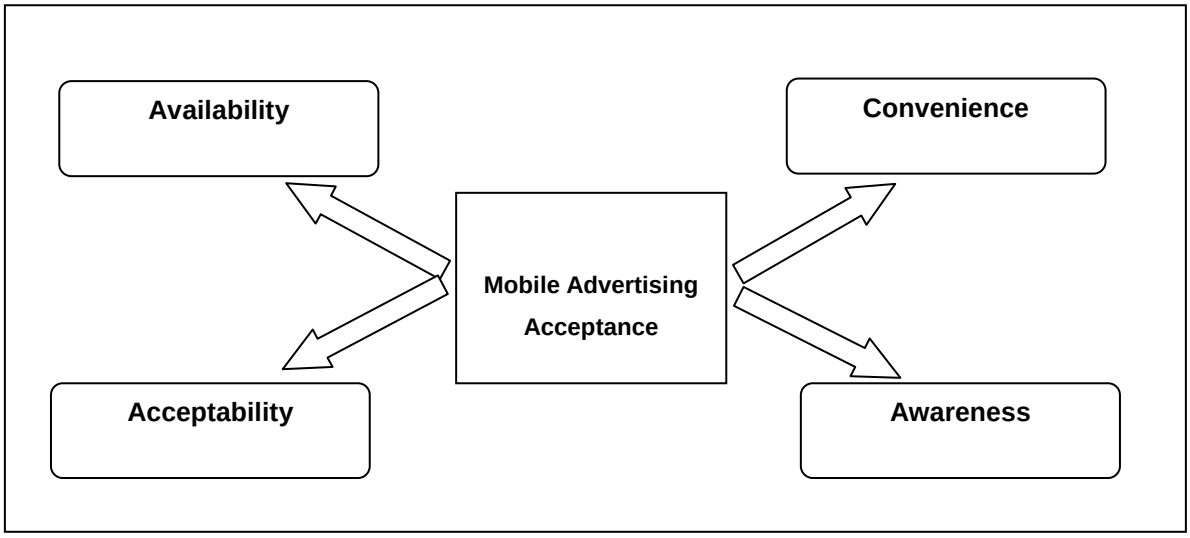
InMobi, formally mKhoj, is now the largest mobile ad network in South Africa. As of quarter four 2009, InMobi had 650 million mobile requests per month in South Africa. This amount alone makes InMobi one of the largest mobile advertising networks in the world (Naidoo, 2010).

3. RESEARCH PROPOSITIONS

The literature review proposes a case for further investigation into the use of mobile phone advertising as an effective medium to reach the South African Urban Bottom of the Pyramid.

Anderson and Billou (2007) 4A's framework provide four areas that business should address when approaching low-income markets. The 4A's model has formed the basis for defining the research constructs, but has been adapted to create the Mobile Marketing Acceptance (MMA) Framework. The MMA framework removes the construct of affordability and replaces it with convenience.

Figure 10: Mobile Marketing Acceptance Framework. (Adapted from Anderson & Van Billou, 2007)



The affordability determinant is not deemed necessary as Rohm and Sultan's 2008 study, How to Market to Generation M(obile), provides empirical evidence that the growing affordability of the mobile advertising platform, in countries similar to South Africa, lead to greater acceptance of mobile marketing practice.

In order to effectively assess the reach of mobile phone advertising to the South African BoP, the following constructs are identified, as indicated in the Mobile Marketing Acceptance Framework;

- Availability
  - Mobile advertising effectiveness can only be determined if the BoP have access to a mobile device
  - Business is actively marketing products and services through mobile advertising.
- Awareness
  - Consumer's ability to understand and interpret the advertising being received via mobile phone.
- Acceptability
  - Acceptance from the consumer that mobile advertising is deemed valuable and unobtrusive.
- Convenience
  - The ability of mobile advertising to create convenience to the consumer through advertising via various mobile phone services
  - The simplicity of developing and distributing the marketing message.

Research Proposition 1: BoP receives mobile advertising from businesses targeting this segment.

This proposition will ascertain if the chosen market receives mobile phone marketing and the consumers recognise the messages in their various forms as company and product advertising.

Research Proposition 2: BoP understands and interpret mobile advertising when received by mobile phone.

BoP consumers identify with mobile advertising and interpret the advertising for its intended purpose. The concept of understanding the advertising through the medium of mobile advertising is important when considering the various forms the advertising can take within the service of mobile phone network operators. For example; an advertisement sponsored Please Call Me message must be understood by the chosen BoP segment as an advertising message and not content of the Please Call Me service.

Research Proposition 3: BoP accepts mobile advertising as valuable within the purchase decision making process.

BoP believes the advertising is useful across the spectrum of decision making criteria. This market wants to be informed of product information and believes the company is taking an active interest in the consumers of this market by providing advertising with a direct focus on the BoP market segment.

Research Proposition 4: BoP want to be informed of *various* product and brand information through mobile advertising.

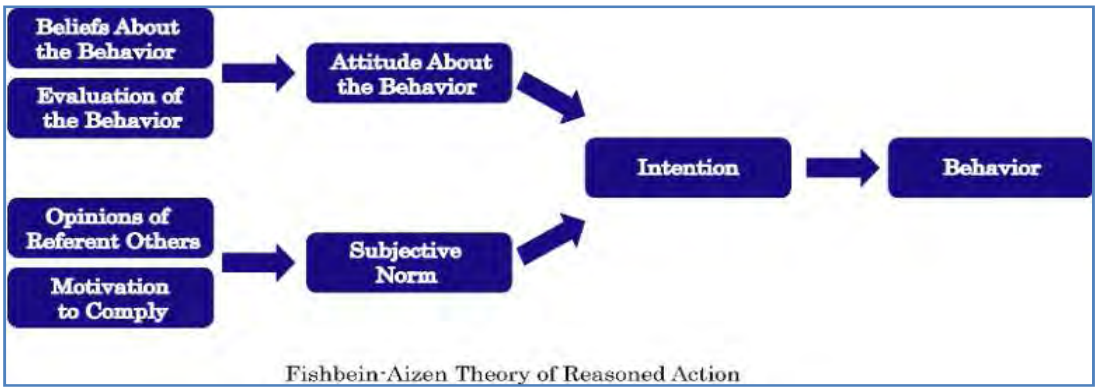
The BoP wants to receive information pertaining to product, price, promotion and place of purchase and not only price or promotion specials. This market wants to receive advertising information relevant to brands they purchase or desire to purchase.

Research Proposition 5: Mobile phone advertising has a strong impact on the product or service decision making process for BoP

The chosen target market wants to receive advertising via mobile phone services including SMS, MMS, Please Call Me and mobile phone games. The BoP assigns value to the sponsorship advertising that enables a lower price service for Please Call Me messages and mobile phone music, ring tones and game downloads.

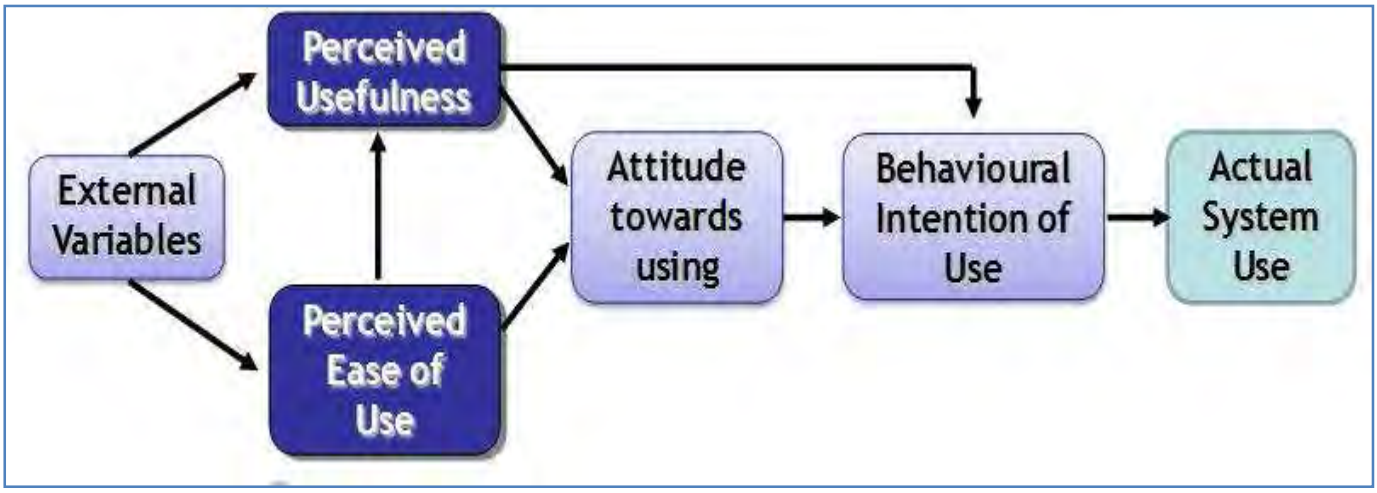
In defining the constructs through the literature review, the Theory of Reasoned Action (TRA) (Ajzen & Fishbein 1980) was assessed for relevance to this research study. The TRA proposes that the use of technology can be predicted by a person's behavioural intention and that this is determined by a person's attitude towards using the technology. A person's attitude is shaped by their positive or negative feelings toward using a specific technology (Ajzen & Fishbein 1980). The TRA has been used extensively in relation to advertising and marketing studies, but the 4A's model was chosen as the basis for the developing the MMA framework. The critique weakness of the TRA is that it focuses on acceptance of technology in relation to marketing and advertising, but as the literature review has shown, mobile phones have readily been accepted by the South African urban BoP.

Figure 11: Theory of Reasoned Action. Iowa State University (2011)



The Technology Acceptance Model (TAM) (Davies, 1989) was also reviewed for relevance in developing the MMA Framework. The TAM is tailored to information systems contexts and is designed to predict IT acceptance. It focuses on perceived usefulness of the technology and perceived ease of use. As with the TRA, the 4A's model was chosen over the TAM as the literature review of Chapter 2 provides empirical evidence that the mobile phone has been accepted by the South African urban BoP as a technology which is provides ease of use and is perceived to be useful.

