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## Cellular phones as an m-commerce application in the emerging youth market in South Africa

### *ABSTRACT*

The effects of wireless communication on society emphasise one of the discrepancies that exists between developed and developing countries like South Africa. Mobile commerce is experiencing a growth rate in the developed world unlike in South Africa. Wireless communication in the form of mobile communication is being adopted at a significant pace, especially among urban emerging youth markets in South Africa. This market's connectivity is mainly via SMS. The most pertinent finding of the research is that the role of cellular phones as an m-commerce application in the emerging youth market is one of connectivity, lifestyle and usage convention.

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## 1. INTRODUCTION

Africa's fastest growing sector is wireless communication. For example, in May 2003 cellular (mobile) phones made up more than 65 per cent of the total number of telephone lines in Africa. This is reflected in South Africa, where the cellular (cell) phone consumption has been so rampant that it now outnumbers the fixed lines. Consequently m-commerce will take on a specific application within this context of a developing society. In this regard, mobile messaging in particular has caught the imagination of the emerging youth market in South Africa. Grapevine Communications (Anon., 2003c) said the following with regard to SMSs, "SMS has gone way beyond the stage of personal messaging campaigns and is very much a component of the marketing mix". The usage of SMSs in South Africa is of particular importance, as the growth thereof has been made possible through the low-end prepaid subscriber base. Vodago, Vodacom's prepaid package launched in November 1996, now accounts for more than 90% of all new connections to the Vodacom network. Furthermore, it is interesting to note that people in previously under-served areas are making 35 million calls per month just from Vodacom's 2 135 community phone shops (i.e. they do not possess their own cellphones).

The above information illustrates that the growth in consumption is occurring within what has been labelled the emerging market, which is characterised by aspiration and conspicuous consumption. The largest and fastest growing component of not only this market, but also the South African market is the Black youth market that represents 48.7% of the population (Kraushaar, 2004). This is in line with the Youth Mind and Mood Report (FCB Headspace, 2001) that states that the number of global mobile subscribers who are under the age of 25 are expected to increase to 152 million by 2004. Research conducted by Unilever (2002) shows that cellphones are a fashion statement, so the branding thereof plays an important role. In this context, brands as a fashion statement have to do with identity. In this market it is not just what you wear but what you carry (mobile phone) that acts as a status symbol. This consumption of mobile phones is a visible indicator of materialism, as it becomes an outward expression of identity. The pivotal role of the cellphone in the lifestyle of this emergent youth market has been noted by all three dominant network operators as each has a marketing communication campaign and product offering aimed uniquely at this emerging youth market.

The research problem is: What is the role of cellular phones as an m-commerce application in the emerging youth market in South Africa? The research will be undertaken from a qualitative perspective utilising focus groups and in-depth interviews. The findings can hold relevance for other developing societies as they are also characterised by a large youth market. Furthermore, SMS services still have room to penetrate the large prepaid subscriber base in South Africa, thus representing the application of m-commerce in a specific developing context.

## 2. WIRELESS COMMUNICATION

The global market has been influenced by technology, which has led to a change in market focus. It has shifted from the paradigm of an industrial economy, which focused on land

and labour, to that of a global economy, which places emphasis on Information and Communication Technology (ICT). Revolutionary technological breakthroughs have taken place in the past decade and one of those developments has been wireless communication.

Wireless communication is a term that refers to the wireless transmission of data and information (Duncan, 2001). Similarly it can be described as a wireless digital communication programme that enables the consumer to purchase a product or service using a wireless device (Anon., 2002a). Levy and Stone (2002) add that wireless technology is actually a part of radio, and different devices run on different frequencies on the radio bandwidth. Despite these clear conceptual parameters, the terms wireless and mobile are words that are commonly used as synonymous terms. However, the difference is that many mobile solutions do not require wireless access to serve the intended purpose effectively.