Figure 12: Technology Acceptance Model. Mark Jowen (2011)



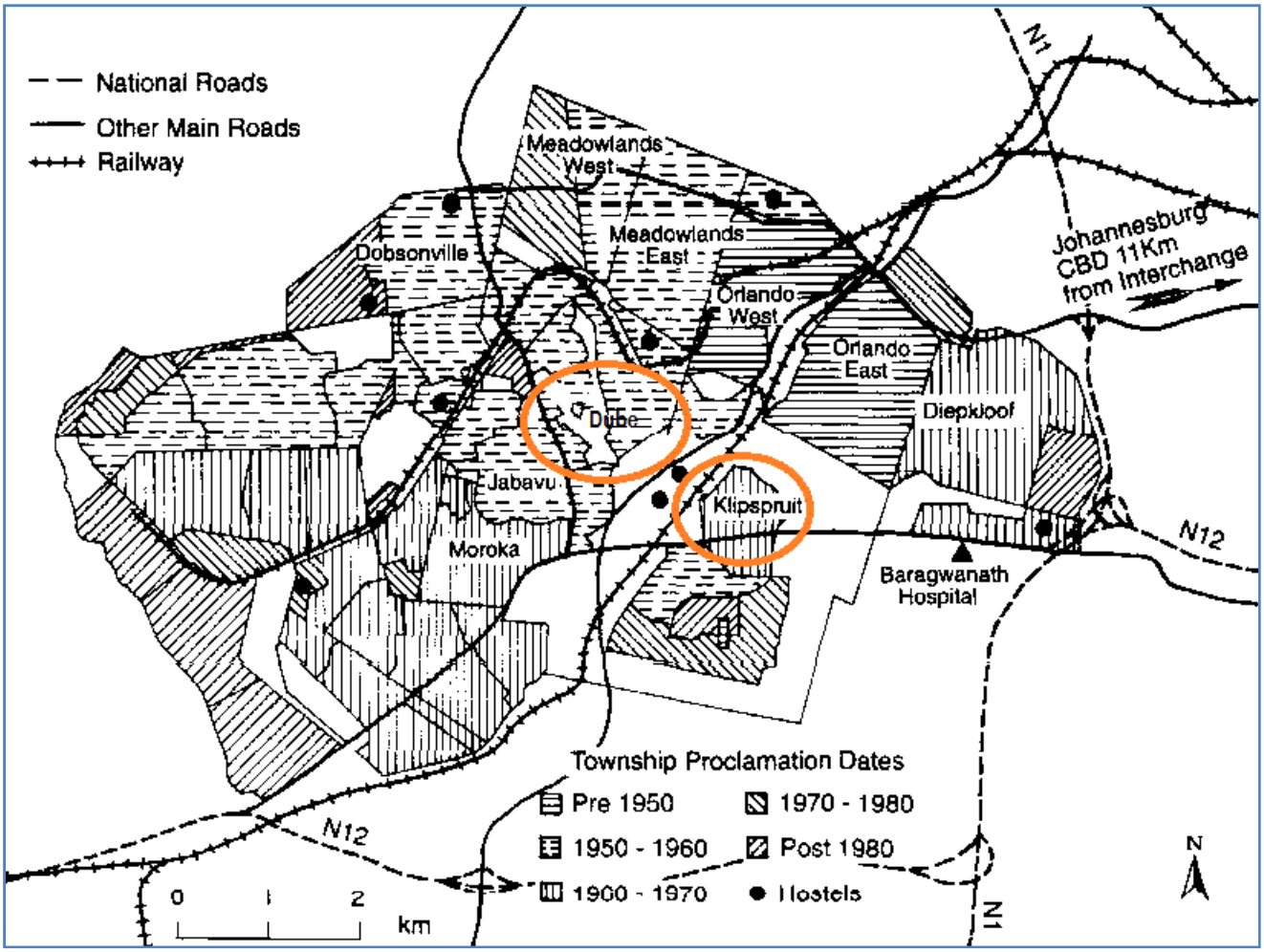
4. RESEARCH METHODOLOGY

4.1 Introduction

The research methodology is based on a quantitative survey conducted in two specifically selected townships within Soweto, a low-income, almost entirely black BoP urban area in Johannesburg, South Africa. Soweto was chosen due to the location convenience and relationships with influential community members within the chosen townships. Soweto is the most populous black urban residential areas in South Africa, with an official population of 1.3 Million people (City of Joburg, 2011) but the unofficial figure places this number closer to 3 million. French researcher, Marc-Antoine Perouse de Monteclos, researched the problem of illegal immigration into South Africa over a period of two years. He found that one in five of the inhabitants of the townships were illegal immigrants (Osman, 2009).

Some companies have started utilising mobile advertising and the research will survey the reach and effectiveness of this advertising vehicle in targeting the BoP.

Figure13: Township map of Soweto. City of Joburg (2011)



4.2 Research Design

The research design is a quantitative study to test the assumptions of the relationship between the constructs of the framework against the dependent variable; acceptance of mobile phone advertising in the South African Urban BoP market. The research follows a descriptive survey that consists of obtaining primary data through a self-administered questionnaire. As explained by Blumberg, Cooper and Schindler (2005), descriptive research will discover answers to the question who, what, when, where and sometimes how. The research will define the subject through creating a profile of a group of problems. The nature of the primary data to be collected will enable statistical analysis to evaluate the relationships, if any, between the dependent and independent variables.

4.3 Population

The population consists of mobile phone users aged 16 years and older that live in the Klipspruit and Dube townships of Soweto. The targeted population covers individuals who have a cell phone, in households that fall in the Foundation tier according to the South African economic pyramid consisting of LSM's 1-4 (Chipp & Corder, 2010).

4.4 Sampling Method and Size

Ideally, a sample is one that creates a perfect representation of a population with all relevant features of a population included in the sample in the same proportions (Zikmund, 2003). This is however very difficult to achieve in practice (Mohamed, 2010, p.38).

Systematic sampling is a versatile form of probability sampling. Using this approach, every k^{th} element in the population is sampled, beginning with a random start of an element in the range of 1 to k (Bloomberg et al., 2005). The systematic sampling methodology was used in conducting the research, where a single point on the first street of each of the localities was randomly chosen, and in a southerly direction, six starting points per locality selected on separate neighbourhood blocks. At each of the starting points, interviews were conducted at that household and then every fourth household within the locality on the left hand side of the starting point. In the event that the household failed to have a mobile phone user, the next house to the left was approached.

From each starting point, ten questionnaires were administered thereby obtaining 60 questionnaires per locality. A total of 120 questionnaires were administered.

Figure 14: Proposed Dube Interview Sites. (WikiMapia, 2011).

Figure 15: Proposed Klipspruit Survey Sites. (WikiMapia, 2011).

The use of random number tables was investigated as a technique of random sampling houses in the selected streets. The lack of house and ERF numbers made this technique unusable.

4.4.1 Kish Grid

When selecting household respondents, the Kish grid method was used to sample individuals from the sample households. This technique involves constructing a list of eligible individuals at a particular address, ordered by age, and then selecting according to the serial number of the address itself (Audience Dialogue, 2010). The system is devised so that all individuals in a household have an equal chance of selection. The technique involves following simple rules for selecting a single person to interview from among household residents;

1. Find out how many people living in the household are eligible to be interviewed. Include people who spend four nights a week there, but are not there when you visit. Children under the age of 16 are to be excluded
2. The youngest (excluding children under 16) is number one, the second youngest is number two, and so on.
3. The first household where you do an interview is household one, the second is household two, and so on, up to household 60 - the last in the cluster.
4. Look up the column for the household number and the row for the number of eligible people. The number in the cell where the column and row meet is the person to interview. For example, if household two has three qualifying adults, interview the 2nd youngest (shown in bold type). If that person is not there during the interview time, the next oldest person will be selected.

Table 1: Sample Individuals per Sample Household

| Eligible | Household | | |

4.5 Unit of Analysis

The unit of analysis in this study is defined as individual mobile phone users that form part of the identified population.

4.6 Questionnaire Design

The questionnaire was designed to test the research propositions as described in Chapter 2. The questionnaire is divided into five sections. Section 1 obtains the demographic details and tests if the interviewee is part of Urban BoP. Sections two to four test the constructs of the MAA Framework, and section 5 tests the adoption and acceptance of mobile phone advertising.

4.7 Data Collection

A face-to-face method of surveying was conducted through carefully selected interviewers. Interviewers were selected based on three criteria;

- Fluency in English and Xhosa
- Perceived honesty and integrity
- Friendly and approachable personality

Fluency in the local vernacular is important to ensure that the questions are communicated effectively and no ambiguity exists in terms of the meaning related to the questions.

The interviewers were provided a four hour questionnaire briefing and training seminar to familiarize them with the study and the purpose of the study. The training enabled the interviewers to elaborate on any of the questions in the questionnaire which the respondents may not have understood. The training also included a detailed description of the sampling method, as well as practical scenarios on the use of the Kish Grid.

Each interviewer participated in a role play of the questionnaire.

The survey provided a cost effective and efficient way of collecting data from the identified population.

4.8 Data Analysis

4.8.1 Chi-Squared Distribution

The chi-squared distribution with k degrees of freedom is the distribution of a sum of the squares of k independent standard normal random variables. It is one of the most widely used probability distributions in inferential statistics - in hypothesis testing or in construction of confidence intervals. The chi-squared distribution is used in the common chi-square tests for goodness of fit of an observed distribution to a theoretical one, the independence of two criteria of classification of qualitative data, and in confidence interval estimation for a population standard deviation of a normal distribution from a sample standard deviation (Sanders, 2006).

Chi-square is used to compare observed data with the expected data obtained according to the specific proposition. The deviations will be explained through the factors causing the observed to differ from the expected. The chi-square test is always testing null hypothesis**,** which states that there is no significant difference between the expected and observed result (Sanders, 2006)

The formula for calculating chi-square;

$$X^2 = \sum \frac{(\text{Observed frequencies} - \text{Expected frequencies})^2}{\text{Expected frequencies}}$$

$$= \sum \frac{(Fo - Fe)^2}{Fe}$$

Chi-square is the sum of the squared difference between observed (*o*) and the expected (*e*) data (or the deviation, *d*), divided by the expected data in all possible categories (Sanders, 2006)

4.8.2 Frequency Distribution

A frequency distribution is an arrangement of the values that one or more variables take in a sample. Each entry in the table contains the frequency or count of the occurrences of values within a particular group or interval, and in this way, the table summarizes the distribution of values in the sample (Stat Trek, 2011).

A frequency distribution shows a summarized grouping of data divided into mutually exclusive classes and the number of occurrences in a class. It is a way of showing unorganized data in a more manageable fashion to enable further data analysis, such as median, mean and measures of variability.

4.8.3 Cluster Analysis

Cluster analysis is an exploratory data analysis tool which aims at sorting different objects into groups in a way that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise. Cluster analysis is an interdependence technique which makes no distinction between dependent and independent variables. The entire set of interdependent relationships is examined. (Sheppard, 2006). Clustering examines inter-object similarity by examining the complete set of interdependent relationships. It difference from multi-dimensional scaling in that cluster analysis ideintifies clusters, while multi-dimensional scaling identifies underlying dimensions. Cluster analysis reduces the number of observations or cases by grouping them into a smaller set of clusters. (Sheppard, 2006)

A table of relative similarities or differences is created between all objects and this information is used to combine the objects into groups. The table of relative similarities is called a proximities matrix. The method of combining objects into groups is called a clustering algorithm. Objects that are similar to one another will be combined into separate groups.

The purpose of cluster analysis is to discover a system of organizing observations into groups. Members of the groups share properties in common (Stockburger, 1998)

4.8.4 Factor Analysis (Eigenvalues)

Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved, uncorrelated variables called factors (Stat Trek, 2011). Factor analysis is a correlation technique to determine meaningful clusters of shared variance. Factor analysis begins with a large number of variables and then tries to reduce the interrelationships amongst the variables to a few numbers of clusters or factors. Relationships or natural connections are found where variables are maximally correlated with one another and minimally correlated with other variables.

The purpose of factor analysis is to discover simple patterns in the pattern of relationships among the variables. In particular, it seeks to discover if the observed variables can be explained largely or entirely in terms of a much smaller number of variables called factors.

The analysis will isolate the underlying factors that explain the data, examining a complete set of interdependent relationships. There is no specification of dependent variables, independent variables, or causality. All the rating data on different attributes will be reduced to two important dimensions. This reduction is possible because the attributes are related. The rating given to any one attribute is partially the result of the influence of other attributes.

4.8.5 ANOVA

Analysis of variance (ANOVA) is a statistical analysis tool that separates the total variability found within a data set into two components: random and systematic factors. The random factors do not have any statistical influence on the given data set, while the systematic factors do. The ANOVA test is used to determine the impact independent variables have on the dependent variable in a regression analysis (Investopedia, 2011).

ANOVA tests for significant differences between means. ANOVA is a general technique that can be used to test the hypothesis that the means among two or more groups are equal, under the assumption that the sampled populations are normally distributed.

The ANOVA test will identify factors that are influencing the data set, through determining the degree of difference or similarity between the means of the data set. The test will determine whether a significant relation exists between the variables.

4.9 Research Limitations

The research was conducted in two of the smaller townships in Soweto, focusing only on the urban areas and excluding rural and semi-rural sectors of South Africa. The research was also focused only on a specific geographic location as opposed to the entire country. In order to obtain country wide results of both urban and rural respondents, probability sampling would be the favoured technique, obtaining a more comprehensive population sample.

The question 13 from the questionnaire (See Appendix 2: Questionnaire) proved somewhat confusing to many of the respondents. Although best attempts were made to ensure questions could easily be explained by the interviewer fluent in the local vernacular, the questions would have proved more effective in providing data results should they had been

worded more simply. Misunderstood question bias where words and sentences cause misunderstanding possibly occurred by certain respondents to question 13.

Consistency Bias, where respondents try to appear consistent in their answers (Ercan, Ocakoglu, Sigirli & Yazici, 2007) may have occurred given the similarity between the questions which tested actual versus preferred mobile phone advertising variables. Previous answers could have influenced answers to later questions.

Interviewer bias, where the opinion or prejudice on the part of an interviewer is displayed during the interview process, affects the outcome of the interview (Ercan et al., 2007). Although a rigorous selection process was undertaken in selecting the interviewers, the possibility of interviewer bias does exist where respondents could have been coaxed into answers questions.

5. RESULTS

5.1 Mobile Phone Advertising to BoP

The aim of this research was to investigate the use of mobile phone advertising as an effective medium to market to the South African urban BoP

In order to be an effective medium for advertising to the urban BoP, the constructs of Availability, Awareness, Acceptability and Convenience were measured according to a list of questions presented in **Error! Reference source not found.**

5.2 Construct Analysis

Data analysis of the constructs is provided in relation to their associated propositions;

5.2.1 Availability

Research Proposition 1 : BoP receives mobile advertising from businesses targeting this segment.

An overwhelming 92% of respondents confirmed receiving advertising messages via mobile phones. This provides strong evidence that business is utilising mobile phone adverting to target the BoP but does not provide any measure of effectiveness.

Table 2: Receipt of Mobile Phone Advertising

Frequency table: Mobile advertising received

N=120 valid responses

	Count	Percent	Chi-square	Significance Level
Yes	111	93%	10.65	93%
No	9	7%		7%

Chi-square results indicate the level of independence and significance between the observed and expected responses.

Investigating the occurrence of mobile phone advertising, respondents were asked to recall when last they had received advertising via their mobile phone.

One person from every three confirmed receipt of mobile phone advertising in the last 24 hours. More than half the respondents want to receive mobile advertising on a weekly basis, a small percentage within two weeks , and slightly more than one fifth of respondents prefer mobile advertising to be received only monthly.

Table 3: Frequency of Mobile Phone Advertising

Frequency table: Last received mobile advertising

N=114 valid responses

	Count	Percent
24 hours	38	34%
3 days	19	17%
one week	15	14%
two weeks	14	12%
month or longer	25	23%

One month or longer is the second highest occurrence with three days, one week and two weeks following in terms of measures of advertising receipt.

5.2.2 Awareness

Research Proposition 2: BoP has a high recall of advertising for products and services received by mobile phone advertising

The majority of the respondents recalled the products or services the mobile phone advertising communicated. The figure of 73% is higher then the 50% expected result and this chi-square significance level of 0.001 confirms this.

Table 4: Mobile Phone Advertising Product or Service Recall

Frequency table: Recall product or service received

N=118 valid responses

	Count	Percent	Chi-square	Significance Level
Yes	86	73%	23.665	0.001
No	32	27%		

Chi-square results indicate the level of independence and significance between the observed and expected responses.

Further analysis of the respondents who confirmed recall of mobile phone advertising, was completed to identify the advertising message being most received. Competitions are the highest being received by one third of respondents with promotions second, receiving 28% of the responses. Special price and new product collectively made another third of the responses and place to purchase was last on the recall list.

Table 5: Mobile Phone Advertising Message Recall

Frequency Table : Recall of Advertising Messages		
Total Responses	143	
Breakdown of Responses		
Special price	25	17%
New product	18	13%
Competition	47	33%
Promotion	40	28%
Place to purchase	13	9%

**Duplication occurs*

With more than 30% of the responses for competitions, there is support that business is focusing their mobile advertising campaigns towards chance marketing.

5.2.3 Acceptability

Research Proposition 3: BoP accepts mobile advertising as valuable within the purchase decision making process.

Table 6 details the data analysis providing evidence that the respondents would like to receive mobile phone advertising, with little more than a third of respondents stating they would not like to receive mobile phone advertising. Although the positive result is relatively close to the 50% expected result, chi-square significance level of 0.001 is statistically significant.

Table 6: Urban BoP preference for Receipt of Mobile Phone Advertising

Frequency table: Receive advertising

N=119 Valid Responses

	Count	Percent	Chi-square	Significance Level
Want	75	63%	9.364	0.001
Don't want	44	37%		

Chi-square results indicate the level of independence and significance between the observed and expected responses.

Acceptability of mobile phone advertising was measured based on the response as being positive, measured in the frequency of receiving advertising messages, or negative as never receiving mobile phone advertising.

Table 7: Urban BoP Preference for Frequency of Receipt of Mobile Phone Advertising

Frequency Table : Preference for Receipt of Mobile Phone Advertising		
Total Responses	119	
Breakdown of Responses		
Never	44	37.0
Daily	12	10.1
Twice a week	13	10.9
Weekly	20	16.8
Monthly	30	25.2

**Duplication occurs*

Analysis of the responses to the questions of when respondents would like to receive mobile phone advertising clearly show that almost two thirds of respondents would like to receive mobile phone advertising, with a quarter of respondents electing to only receive mobile phone advertising on a monthly basis.

Research Proposition 4: BoP BoP want to be informed of *various* product and brand information through mobile advertising.

Respondents indicated that special price and new products were the most sought after information

Table 8: Urban BoP Preference for Mobile Phone Advertising Messages

Frequency Table : Preference of Mobile Phone Advertising Messages		
Total Responses	292	
Breakdown of Responses		
Special price	76	26%
New product	64	22%
Competition	54	19%
Promotion	54	19%
Place to purchase	44	15%

**Duplication occurs*

Competition and promotion received the same number of responses while place to purchase was 4% lower as the least sought after information from mobile phone advertising.

The mobile phone service respondents favoured for receipt of mobile advertising indicated SMS and Please Call Me services as the highest ranked, with a combined rating of 68%. MMS and voice mail Mmessages, third and fourth respectively with slightly more than one quarter of the responses. Downloading of games and ring tones emerged as the least favoured, but only 1% less then voice mail messages.

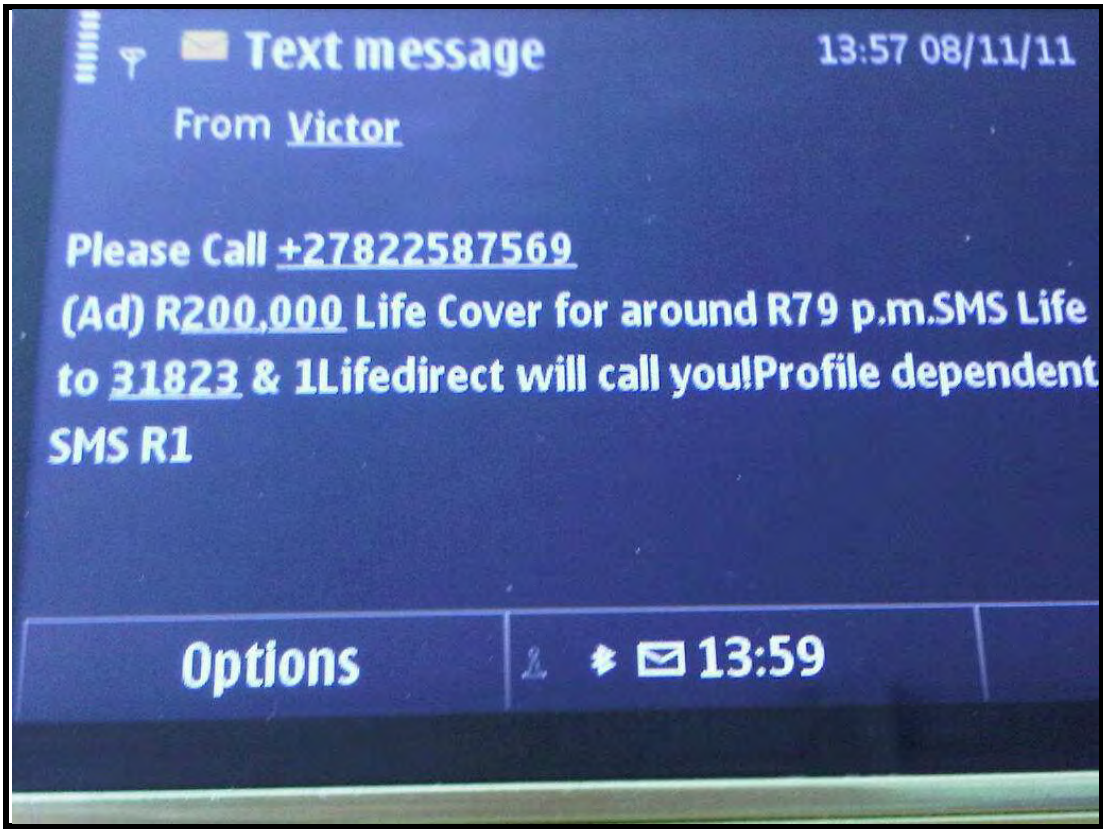
Table 9: Urban BoP Preference of Mobile Phone Service for Receipt of Advertising

Frequency Table :Preference of Mobile Phone Service for Receipt of Advertising		
Total Responses	208	
Breakdown of Responses		
SMS	85	41%
Please Call Me	57	27%
MSM	39	19%
Voice Mail Message	14	7%
Cell phone games/ Ring tones	13	6%

**Duplication occurs*

Please Call Me service is a unique, free service aimed at prepaid cellphone users who are able to receive incoming calls, but have run out of airtime to make a call themselves. It works by sending out a SMS requesting the recipient to "Please Call Me", followed by the sender's mobile phone number. If the recipient is willing, he or she will call you back. (Vodaworld, 2011).