The wireless market is predicted to grow steadily by 2007. The use of wireless communication technology was expected to grow from about 170 million subscribers worldwide in 2000 to more than 1.3 billion in 2004 (Anon., 2000). By the end of 2004 more than 1 billion handsets, personal digital assistants (PDAs) and Internet applications would be equipped with wireless capabilities (Anon., 2000). Cellular Online (2005) corroborates this expected increase in handheld devices by indicating that at the end of 2004 there was a total of 1.5 billion global mobile users. In 2005, the Wireless Net will overtake landline use (Anon., 2003d). Furthermore, eMarketer (2003d) predicts continued growth and estimates that 56.8% of 1.460 billion Internet users will be using a wireless connection by 2007 (Anon., 2003d).

However, growth in mobile phone penetration is not restricted to developed societies. Nolan (2003) acknowledges that wireless systems are one of the most important means of communication in Africa. This is reaffirmed by Vaknin (s.a.) who states that for countries in transition, cellular phones can in fact be more ubiquitous than fixed line connections. The reasons for this revolve around the issue that the adoption of mobile phones in the developing world is catalysed by the speed of infrastructure development in rural and remote areas versus landlines. This could refer to the concept of leapfrogging, which is explained as "the notion that areas which have poorly-developed technology or economic bases can move themselves forward rapidly through the adoption of modern systems without going through intermediary steps" (Cascio, 2004). Similarly, Singh (in Vaknin, s.a.) believes that leapfrogging involves the acceleration of development as the existing technology is able to be adopted.

One particular application of wireless communication is m-commerce.

### 3. M-COMMERCE

The development of technology has gone from analogue to digital technology and the newest technology allows for wireless communication to take place via the mobile device. This has enabled the development of mobile commerce (m-commerce).

Mobile commerce has been referred to as the third wave of e-commerce. The first wave focused on the physical location of the seller and the buyer and establishing an electronic way of processing the transaction (Ohlson, 2002:3). The second wave in e-commerce focussed on the birth of the Internet that became the retail window. The third wave of e-commerce is called m-commerce and introduces the mobile telecommunication networks to e-commerce.

Durlacher (1999) defines m-commerce as the use of a mobile handheld device to communicate, inform, transact and use text and data via a high-speed connection to public or private networks. Mobile commerce has also been referred to as the use of wireless digital communication tools within a business structure and includes any value-added transaction or service carried out over a wireless network (Stone et al., 2001:1). In other words, mobile commerce is the term applied to online financial transactions – shopping or the electronic transfer of funds – using a mobile device. Reinforcing this perspective, Durlacher (1999) in Lehner and Watson (2001:1) defines m-commerce as any transaction with a monetary value that is conducted via a mobile telecommunication network. It refers simplistically to the transmission of information to and from the individual supplied and fed into the Internet via the Palm handheld device or mobile phone device (Kauffman & Techatassanasoontorn, 2001).

It should be noted that there are various types of m-commerce and a distinction can be drawn between three different types of m-commerce:

- Soft commerce - soft commerce is currently the most popular Internet application and the primary focus of mobile operators. Soft commerce works on a transactional real-time billing system (Anon, 2002a:2). Examples of soft commerce include downloadable ring tones, stock quotes and traffic reports.
- Hard commerce - hard commerce is a model that focuses on paying for real-world goods and services at the physical point of sale. An established payment infrastructure is necessary, which is supported with point-of-sale terminals and a system that allows the establishment of communication with batch-based payment systems. Examples of hard commerce include payment for services such as coffee at a coffee bar or paying for a parking meter.
- Distance commerce - as the term explains, this involves the purchase of goods or services that are delivered later (Anon., 2002a:2).

With the parameters explaining the term in place, it is possible to discuss the ensuing characteristics of m-commerce.

### 3.1 Characteristics of M-Commerce

- Ubiquity  
In this context ubiquity refers to the ultimate form of mobile reachability and mobile accessibility. The developed world, specifically Europe, has created an environment with ubiquitous mobile handheld devices. These devices fulfil the need both for real-time information and for communication anywhere, independent of the user's location (Durlacher, 1999 in Junglas, 2002:22).