Figure 16: Please call me text message



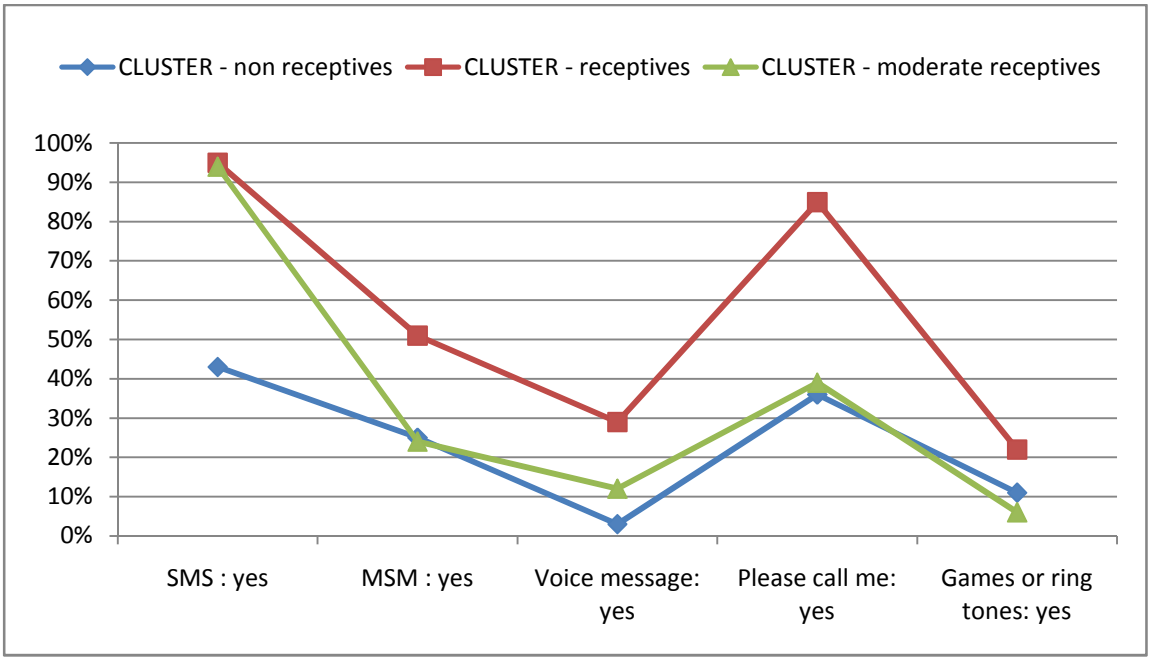
Mobile phone services through which respondents want to receive mobile phone advertising were grouped through the use of cluster analysis statistics. The clusters are categorised by the number of selections per option each respondent selected, based on the mobile phone service or services selected. The cluster analysis groups respondents into the three categories below:

- Receptive Respondents
- Moderately Receptive Respondents
- Non-Receptive Respondents

Table 10: Stub-and Banner Table Mobile Phone Service for Receipt of Mobile Phone Advertising

		Receptives	Moderate Receptives	Non Receptives
SMS : yes	1	95%	94%	43%
MSM : yes	3	51%	24%	25%
Voice message: yes	5	29%	12%	3%
Please call me: yes	2	85%	39%	36%
Games or ring tones: yes	4	22%	6%	11%

Graph1: Cluster Analysis Mobile Phone Service for Receipt of Mobile Phone Advertising



From Graph 1, it is clear that the SMS service and the Please Call Me service are the highest selected for the all 3 groups. The pattern of the graphs is almost identical indicating similar preferences of mobile phone service in receipting mobile phone advertising.

ANOVA test shows statistically significant difference between the three groups

Table 11: Cluster Means

	Receptives	**Moderate Receptives**	**Non Receptives**
Special price	1.00	0.50	0.41
New product	0.82	0.22	0.51
Competition	0.66	1.00	0.00
Promotion	0.92	0.22	0.19
Place to purchase	0.97	0.11	0.05

Table 12: Cluster Analysis of Variance

	Between - SS	**DF**	**Within - SS**	**DF**	**F**	**Significance - P**
Special price	7.24775	2	13.41892	90	24.3051	0
New product	4.58028	2	18.06488	90	11.4096	0.000038
Competition	14.56565	2	8.55263	90	76.6377	0
Promotion	11.69737	2	11.54994	90	45.5744	0
Place to purchase	18.28138	2	4.64335	90	177.1698	0

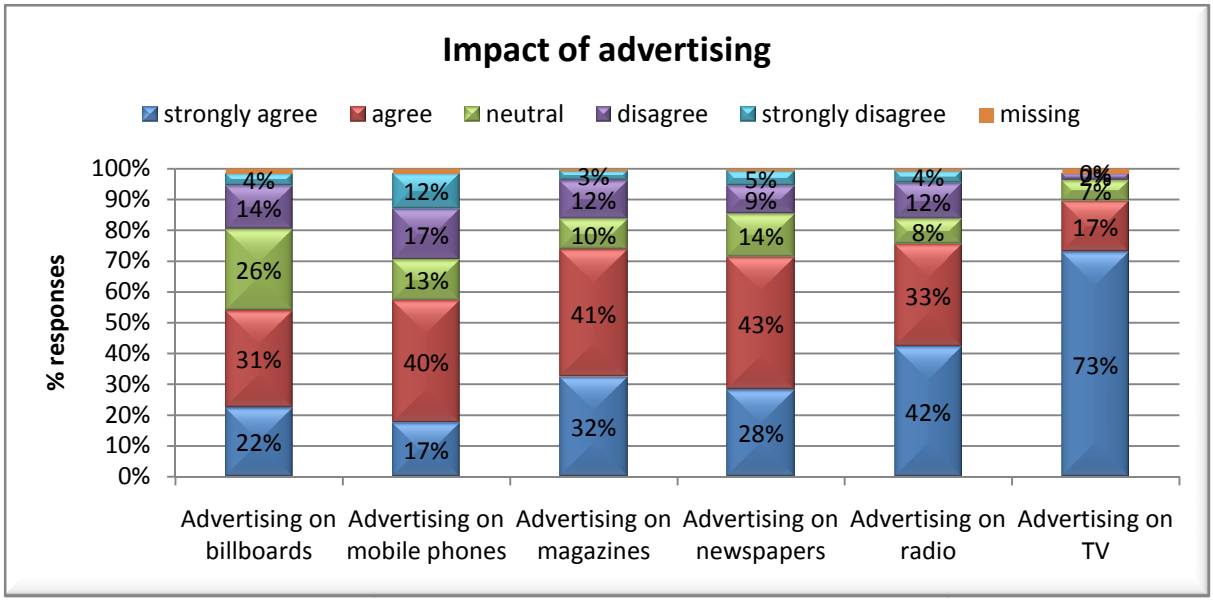
P<0.01 confirms statistical significance.

5.2.4 Convenience Measure

Research Proposition 5 : Mobile advertising has a strong impact on the product or service purchase decision making process for BoP

More than half of the respondents confirmed that all media types questioned, namely; billboards, magazines, mobile phones, newspapers, radio and TV, have a positive impact on the purchase decision making process.

Graph 2: BoP impact of advertising via various advertising media



TV proved the most influential with a high 90% confirmation and surprising billboards the least influential with 53% Mobile phones, while ahead of billboards, received almost one fifth less than the traditional media types – which all scored high.

Unlike mobile phones, the other media types are all well established and received very low disagree scores on the impact of advertising on purchase decision making. Mobile phones were double the next lowest score, being magazines. This is attributed to the relative newness of the technology and mobile phone advertising which is in its infancy stage.

Rating of advertising impact on purchase decision making per media type;

1. Television
2. Radio
3. Magazines
4. Newspapers
5. Mobile Phone
6. Billboards

Factor analysis, using the principal component extraction method and varimax orthogonal rotation, was used to analyse the inter correlations of the six advertising media type variables in order to identify the underlying dimensions or factors. Based on Kaiser's (1960) criterion that a factor must extract at least as much variance from the variables as one original variable, in other words, eigenvalues of at least 1 (Table 14), two factors were retained. This decision was further supported by the scree plot of the eigenvalues. In total, these two factors explained 52% of the total variance in the six advertising media type variables.

Furthermore, based on the factor loadings or correlations between the advertising media types and the factors, the factors were named as follows: Mobility Media comprising of billboards and mobile phones, and Self Selective Traditional Media, comprising of television, radio, magazines and newspapers.

Table 13: Factor Loading Self Service Traditional Media and Mobility Media

	Self Selective Traditional Media	**Mobility Media**
Advertising on billboards	-0.006	0.785
Advertising on mobile phones	0.006	0.769
Advertising on magazines	0.714	-0.067
Advertising on newspapers	0.705	-0.106
Advertising on radio	0.670	0.091
Advertising on TV	0.649	0.142
Expl.Var	1.876	1.252
Prp.Totl	0.313	0.209

From Table 13 it can be seen that Self Service Traditional Media measures correlate with the same factor, as do Mobility Media measures, but these are minimally correlated to Self Service Traditional Media and therefore separate factors.

Graph 3: Plot of Eigenvalues

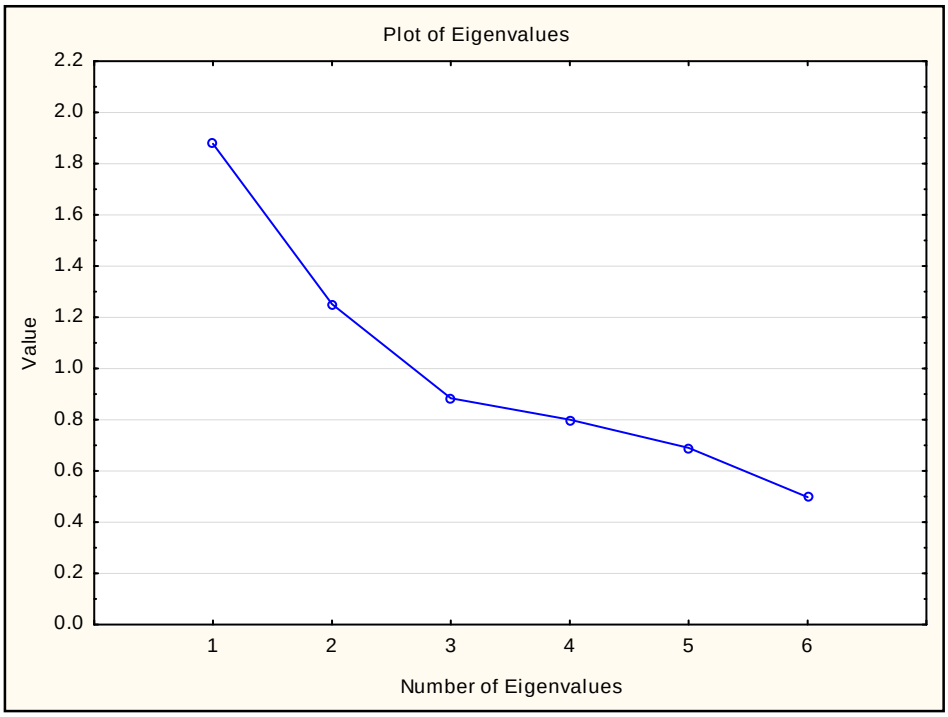


Table 14: Eigenvalues Principal Components

	Eigenvalue	% Total variance	Cumulative Eigenvalue	Cumulative %
Self Selective Traditional Media	1.87	31%	1.87	31%
Mobility Media	1.25	21%	3.13	52%

Variance experienced : Self Service Traditional Media 52%

Variance experienced : Mobility Media 31%

The respondents were categorised by a median split on their Self Selective Traditional Media scores into 'low on Self Selective Traditional Media' and 'high on Self Selective Traditional Media' and compared to see if they had different attitudes to receiving mobile advertising (Table 15). A chi-square analysis revealed no significant difference between their preferences.