- **Ease and convenience**  
Ease and convenience form the basis of the new economy as an economic model. The individual has the freedom to access any information or purchase any goods or services using the relevant device. As stated by Rao (2000:53) the electronic shop-front is open 24 hours a day to the entire world. Business can be conducted in a system where physical boundaries set no limitations. Furthermore, Gupta (2001:4) acknowledges that the mobile-commerce transaction should be a convenient and easy process for the consumer to perform when selecting a product or service.
- **Reachability**  
Reachability refers to the concept that the user is “always on”. The user can be contacted anywhere, anytime and at any place reinforcing the characteristic of portability (Müller-Veerse, 2002:8). In this regard Junglas (2002:10) states that users also have the power to restrict their reachability.
- **Security**  
As Arthur Andersen’s research report (Anon., 2001d:3) states, cast-iron security remains a major concern when discussing mobile commerce. Concern remains about the interference of an unauthorised third party and consumers need to be convinced that the mobile transaction is as secure as any physical transaction taking place outside the virtual world. According to Hanson (2003) campaigns using personal communication devices should be rewarding to consumers and respectful of their privacy. Thus, spam, the term used to describe unsolicited commercial messages (Halberstadt, 2002), goes against the users’ right to privacy.
- **Localisation**  
Location-sensitive information becomes a key element in wireless communication as knowing the location of the user creates significant value for the user. This is better known as location-based commerce or l-commerce. According to ARC Group, location-based services will account for 40% of a mobile phone operator’s revenue in 2007 (Druce, 2002). This will amount to \$15 billion.
- **Instant connectivity**  
Instant connectivity encompasses the way in which information is accessed. Currently via GSM (second-generation technology or 2G), the user has to make use of an intermediary device before any transaction can occur. GSM is the prevailing mobile standard in Europe and most of the Asia-Pacific region. More than 215 million people use GSM, which represents 50% of the world’s mobile phone subscribers (Lightman & Rojas, 2002:34). Second-generation technology is also currently the dominant wireless network used in South Africa. GSM technology limits the full application of instant connectivity and hence new technologies are developing. This has led to the development of more sophisticated technology such as 2,5 G systems. Furthermore, GPRS was developed and is the first transport mode that allows full instant mobile Internet access. Third-generation technology (3G) is the resultant mobile technology development (Müller-Veerse, 2002:20).

- Personalisation

Through interactivity, personalisation becomes possible due to the opportunities of customization, for example, consumer-focused entertainment that is customised to the needs of that individual. According to Datamonitor 200 million people in Western Europe and the US will choose playing Internet games via mobile phones. This represents four out of five mobile users (Pastore, 2000). By 2005 the wireless gaming industry will be worth US\$6 billion in the US and Western Europe (Pastore, 2000).

### 3.2 The state of M-Commerce

A noticeable uptake of mobile technology has occurred in Europe since 2001 (Miller-Veerse, 2001:59). According to a survey conducted by Dataquest the number of mobile subscribers reached 237 million by the end of 2003 (Miller-Veerse, 2001:59). This means that the average penetration in the market is 64% across the European continent, with a minimum of 50% in every country. This level of penetration is possible due to the telecommunication infrastructure existing in the developed world.

It was estimated that by 2005 there would be 1,6 million wireless Internet users in the world and the revenue from m-commerce during this year will reach 200 billion US dollars (Giussani, 2001:149). The country generating the most revenues from m-commerce in 2003 was Italy (Euro 4,8 billion), followed by Germany (Euro 4,1 billion) and the United Kingdom (Euro 3,4 billion) (Miller-Veerse, 2001:61).

Research conducted by Arthur Andersen (2001d:3) shows that the consumer in Europe has accepted and is using the mobile device at a faster rate than the Americans. The term mobile device extends beyond the mobile phone and refers to a small lightweight device that is used for voice and data communication. This device serves as a terminal for any wireless communication and transaction as it can connect to the Internet and communicate with any service provider in the marketplace through a common communication interface, namely Wireless Application Protocol (WAP) (Junglas, 2002:9). An example of this is what is referred to as a "smart phone" (Anon., 2002a:1).

A WAP-enabled device uses a Global Packet Radio Service (GPRS) network. WAP is a global specification that creates access to the Internet via mediums such as mobile phones and terminals (Miller-Veerse, 2001:23). WAP devices have created the opportunity for the individual to move away from the desktop device and fulfil all the functions from a handheld device. It also offers personalised location-based services such as mobile banking, real-time news, online shopping and electronic cash payment facilities (Stone, et al., 2001:5).

Although the number of mobile users is increasing, the development of m-commerce is slow as not all of these users perform transactions (Wallington, 2002). Most of the m-commerce transactions are currently processed on wireless devices and not specifically the mobile phone. A study conducted by Forrester shows that the personal digital assistant (PDA) is currently being used more often to process transactions. In 2001, one billion of all m-commerce transactions were influenced by a PDA. This has escalated to 5,6 billion sales being influenced by PDAs in 2002 which grew to 24 billion sales by 2005. Transactions around the globe processed by means of a PDA reached 1,4 billion by 2004 (Anon.,

2003d:4). In contrast during the same year, only one million sales using a mobile phone would have been processed around the world (Anon., 2003d:4).

Despite the impact that wireless communication has had in the developed world, the rate of adoption and usage in developing countries is slower. The African continent has a total of 4 900 001 mobile users while a mere 1,6 million have engaged in mobile commerce (Anon., 2002a:5). In South Africa specifically, not only will the number of m-commerce users exceed the number of e-commerce users by 2003, but the noticeable impact of the mobile phone on the m-commerce industry will also become evident (Ndiaye, 2002).

#### 4. MOBILE (CELLULAR) PHONES

In 2000/2001, it was estimated that mobile phone penetration in Europe was 70%, which will escalate to 85% in 2005 (Anon., 2003d). In 2003, only 25% of all handsets were WAP-enabled handsets. The growth in this kind of technology is slow in comparison to standard handset sales. A total of 1.2 billion users currently use the ubiquitous mobile phone worldwide (Anon., 2003d). In 2004, 30.05% of all handsets sold will be WAP-enabled and this will escalate to 33.23% in 2005 (Anon., 2003d). Market forecasts predicted that WAP-enabled subscriptions would have increased in Europe in 2004 with a total of 12 million of all new cellular telephones in northern Europe, 50 million of all cellular phones in southern Europe and 100 million of all cellular phones in central western Europe being WAP-enabled subscriptions (Anon., 2003d).

According to Datacomm Research (Anon., 2003d) the ratio in sales between smart phones and conventional phones is large. In 2003 a total of 330 million smart phones were sold while only 40 million conventional wireless phones were purchased.

Mobile phone penetration has also occurred at a significant rate in Africa.

##### 4.1 Africa

Since the rollout of the first cellular mobile network operator in South Africa in 1994, Africa has seen explosive growth in the use of mobile phones, with this device now being an indispensable tool for communication, business and trade on the continent. This sentiment is supported by the Accenture Institute for Strategic Change that shows that "wireless is the next big wave" (Beck, et al., 2001) in Africa.

By the end of 1996 there were 15 million phone users across all 54 nations on the African continent. This consisted of 14 million fixed line users and one million cellular subscribers (Rose, 2002:1). According to the Global Mobile Subscriber Database, subscriptions in Africa and the Middle East increased by over a third in 2002 (Anon., 2003b) as Africa's annual growth rate reached 42%. This added 11 million new users in 2002 (Anon., 2003b). According to The International Telecommunications Union (ITU) there will be 131 million phone users in Africa by 2005 (Rose, 2002:2). This will comprise 100 million mobile users and a mere 31 million fixed-line users (Rose, 2002:2). The speed of mobile adoption is also worthy of a mention. Swaziland's cellphone users, for example, exceeded landline users within two years of the launch of mobile phones in this country.