Chi-square(4)=0.897, p>0.05)

Table 15: Low and high Self Selective Traditional Media receiving mobile advertising

	Receive mobile advertising					
Self Selective Traditional Media	daily	twice a week	weekly	monthly	never	Row - Totals
low on Traditional Media	22	13	11	6	6	58
high on Traditional Media	20	17	9	7	6	59
Total	42	30	20	13	12	117

However, when respondents were categorised by a median split on their Mobility Media scores into 'low on Mobility Media' and 'high on Mobility Media' and compared to see if they had different attitudes to receiving mobile advertising (Table 16). A chi-square analysis did reveal significant difference between their preferences, with more respondents who claimed their purchasing decisions were highly influenced by mobile media wanting advertising more often than those that scored low on mobility media. Specifically, over half (53%) of the respondents in the high mobility media group want mobile advertising daily, compared to 19% in the low mobility media group.

Chi-square(4)= 19.9270, p<0.001

Table 16: Low and high Mobile Media receiving mobile advertising

	Receive advertising					
Mobility Media	daily	twice a week	weekly	monthly	never	Row Totals
low on Mobility Media	11	15	15	7	10	58
	18.97%	25.86%	25.86%	12.07%	17.24%	
high on Mobility Media	31	15	5	6	2	59
	52.54%	25.42%	8.47%	10.17%	3.39%	
Total	42	30	20	13	12	117

6. CHAPTER 6: DISCUSSION OF RESULTS

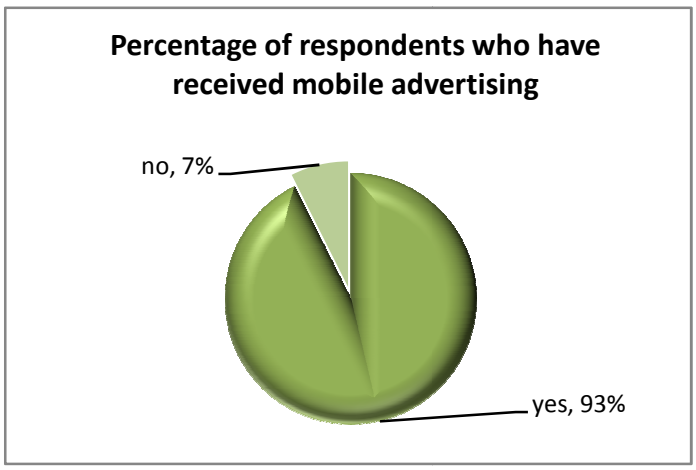
6.1 Research Proposition 1: Availability

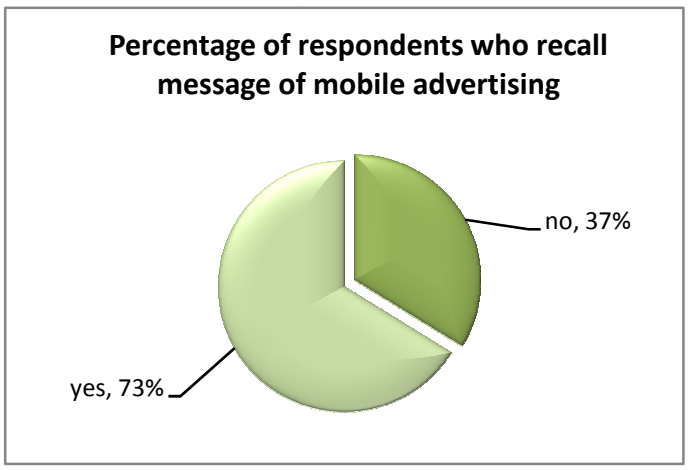
The first proposition investigates whether the BoP receive mobile advertising from business in order to establish if this medium of advertising is being utilised, and to further research the effectiveness of this medium when targeting the BoP. Business can only benefit from an advertising campaign if the target market receives the advertising message through the designated advertising channel. This is of more importance when considering mobile advertising as the entire advertising message is lost if there is no delivery service being received by the recipients. Availability proposition tests whether mobile advertising is being used to target the BoP and also the extent of mobile advertising to BoP.

6.1.1 Discussion of findings on Proposition 1: BoP receives mobile advertising from businesses targeting this segment.

The ubiquitous nature of mobile phones makes them an ideal advertising vehicle (Amato et al., 2007). This statement is confirmed by the fact that 93% of respondents confirmed receiving mobile phone advertising, of these, three quarters of respondents could recall the advertising message.

Chart 1 and 2: Respondents Receiving Mobile Phone Advertising and Advertising Message Recall





The result was higher than expected where a 50% receipt was utilised for the chi-square calculations. This indicates that business have acknowledged the potential strength and relevance of mobile as an advertising medium.

The high percentage of respondents confirming receipt of mobile advertising provides evidence of business targeting BoP via this medium. This increased use of mobile advertising by business results in advertising agencies providing greater investment into mobile media through technology and the advertising service offerings, confirming that mobile-centric advertising agencies are delivering more investment into the mobile medium (Naidoo, 2010). It has not been ascertained how business is managing their media investment; are they simply reallocating funds between various media types, or are they continuing to spend similar levels on more traditional media and increasing their advertising budgets to allow for mobile advertising investment? This is a suggested area for further research.

Further evidence supports the proposition as respondents confirm regular receipt of mobile advertising messages. Refer to the Results section 5.2.1, providing the frequency analysis. One third of respondents confirmed receiving mobile advertising on a daily basis, showing the increased focus business is placing on advertising through this media.

In quarter four 2009, InMobi had 650 million mobile requests per month in South Africa. (Naidoo, 2010). The number of mobile requests on the advertising service provider is consistent with the results of the propositions, showing a high frequency of mobile advertising to BoP.

6.2 Research Proposition 2: Awareness

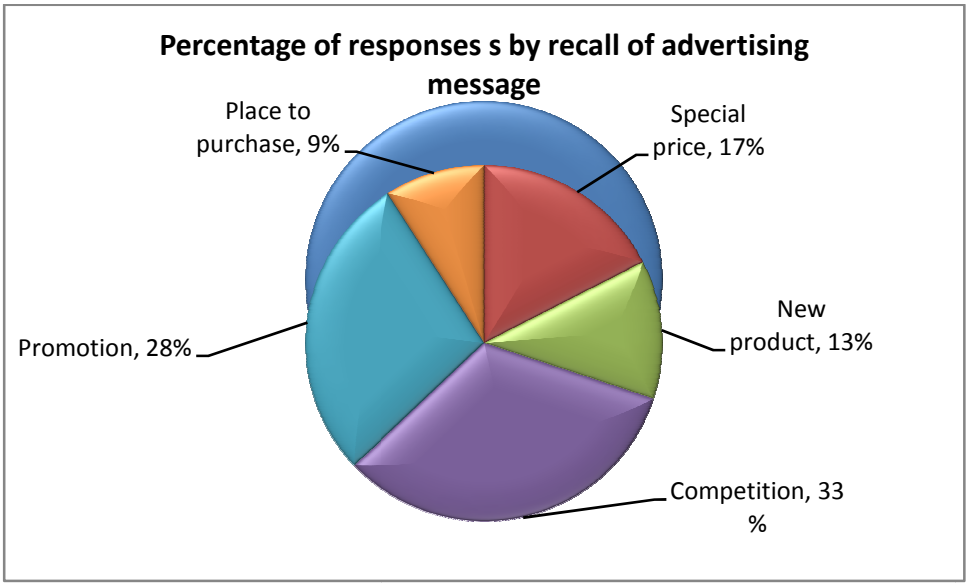
The second proposition investigates consumer's recall of advertising message and whether this recall relates to understanding. This proposition also investigates the advertising messages being sent and the recall of these messages by mobile phone users. Investigating the messages being sent via mobile phone advertising will provide an indication of the advertising business deems import to the BoP.

6.2.1 Discussion of findings on Proposition 2: BoP understands and interprets mobile advertising when received by mobile phone.

The proposition investigated the mobile advertising recipients' ability to recall the advertising and its related advertising message.

The Frequency Table (see Research Section 5.2.2) indicates 73% of respondents could recall the product or service the advertisement was promoting. The chart below provides an evaluation of the advertising message type and indicates the advertising messages to be concentrated around competitions and promotions.

Chart 3: Respondents Recall of Mobile Phone Advertising Message



73% recall of the product or service advertised is a high result. Affective advertising can be processed effectively at relatively low levels of attention and as a result does not always perform well on recall measures. Claimed advertising awareness seriously underestimates the effectiveness of advertising (Heath & Nairn, 2005). Recall is on average lower for other advertising channels because the consumer can very easily tune out once a TV or radio commercial is aired. However, with mobile phone advertising, the consumer personally engages with the message. Business implications are that mobile phone advertising has the potential to deliver much better product recall, a key advertising measure for the industry, than other media vehicles. Suggestion for further study is to compare the recall results for mobile phone advertising versus other channels in order to validate this assumption.

Despite the low income levels of the BoP segment, these consumers are indeed very brand-conscious, and by necessity, so too are they value-conscious (Prahalad, 2005). This is confirmed by the three highest results for the advertising message all relating to messages designed to advise consumers of a benefit factor which can be perceived by BoP as a direct saving or in the case of competitions, obtaining something for free through winning the competition.

The advertising message with the highest recall is Competitions with one third of respondents claiming to have received this type of advertising message. Business is using the competitions as a means to encourage potential purchasers through the attraction of winning a prize. In turn, they are able to build brand awareness and drive sales as these competitions are usually related to a product or service purchase. It could be construed that businesses are of the belief that this target is strongly attracted to the fact they could receive a reward for the purchase of the product or service.

Promotions are the second highest advertising message with 28% of the total count. Business targets the BoP with promotional items such as two for one specials or product bundling as a means to drive sales and market share.

Special price advertisements were the third most common message received. These would include price discounts of various natures.

New products and place to purchase are advertising messages seldom received, confirmed by Results Section 5.2.2

However, as per SadreGhazi (2008), the location and under-developed infrastructure of low income consumer markets makes it difficult for these consumers to access a variety of products and services. Therefore, business should consider including New Product and Place to Purchase advertising messages within their mobile marketing advertising campaigns

6.3 Research Proposition 3 and 4: Acceptability

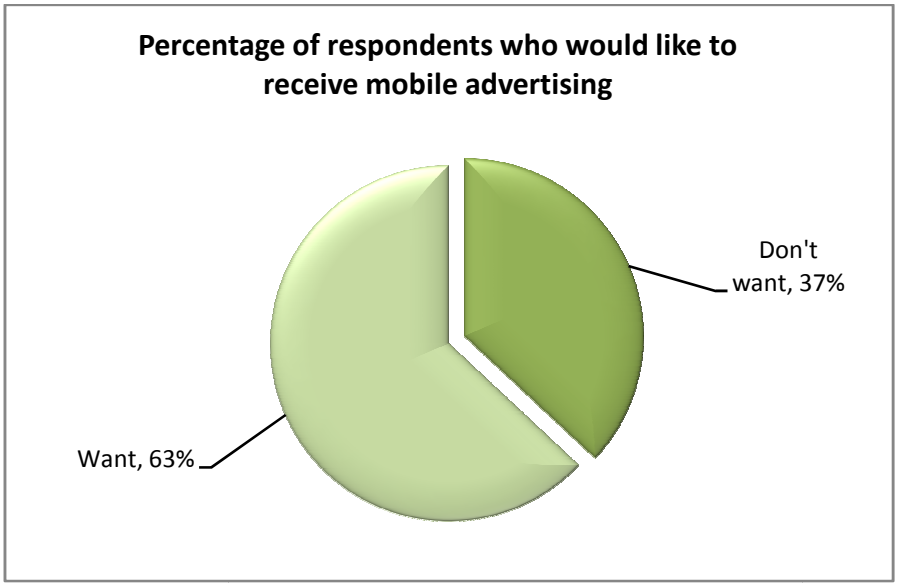
Propositions three and four test the acceptance of mobile phone advertising by BoP and further investigates the product or service information this market would like to receive. The information contained in the advertising message which the BoP want is compared to the information business is currently sending via mobile phone advertising.