There are a various reasons for the statistics recorded above:

1. Africa has just 1 of 70 of the world's personal computers and only 1% of the world's Internet population (Wright, 2003:25). According to Nyamnjoh and Hall (2002:1) this is due to the prohibitive costs of purchasing a home computer (also service costs as stated by Nevin (2002:2) can be around \$50 a month – the total monthly income in many African countries) and because of infrastructure limitations (electricity supply and connectivity to the landline phone system is erratic).
2. The introduction of prepaid systems instantly increased access. "The whole of the African continent is experiencing an emergence of prepaid mobile telephones in Africa" (Rose, 2002:1). This is evident in the fact that already by 2002 over 80% of all cellphone subscribers on the African continent used a prepaid service. Nevin (2002:2) provides the examples of South Africa and Egypt, both considered to be fast growing markets, and shows that already in 2002, prepaid subscribers accounted for 50% of all cellular users. This phenomenon is not experienced to this extent anywhere else in the world. The USA has a mere 8% prepaid user base and the Asia-Pacific nations 29% (Rose, 2002:2). The reason for the success of the prepaid system is that the operators' risk is reduced, access is instant and it does not require credit checks.
3. Weidemann (2004) highlights how lucrative the mobile market is, for in a country like Nigeria revenue earned from the average cellphone is twice that from the average US cellphone. This is despite the fact that the US has 1 000 times Nigeria's GDP per capita (Nyamnjoh & Hall, 2002:2).

In Africa, South Africa is the telecoms powerhouse boasting 55% of the entire continent's mobile phones (Rose, 2002:3). Furthermore, South Africa holds more than 80% of all cellular subscribers in southern Africa (Cant & Machado, 2002:1).

## 4.2 South Africa

Subscribers grew to 18.7 million users in December 2004 (Anon., 2004a) with an estimation that 80% of these users are active users (Anon., 2004a). This has contributed to the cellphone industry being currently estimated to be worth R45 billion (Anon, 2004b). This shows a growth from 2001 as a study done by Trialogue in the same year reported that there were about nine million mobile phones in use in South Africa (2001c:256). Wilson ((in Bührmann, (2002:59) states that research completed by Cahners In-Stat Group recorded an 18% penetration of mobile devices in the market in the same year. This is expected to grow to 32% penetration by 2005. It is estimated that there will be 19 million users by 2006 (Anon., 2003a). By the end of 2000, the number of mobile subscribers had overtaken the number of fixed lines provided by Telkom. This is 2,6% of the total consumption expenditure of South African citizens (Cant & Machado, 2002:2).

The significance of cellphone adoption in South Africa is reflected in the following quote of (Neustetter (r, 2002) that also involves the notion of leapfrogging:

When addressing 'unplugged' communities from a South African position, one is constantly reminded of the digital divide that is growing, as the knowledge and complexities of online culture and its global power struggles are expanding. The



communities that seem to be distanced from this digital culture are however starting to be involved in the process by different media that shift the parameters of who is “unplugged”, and what this actually means. Considering the high costs of computers and the availability of related computer literacy training in South Africa, mobile phones appear to be providing an intermediary link in the path to digital communication and a plugged-in networked culture. This is particularly prevalent within youth culture where issues of status and ownership regarding current and upcoming mobile technology function at a highly competitive level.

South Africa’s three cellular providers together cover more than 71% of the population (Anon., 2003a).

#### *4.2.1 South African cellular service providers*

There are currently three cellular service providers in South Africa who provide the service to subscribers. They are Vodacom, MIN and Cell C.

- Vodacom (Voice Data Communication) was the first cellular provider within the borders of South Africa to obtain a licence in 1993. Vodacom services both a pre-paid and post-paid market. The Vodacom subscriber base passed the 10 million mark in December 2003. Vodacom has 1.25 million customers outside South Africa (Anon., 2004b). In 2003 the Vodacom brand name was worth ZAR 6 billion, and it has captured 60% of the market share (Anon., 2003g).
- Mobile Telephone Networks (MIN) is the second cellular service provider in South Africa and commenced its services a few months after Vodacom. In February 2003, it was reported that MIN has 5.22 million users and 40% of the South African market share (Anon., 2003h). MIN also offers consumers a prepaid cellular package as well as a contract-based subscription. MIN’s international operations now account for 32% of its total subscriber base (Anon., 2004b).
- The third cellular provider, Cell C, was announced in 2000 and launched on 17 November 2001. Cell C reached a subscriber mark of 500 000 within the first six months of operation (Anon., 2001b). A majority of 460 000 of the 500 000 subscribers were prepaid users. In 2003 Cell C already had 1.1 million users (Anon., 2003h).

Cellular Online (Anon., 2003a) indicated that by the end of June 2004 Vodacom had a majority of the market share with 9.7 million users, MIN claimed 40% of the market share with 5.22 million users, and three million people were using Cell C.

According to the Unilever presentation called TrendYouth 1 (2002) cellphone use in South Africa is showing rapid growth with regard to the short messaging service component.

#### *4.2.2 Mobile messaging - SMS*

There are various types of mobile messaging and according to Lee (2002:3) the most common thereof is the short messaging service (SMS). Mobile messaging is the transmission of short text messages to and from a mobile phone, fax machine and/or internet connection (Lee, 2002:19). The most common form of mobile messaging is short message services.

SMS was commercially launched in 1993. Logica, an Internet company, predicted already in 2000 that the global volume of SMSs would increase by 170% a year (Anon., 2000). According to Gartner research house, 167 billion SMSs were sent in Western Europe in 2003 (Shapshak, 2003). This accounts for ≈18 billion in turnover for service providers (Anon., 2003c). According to Seberini, at Vodacom, a total of 250 million SMSs are sent on a monthly basis on Vodacom's network alone (Wagenaar, 2003). This service provider has experienced an increase of 64,7% in SMS usage for 2003 (Anon., 2003f).

Roeding, the founder of a German company that designs SMS campaigns, said that, "2003 will be the year that any global brand trying to reach the 14-35 market won't be able to do so without SMS" (Anon., 2004a). Bodnarchuk (2003:16) reinforces this sentiment and specifies that 12-24-year-olds particularly use SMSs. According to Oftel, 88% of 15-24-year-olds own a mobile phone and 30% of 16-18-year-olds sent more than 20 text messages a day. Relating to this, Cowlett stipulates, "to whatever tribe a young person belongs, they almost certainly carry a mobile phone and consider SMS an intrinsic part of their lifestyle" (2002:1). This reflects Kraushaar's (2004) comment that while sources of "cool" in developed countries have moved from an outward to an inward orientation, in South Africa it remains an outward focus. Primarily for the youth market, a cellphone becomes an expression of self-identity. This is in line with the *Youth Mind and Mood Report* (2001) that indicates that material wealth, respect and status define success. *Logistix Kids* indicate that cellphones are a means of obtaining this success (Kraushaar, 2004). Furthermore, they identified that the youth markets primarily "need to stay in touch" (Kraushaar, 2004). In addition she offers that the youth want content that is relevant, engaging and entertaining. Mogotsi (2004) reflects that particularly the black youth market is career-driven and ambitious and as such lifestyle brands play on important part in their lives.

Advantages of mobile messaging include low implementation and communication costs as mobile messaging is cheap and this has increased accessibility, immediacy as most mobile phone users carry their mobile devices with them, the message is delivered within a short period and there is precision, which involves the personalisation of the message (Lee, 2000:22). Despite these advantages there are numerous challenges facing mobile messaging. These could include network congestion, security (including theft) issues and spam.

## 5. METHODOLOGY

### 5.1 The research problem

The youth market is the fastest growing market in South Africa and has a ZAR 6 billion annual spend. According to Kraushaar (2004) 54% of the South African population is under the age of twenty-four. Twenty per cent of the population is between eighteen and twenty-four. When segmenting the youth market the classification system that relates to these individuals is referred to as young adults (nineteen to twenty-four). These young adults are part of a growing emerging market in South Africa. As such technology is becoming more accessible to them, especially to those living in urban areas. This

accessibility occurs mainly by means of mobile phones and text messages, specifically. Haig (2002:99) suggests that mobile devices are more about culture than about technology for the youth. Since mobile phones are wireless devices, they can potentially be used as a specific wireless application, namely m-commerce.