6.3.1 Discussion of findings on Proposition 3: BoP accepts mobile advertising as valuable within the purchase decision making process.

Results Section 5.2.3 show that the BoP consumers find mobile marketing a useful source of information related to product or service choice, and a medium through which they would like to receive advertising. They have limited access to conventional media like TV, so word of mouth has become an effective form of advertising and promoting to these consumers (Gomez-Arias & Subrahmanyan, 2008). Furthermore, Prahalad (2010) explains that word of mouth among the BoP is becoming a very strong medium for accessing product quality, prices and other options available to them. This has been largely driven by the high diffusion of mobile phones which provides this consumer with unprecedented access to information as well as opportunities to engage in dialogue with the larger community.

Although Chart 4 indicates a positive result with regards to respondents who would like to receive mobile advertising, the fact that the number was only in the third quartile could suggest that mobile phone advertising requires greater momentum to achieve increased acceptance as a means to providing value to the purchase decision making process.

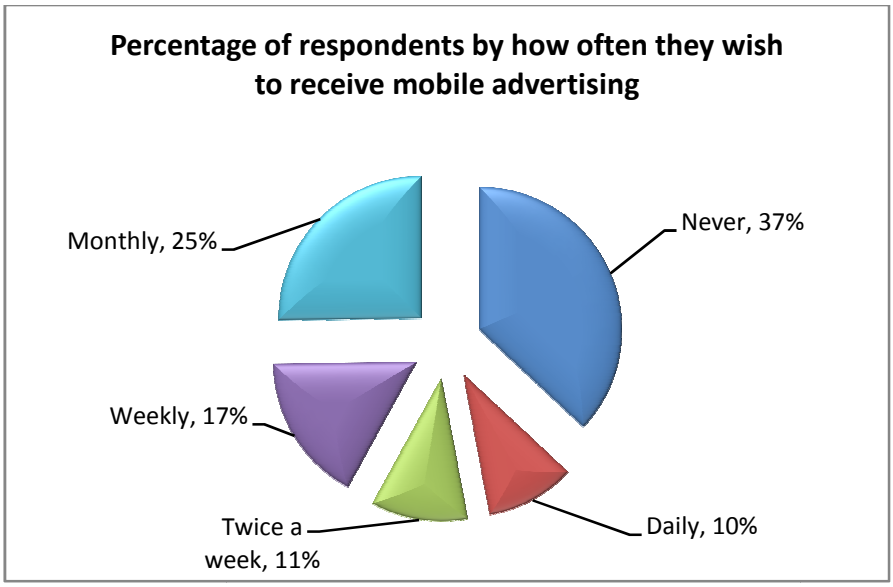
Chart 4: Respondents wanting to Receive Mobile Phone Advertising



A large variance is evident between consumers who receive mobile phone advertising, 72%, and consumers who want to receive mobile phone advertising, 63%. This may indicate that there are a fair number of consumers who are receiving content that they don't want. If this is indeed true then these consumers will in all likelihood have a negative perception of mobile phone advertising and will automatically say that they don't want to receive it in the future. Managing unsolicited messages (spam) and overcoming the consumer resistance to these advertising appeals are some of the reasons behind the slow incorporation of mobile advertising into business' marketing mix (Sainsbury, 2006).

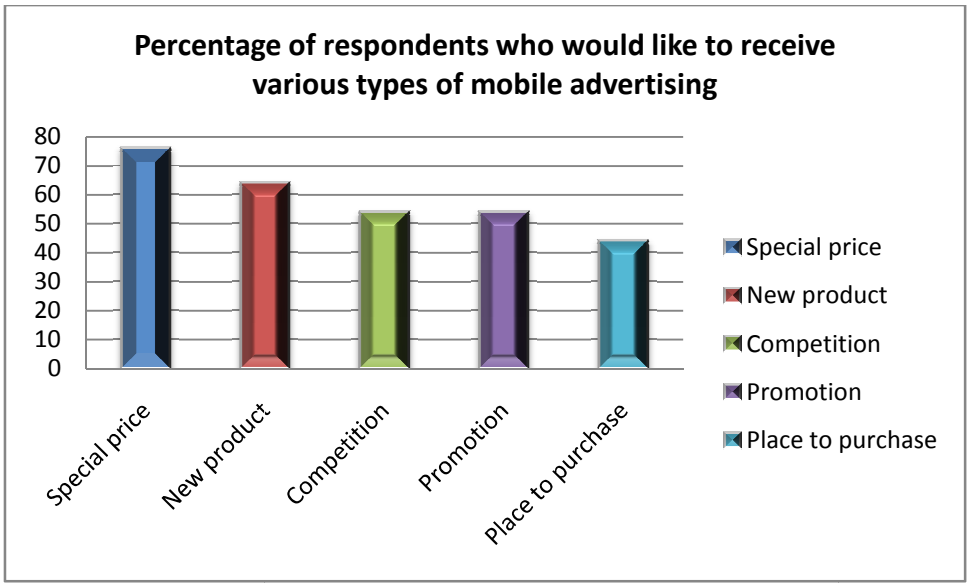
Although the research provides evidence that it is acceptable to advertise to consumers via mobile phones on a daily, weekly or monthly basis, one quarter of responses were allocated to 'monthly' advertising. Given this result, business should consider varying their mobile phone advertising frequency based on the nature of the advertising message. For example, a limited promotional or price discount period would require more frequent advertising, while monthly advertising may suffice for a brand awareness message.

Chart 5: Respondents Preference for Receipt of Mobile Phone Advertising



Respondents were then asked what type of advertising they would like to receive on their mobile phones, to which more than one quarter confirmed special price as the advertising message most desired. This supports the claim that time sensitive special offers or discounts (especially m-coupons) were most likely to lead to purchase (Mobile Marketing Association, 2010).

Graph 4: Respondents Preference for Mobile Phone Advertising Message



Despite the low income levels of the BoP consumer, they are very brand-conscious, and by necessity, so too are they value-conscious (Prahalad, 2005). Special price with the highest count confirms Prahald's statement, as does new product with a rating of second. BoP consumers wants information of this nature as they believe it to be important to the value of the product, defined by two variables; quality versus price. The opportunity of a new product with greater benefits at a fair price is deemed as providing greater value to the purchase.

The most obvious characteristic of the consumer at the BoP is their low level of disposable income (Prahald & Hammond, 2005; SadreGhazi & Duysters, 2008). Furthermore, the low income consumer often has to pay higher prices for many of their basic goods and services than their middle to high-income counterparts – a phenomenon called "poverty penalty" (SadreGhazi & Duysters, 2008). This supports the key finding in this proposition that pricing is an important advertising message when communicating to the BoP.

Promotions and competitions are additional messages BoP would like to receive and this is the opportunity to create a short term value benefit. While the BoP want to receive these short term value benefits offered by promotions and competitions, the prospect of longer

term benefits in the form of reduced prices and new products, is more appealing to this market.

It must be stated that promotions and competitions, although short term benefit, may be a long term benefit for business if used as a tool to drive product trial and gain new consumers.

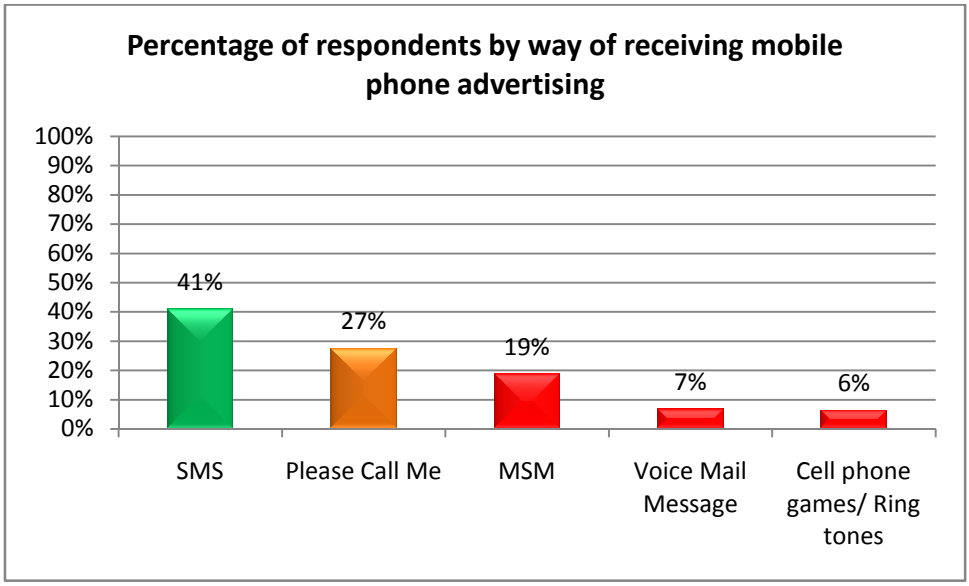
MNC's must understand the importance of the adaption of a marketing mix that emphasises function, and identity where products and services are also perceived as a means to a larger world of cherished values, and not just tied to physical or material well-being (World Bank, 2002). In support of this, business should follow a balanced mobile advertising campaign which drives both brand equity (value) as well as sales (volume). Business must communicate promotions, prices and competitions, but at the same time also send out messages that truly build the brand – advertising that help to better the consumer's life. The low education levels of BoP consumers and their relatively limited awareness of the 'outside' world has led to this consumer segment often being described as viewing global brands as suspicious outsiders to be shunned (Nair & Venkatagiri, 2005). This dynamic could be alleviated by businesses following a more balanced approach. For example, Nokia sends out weekly newsletters which provide the top newsworthy stories of the week, weather forecasts, and sporting results. Colgate sends out general health tips related to oral care and general hygiene.

As seen in the results of proposition 2, consumers are not receiving advertising messages related to new products, however, based on the results above for proposition 3, New Products is ranked in second place highlighting a gap between messaging that consumers are receiving and messages they want to receive. Business needs to take this into consideration in developing their advertising messages.

6.3.2 Discussion of findings on Proposition 4: BoP want to be informed of *various* product and brand information through mobile advertising.

The most effective form of mobile phone advertising is opt-in SMS (Mobile Marketing Association, 2010). This research is supported by the results of proposition 4 where almost half of respondents selected SMS as the preferred mobile phone service through which to receive mobile phone advertising.

Graph 5: Respondents Preference for Mobile Phone Service for Receipt of Advertising



SMS is the simplest and quickest of the mobile phone services in terms of retrieving and viewing the advertising message. This, coupled with the fact that SMS is the most widely used service by this market (see Research Section 5.2.3), are possible reasons that BoP ranked this the highest of all the mobile phone services through which to receive advertising. A concern is the recipient's ability to read and understand the advertising message correctly given the differences in language and low levels of education. Business must consider

utilizing prominent vernacular languages by region or township. If English is to be used, it is advisable that the message be kept short and simple.

Ranking results of Please Call Me as second is surprising. Based on the negative association of the cost of the mobile phone call, it is thought the BoP would not want to receive advertising via this service. An alternate consideration is the BoP could associate the receipt of the Please Call Me service with positive emotions of the opportunity to speak to a loved one, friend or a person of importance.

MMS is one of the more recent mobile phone services and does not work particularly well when delivered on entry level phones. The low resolution and poor screen quality make the messages difficult to view and understand. Business utilising the MMS service for mobile phone advertising are creating more visually appealing advertisements with sound and high quality graphics, not tailored to entry level phones. As the mobile phone continues to advance technologically, in the near future the most basic of mobile phones is envisaged to have the functionality to successfully display MMS mobile phone advertising. Until this time, the BoP may interpret MMS advertising received on entry level devises as spam and the advertising message will be lost.

Result number four is voice mail message, where a voice mail is delivered directly to the voice messaging service of the recipient's mobile phones. The recipient is notified of the voice mail message through an SMS and then accesses their voice mail account to listen to the message. The advertising message is entirely verbal and promotes one or more aspects of a product or service. The benefits of voice mail messaging advertising are that the advertising message could be delivered in the local vernacular, ensuring the advertising message is not lost in translation. The negative aspect of advertising via this mobile phone service is that retrieving the message can viewed as cumbersome and time consuming, and as an invasion of privacy through unsolicited messages received via personal voice mail service.

Cell phone games and ringtone downloads is last in the mobile phone services through which BoP would like to receive mobile phone advertising. Due to the relatively high cost of cell phone games and ring tone downloads, this services has limited utilisation by the lower end market segments.

Advertising via this medium would be beneficial if business followed an approach of sponsoring the cost of downloads, as is done with the Please Call Me service. This follows the principles of Rutherford (2001) and Carbonell and Martinez (2007) who state that firms marketing to the BoP need to carefully cultivate perceptions of “partnership and cooperation” rather than “competitive-mercantile” perceptions. Businesses seen to have the interests of the BoP at heart, will be well received by this market, as will their advertising.

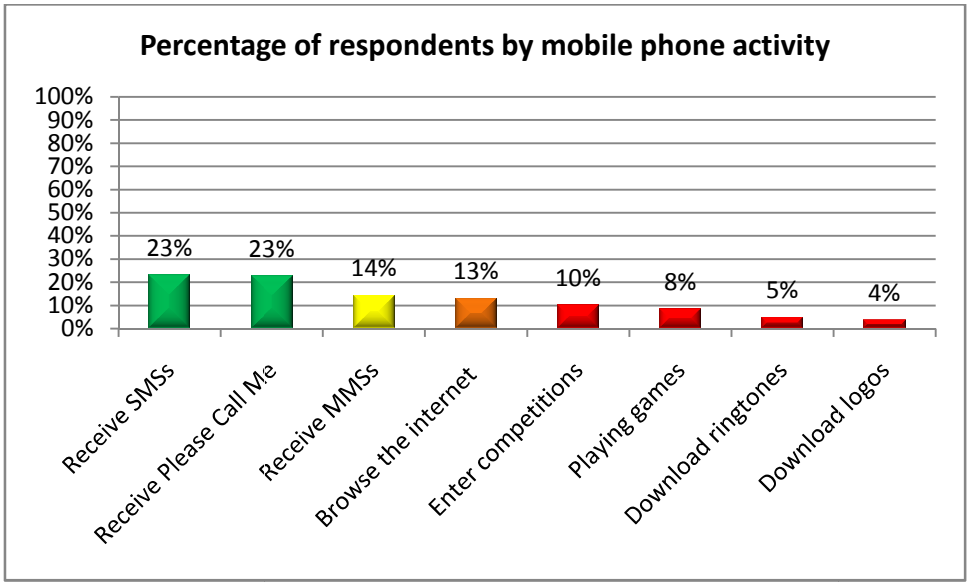
The choice of SMS as the preferred service is further confirmed through the cluster analysis which provides evidence that across the 3 groups, all favour SMS, with the groups of Receptives and Moderate Receptives having almost 100% confirmation of this service, and the non-receptive over 40% - SMS service is the highest selected service for all three groups.

The fact that the graphs (Research Section 5.2.3) all follow the same patterns indicates consistency across the BoP sample and further indicates the mobile phone services business is to focus on. MMS services could received acceptable rating across the three clusters and would be considered as an additional option for businesses targeting BoP, but the comments raised in section 6.2.1 must be considered before expensive advertising design focusing on high graphics and picture resolution is completed by advertisers. The MMS delivery mechanism is also more expensive when compared to SMS and Please Call Me services. The additional advertising costs relating to advertisement creation and delivery, with the reduced impact in terms of hits per bulk delivery send, means businesses advertising to the BoP should do so using SMS and Please Call Me mobile phone services.

The key aspect is to keep it simple for this consumer, both in the message and the delivery mechanism (service) which must be simple if the consumer is to engage with the message.

Graph 6 illustrates the usage of mobile phone services. This combined with results from proposition 1 confirms that new applications and services linked to mobile phones, such as MMS, games, music and digital photography, have emerged and are already being used by some marketers (Kajalo et al., 2007).

Graph 6: Respondents Preference for Mobile Phone Service for Receipt of Advertising



When related to question 11 (See Appendix 2: Questionnaire) it is clear that business should focus their mobile adverting through the SMS, please call me, and to a lesser extent, the MMS service – as these are the services most used by the BoP.

The results relating to which mobile phone service BoP would like to receive mobile phone advertising on, are consistent with the results of question 12 (See Appendix 2: Questionnaire), which tested the use of mobile phone services. The correlation is almost identical and explains BoP would like to receive advertising through the services and activities through which their mobile phone is predominantly used for.

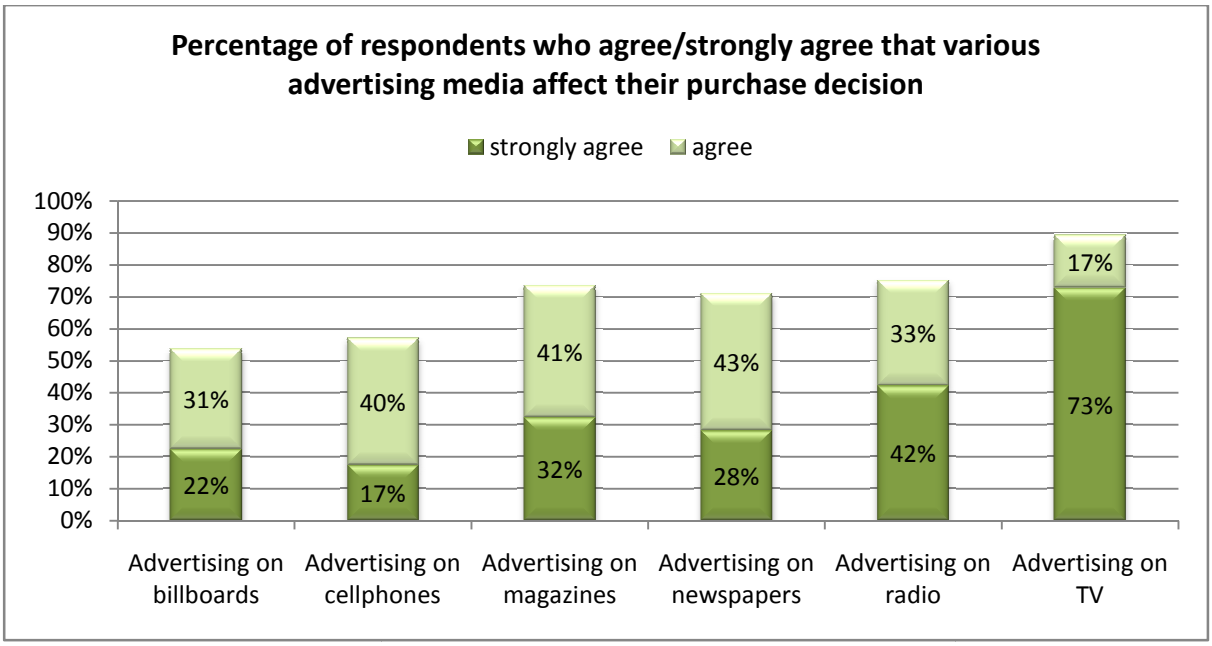
6.4 Research Proposition 5: Convenience

The final proposition investigates the impact of mobile phone advertising in relation to other advertising media and also ascertains the level influence this advertising has on the purchase decision making process. It measures the convenience aspect this market places on the content and messaging of mobile phone advertising in relation to other advertising media.

6.4.1 **Discussion of findings on Proposition 5:** Mobile advertising has a strong impact on the product or services decision making process for BoP

Radio, Print, TV and Outdoor are being extensively used within the marketing mix across all LSM segments, including BoP, but advertising via mobile phones is becoming a more prevalent means of advertising as it provides a more direct means of communicating to the target audience (Kajalo, et.al., 2007).

Graph 7: Impact of Advertising on Urban BoP positive results



The above graph from the data analysis substantiates the previous statement that mobile phone advertising is becoming a more prevalent means of advertising with more than half of respondents confirm a positive impact for this form of advertising.

Duysters and SadreGhazi (2008) highlighted the need for a variety of approaches in accessing and educating the consumers in low-income markets, for example, simple billboards on walls, truck-mounted demonstrations and the use of local communities to spread the word. Review of Graph 7 confirms Duysters and SadreGhazi statement. The importance of advertising through multiple media is proved with positive results of greater than 50% for all the media types.

Billboards are an effective form of advertising or promoting in these markets (Gomez-Arias & Subrahmanyan, 2008). The study has provided a differing result with Billboard advertising having the lowest impact on purchase decision making when compared to the other forms of advertising.

Mobile phone advertising received a higher ranking then billboard advertising. This is extremely promising for this advertising medium given the fact that mobile phone advertising is a medium that is still in its infancy stage.

Mobile phone advertising received the highest percentage of respondents who strongly disagree that this medium impacts the purchase decision making process. This is more than double any of the other media. This may be an indication that an opportunity for growth that exists in this advertising segment as mobile phone advertising is still in its infancy, and the market place is still in the process of understanding and utilizing this medium to its greater potential.

The established advertising media, radio television and print, have relatively standard rates across the various advertising types. Mobile phone advertising, being a new technology and still in the infancy stage of mobile phone advertising, is yet to establish generally accepted rates as potential advertisers as unfamiliar with the development and distribution costs of

this technology. Limited benchmarks exist and this is proposed as an additional reason for the limited advertising via mobile phone by the business community. More structured and standard costs will increase the advertising volume and frequency of mobile advertising and thereby increasing the impact on the purchasing decisions of BoP.

Using factor analysis to analyse the inter correlations of the six advertising media type; two factors (groups) were identified. Self Selective Traditional Media are television, radio, magazines and newspapers. These are all well established, traditional media types which have proven effectiveness across all market segments. The media types of this factor all scored high on impact of purchase decision. Mobility Media are more omnipresent in nature and comprise of billboards and mobile phone advertising. These two media types scored far lower than the Self Selective Traditional Media with regards to impact on purchase decision making.