The research problem is: What is the role of cellular phones as an m-commerce application in the urban young adult emerging market in South Africa?

## 5.2 Research questions

The specific research questions to be addressed are as follows:

- What is the relevance of the role of cellular phones as an m-commerce application in the urban young adult emerging market in South Africa in terms of connectivity?
- What is the relationship between the urban young adult emerging market in South Africa and their cellular phones as an m-commerce application in terms of lifestyle?
- What is the dominant usage convention of cellular phones as an m-commerce application in the urban young adult emerging market in South Africa?

## 5.3 Research aims

The specific research aims to be addressed are as follows:

- To determine the relevance ascribed to the role of cellular phones as an m-commerce application in the urban young adult emerging market in South Africa in terms of connectivity.
- To determine what the relationship is between the urban young adult emerging market in South Africa and their cellular phones as an m-commerce application in terms of lifestyle.
- To determine what the dominant usage convention is of cellular phones as an m-commerce application in the urban young adult emerging market in South Africa.

## 5.4 Theoretical statements

- “For the youth audience, SMS is the primary form of communication, so provides marketers with a completely different way to interact with this age group, in their language” (De Kerckhove in Cowlett, 2002:2).
- According to Kraushaar (2004) mobile phones are popular among the youth, especially the emerging market, as a lifestyle device, as the youth are very image orientated and the cellphone provides them with the “cool” factor. If a youth member does not possess a cellphone or receive SMSs, this could signify being outside certain social circles.
- Unilever (2002) refers to mobile phones as the youth’s “umbilical cords” providing them with a new language via short message service. The most dominant convention in the usage of cellphones in South Africa is the SMS. SMS usage in South Africa is matching international usage patterns. Haig (2002:95) refers to this generation as Generation Text.

## 5.5 Research methodology

In this section attention will be paid to the methodological orientation adopted and the choice of research design.

### 5.5.1 *Methodological orientation*

The methodological orientation adopted for the purposes of this research is a qualitative orientation. Qualitative research according to Riege (2003:5) is suitable for revealing complexities and providing in-depth insights into a phenomenon. Furthermore, Cresswell (1994:21) reflects that qualitative research is useful for exploratory research, which this study is. Organisations such as Unilever (2002) conducted broad research in 2002 into youth trends, but focused on the so-called “haves” (affluent youth). However, it becomes even more important to investigate the so-called “have nots” in order to gain a deeper understanding of taking into account their sheer numbers, growing financial power and emerging economic influence. Furthermore, many marketers have been slow to focus on the young adult market, but have preferred to concentrate on the baby boomers. The South African environment in which the urban young adult emerging market find themselves is ever changing and there is thus a need to gain insights into the shifting motivations, attitudes and behaviours of this market, especially towards cellular phones as an m-commerce application as Haig (2002:95) stipulates that SMS is the youth’s favourite form of communication.

### 5.5.2 *Research design*

The target population of the research is the urban young adult emerging market in South Africa. From this target population, sixty-one respondents were selected via purposive (judgmental) sampling. This involves selecting respondents based on the fact that they are representative of the population (Dillon, et al., 1993:229). Various filters are used to ensure that the respondents qualify to represent the urban young adult emerging market. All respondents needed to be urban (for the purposes of this study, they had to reside in the greater Johannesburg region), between the ages of nineteen to twenty-four, daily cellphone users and part of the emerging market. This translated into the respondents fitting into LSM 4-6. Living Standard Measures is a segmentation tool often utilised in South Africa according to SAARF (Anon., 2005).

Six focus group interviews and ten in-depth interviews were administered in the field. For example, some of the focus groups were held at Jabavu community centre in Soweto. These designs were selected as focus group interviews allow for first-hand experience of how respondents think and feel about a phenomenon. (Dillon et al., 1993:135) while Videcnik (2002) states that in-depth interviews are particularly suitable for gaining information from youths.