It is believed that lower score is a result of the receiver not selecting to receive the advertising via that medium, as is the case in traditional media where selection of television and radio stations is self selected, as is the case with magazines and newspapers. The intrusive make-up of Mobility Media means the receiver has no choice in receipt of the advertising, causing a negative disposition to the advert and advertising message.

The chi-square analysis did reveal significant difference between the preferences of low Mobile Media and high Mobile Media (See Research Section 5.2.4), with more respondents who claimed their purchasing decisions were highly influenced by mobile media wanting advertising more often than those that scored low on Mobility Media. Specifically, over half (53%) of the respondents in the high mobility media group want mobile phone advertising daily, compared to 19% in the low Mobility Media group.

7. CONCLUSION

7.1 Introduction

The purpose of this study was to identify if mobile phone advertising is an effective advertising medium for South African Business and Multinationals to market goods and services to the South African Urban BoP. The Mobile Marketing Acceptance (MMA) framework was developed to test the four variables which the literature review identified as critical to effective mobile phone advertising to urban BoP.

This chapter draws on conclusions that can be derived from the research of the propositions relating to the constructs of the MMA framework. . Recommendations for South African business and multinationals will also be made based on the findings. Finally, this chapter will present suggestions for future research.

7.2 Main findings and conclusion

Mobile phone advertising is a 'sleeper' advertising medium, an emerging advertising channel with an enormous potential which is still far from being realised (O'Shea, 2007). The research supports this view through providing evidence that while the BoP receives and is aware of mobile phone advertising, it is the advertising message which is reducing the impact and overall effectiveness of mobile phone advertising. The fact that mobile phones are now used by about half of the world's population (International Telecommunication Union, 2010), substantiates the potential for this advertising and is supported by the 63% acceptance of mobile phone advertising. This is likely to increase as business and consumers become more familiar with mobile phone advertising as a common advertising medium.

The research tested the MMA framework adoption in low-income urban markets. The low-income market was classified as the foundation tier of the economic pyramid in South Africa represented by LSMs 1-4. From the findings of the research study, the main conclusion is

that all the constructs are applicable to low-income urban market for mobile phone advertising.

The areas of most significance from the research is that BoP accept mobile phone advertising as valuable but South African business, Multinationals and their advertising agencies communicate messages that are not necessarily sought by, or relevant to this market. The disconnect between comparison of the awareness and acceptability constructs provides evidence of this. The research shows BoP want to be informed of special price and new products, but business is focussing advertising around competition and promotions messages. Business must not only focus on price and new products because that's the consumers preference, but needs to ensure that they have a balanced mix of messages consisting of both short and long term messages displaying immediate benefits as well as building advertisers brand equity.

The research problem posed the question; should companies use mobile phone advertising when specifically targeting the BoP as alternative or additional media vehicles. The research shows evidence through the convenience construct that mobile phone advertising is to be used in conjunction with advertising from other media. The lower rating received by mobile phones, compared to the traditional media types, shows the impact of this advertising falls behind the impact of traditional media. BoP confirmed the convenience criteria to support mobile phone advertising, but at a lower rating then TV, radio, magazines and print media, confirming this modern advertising media to be used in conjunction with traditional media.

Availability construct is another key element to the research, which showed business is advertising to this market via mobile phone advertising. The 93% proposition confirmation provided the base for the research as it was evident South African business and multinationals are indeed advertising to the BoP via mobile phones. The research into awareness, acceptability and convenience would not have been possible if the availability criterion was not affirmed.

In summary, the research confirmed mobile phone advertising as a medium to be used when advertising to the urban BoP. The research further identified interesting trends across the market with regards to the advertising message as well as the mobile phone service through which the BoP consumer wishes to receive communication. The research identifies the types of messages and mobile phone services through which these messages should be communicated as guidelines for businesses advertising to the BoP

7.3 Recommendations

The recommendations are based on the findings of this research and are directed to South African businesses and multinationals marketing goods and services to urban BoP. These organisations need to acknowledge the mobile phone as a channel through which to market to the BoP. Companies have in many instances already seen the economic potential this market presents, and successfully advertising through mobile phones will assist to carefully cultivate perceptions of “partnership and cooperation” rather than “competitive-mercantile “ perceptions (Carbonel & Martinez, 2007).

This partnering approach can be taken further to sponsorship of additional mobile phone service other than Please Call Me service. Sponsorship of MMS messaging which enables the sender to attach a picture to a SMS, with the company advertising, would increase both recall and recognition. The same would apply to sponsoring the service of games and ringtone downloads.

Advertisers need to give careful consideration to the advertising message, which needs to be focused on long term value benefit the BoP consumer will receive from the product or service. Bearing in mind the current low impact levels mobile phone advertising have within the BoP market, it is important that multiple media and multi message types are supporting the benefit advertising.

A clear understanding of the frequency of mobile phone advertising is required by businesses targeting the BoP market segment. Advertisers must take into consideration the nature of the advertising message where frequency is to be increased for short term benefit advertising with specific expiry periods, and more moderate advertising frequency is to be used for long term benefit advertising. Mobile phone functionality makes it easy for the recipient to delete message they believe immaterial and of no value.

The businesses advertising via mobile phone to BoP need to keep abreast with technology advances within the mobile phone market, as well as the mobile phone advertising market. This provides businesses with the opportunity to create more appealing adverts which improves not only the awareness construct of the MMA framework, but also promotes word of mouth, which is an effective form of advertising or promoting in BoP markets (Gomez-Arias & Subrahmanyan, 2008). The dynamic nature of the mobile phone makes it quite an exciting advertising medium which should continue to gain the interest of consumers.

7.4 Future Research Ideas

The research presents mobile phone advertising as having high levels of recall, research into recall levels of mobile phone advertising in comparison to other advertising media would be beneficial and provide a insight in the relative recall strength of mobile phone advertising.

The study investigated recall of a message type and not of a product or brand. Research in product and brand recall and recognition from mobile phone advertising would be of interest as this is a key measure of advertising effectiveness in the advertising industry.

The impact of the message also needs to be investigated versus other media type. Both impact and recall are traditional measures that business uses to measure effectiveness of their advertising.

Further studies are suggested to investigate how businesses can optimise their advertising budgets in terms of mix of media vehicles and investment. Should business source

additional funds to enable investment behind mobile phones advertising, or should funds be sourced from within existing media budgets through reducing advertising spend on other media types.

Research on the importance of advertising on mobile phones in vernacular languages rather than English would be of great benefit to advertisers targeting BoP, specifically urban BoP.

Lastly, it is suggested that further research be conducted on mobile phone advertising to the rural BoP. This market has less access to a variety of goods and services, for which they often have to pay much higher prices for. It would be interesting to compare the advertising message sought by urban BoP, with those the rural BoP deem important to their purchase decision.

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**Denotes reference for figure12*

Appendix 2: Questionnaire

Universiteit van Pretoria
University of Pretoria

GORDON INSTITUTE
OF BUSINESS SCIENCE

UNIVERSITY OF PRETORIA

GORDON INSTITUE OF BUSINESS SCIENCE

BACKGROUND INFORMATION DOCUMENT

AND INFORMED CONSENT FORM

My name is Victor Mesquita and I am currently studying for a Master of Business Administration (MBA) degree at the Gordon Institute of Business Science with the University of Pretoria. I need to complete a research project and have chosen to investigate mobile phone advertising in lower income areas in South Africa.. Questions will relate to the following mobile services:

- Receiving of Mobile Phone Advertising
- The nature and type of mobile phone advertising being received
- The amount of mobile phone advertising being received
- Personal perception of mobile phone advertising

The following questionnaire will be used to test the use and acceptance of this service in terms of a framework for low-income consumers.

I would appreciate your participation in this study. It should take you no longer than 10 minutes to complete the questions. There are no costs to you. I undertake to keep all information received strictly confidential. Kindly answer the following questions.

By completing the survey, you indicate that you voluntarily participated in this research. However, if you so wish you can withdraw at any time. If you have any concerns, you can contact Victor Mesquita on 082 897 7806 or the research supervisor, Dr. Clive Corder on 082 655 6740 or cliveco@icon.co.za.

Dr Clive Corder or one of his associates may contact you to confirm the content of the questionnaire and the accuracy of the answers portrayed therein.

Thank you for taking time to complete this questionnaire.

Yours sincerely

Victor Mesquita

Qualifying Question:

Are there any adults 16 years or old currently at the premises?

Please can you give the name of any adults who in this household personally own a cell phone - if no at the house owns a phone please take a substitute until you find a home where someone does won a cell phone

SECTION 1: CHARACTERISTICS

*Please tick **one** appropriate answer in the nominated **box** for each of the following questions. (Put in CAPS)*

1. which of the following do you have in your household?

	Yes	No
Hot Running Water		
Personal Computer/ Laptop or Desktop		
Motor Vehicle		
Vacuum Cleaner or floor polisher		
Electric Stove		
Microwave Oven		
Flush Toilet Inside or Outside		

Question 2:

Do you own a cellular phone?

Yes		No	

Question 3:

Female		Male	

Question 4:

What is your age group?

16 - 24 years	
25 - 34 years	
35 – 49 years	
50 years and over	

SECTION 2: RECEIVING MOBILE PHONE ADVERTISING

Question 5:

Have you ever received advertising on your cell phone?

Yes		No	

Question 6:

When did you last receive advertising on your cell phone;

24 hours	3 days	week	two weeks	Month or longer

SECTION 3: AWARENESS MOBILE PHONE ADVERTISING

Question 7:

Can you recall what products or services this advert as for?

Yes		No	

Question 8:

What were the advertising messages? (Explain the options if need be)

Special Price	New Product	Competition	Promotion	Place to Purchase

SECTION 4: VALUE AND CONVENIENCE OF MOBILE PHONE ADVERTISING

Question 9:

Would you like to receive advertising on your mobile phone?

NEVER	daily	twice a week	weekly	monthly

Question 10:

Which of these types of advertising, if any, would you like to receive on your cell phone?

(Interviewer read out and tick Yes or No)

Special Price		New Product		Competition		Promotion		Place to Purchase	
Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

Question 11:

In which of the following ways, if any, would you like to receive advertising on your phone

(Interviewer read out and tick Yes or No)

SMS		MSM		voice mail message		please call me		cell phone games/ ring tones	
Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

Question 12:

Please select which of the following cell phone activities you use:

(Interviewer read out and tick Yes or No)

Playing games		Enter competitions		Receive SMS's		Receive "Please call me's"		Receive MMS's		Download ringtones		Download logos		Browse the internet	
Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No

SECTION 5: IMPACT OF MOBILE PHONE ADVERTISING

Question 13:

To what extent do you agree or disagree that advertising on Billboards effects your purchase decision:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Billboards					

To what extent do you agree or disagree that advertising on cell phones effects your purchase decision

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cell phone					

To what extent do you agree or disagree that advertising on magazines effects your purchase decision

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Magazines					

To what extent do you agree or disagree that advertising on newspapers effects your purchase decision

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Newspapers					

To what extent do you agree or disagree that advertising on radio effects your purchase decision

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Radio					

To what extent do you agree or disagree that advertising on TV effects your purchase decision

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
TV					

Back checks

Thank you for taking time to complete the survey, your contribution to this research is greatly appreciated. You may be contacted to check that the questionnaire answers agree with your sentiment, and also gain your rating on the quality of the interview. Is this acceptable to you?

Yes		Name:	Mobile Phone Number:
No			