A pilot study was used to ensure the validity and reliability of the research conducted. A focus group and in-depth interview show that all the topics on the moderator’s discussion guide and the questions posed are fully understood, and no comprehension problems occurred.

The data was analysed by using the Morse and Field approach that consists of four steps: comprehending, synthesising, theorising and recontextualising (De Vos, 1998:341). During the synthesising component, three categories were identified based on the focus group interviews and in-depth interviews. They revolve around the relevance, relationship and usage of cellular phones as an m-commerce application in the urban young adult emerging market in South Africa.

## 6. FINDINGS AND INTERPRETATION

### 6.1 Relevance

One of the answers that reflected a unanimous feeling in the focus groups in this regard is that it is not that cellphones are relevant; it is rather that they have become relevant. The sentiment expressed encapsulated the idea that “we’ve got used to having it around. Like a girlfriend”. There was significant consensus among all the focus group respondents that cellphones are relevant to the lives of young adults in South Africa, as a necessity. The comments made included, “If I have my cellphone and wallet, I have everything” and “I cannot go a day without my cellphone. It is everything”. Various reasons are given to justify such statements, with the most prevalent being that the user is continually connected and can thus partake in conversations. The cellphone has become an everyday means of interaction and communication.

This is of particular relevance to the African continent as conversation and storytelling are valued in African culture, according to Weidemann (2003). Another outcome of this ability to communicate and means of expression is that it reflects the process of democratisation that has occurred in South Africa. Mogotsi (2004) offers that cellphone usage in the emerging youth market is not primarily about the m-commerce function thereof, but the validation of being part of a new era in technology. This author believes that to the emerging market this means that they “are ‘in’ – and now have the power to go places and be a part of this new world that is very different to the world of their parents”. Just as the global market has been influenced by technology, so too has this market and this could only have been achieved through access to ICTs, however limited. Consequently, the cellphone has become an expression of self-identity (Kraushaar, 2004). This is supported by Halberstadt (2002) who states that cellphones are mainly used for broad communication purposes and not for the processing of business transactions. This is perfectly aligned with the definitions of wireless communication as the emphasis is on the transmission of data and information in that business transactions are not concluded. It would seem as if the urban young adult emerging market is embracing wireless communication as opposed to m-commerce per se. Similarly, Cousins (in Bührmann, 2002:58) states that m-commerce, as a form of business, is not happening at a significant rate mainly, due to technological constraints.

Besides this emphasis on an oral tradition, family contact is also revered in Africa. The cellphone has become a means of socialisation. In certain communities, Manual (in Anon., 2003e) identifies the development of the single-owner-multi-user concept. However, the focus group findings do not reflect this, as all but one respondent possessed their

own phone that was solely used by that individual. Furthermore, the majority of people in the respondents' immediate household also have their own cellphone, so if there are six members in this household there are six cellphones. Due to the fact that many families in this emerging market are geographically dispersed (for historical reasons), cellphones become a means of bridging the distance barrier. Consequently, the respondents indicate with complete agreement that they can be kept informed about the daily happenings around them. Therefore, cellphones are referred to as "techno-gadgets" - a positive association for this market segment. This is empowering and important to people who do not have access to the other technology as reflected by Mogotsi (2004) as "I feel like I'm part of the world - part of my generation".

Another shared response was that cellphone communication is an easier, faster, less expensive and more convenient form of communication, especially in comparison to the Internet. Once again, the majority sentiment reflects that the cellphone is valued as a means of mobile communication as, for example, "I can even phone when in bed". Of particular relevance to this emerging market is the fact that cellphones provide the user with a greater degree of privacy than landline communication and this generates a sense of independence and freedom from their parents. A possible reason for this finding is that many households consist of six to eight members (often due to money and space constraints) so the mobility of a cellphone gains importance (Mogotsi, 2004). Thus, in pure terms, the m-commerce characteristic of ease and convenience deals with transactions across boundaries. However, ease and convenience in the context of this market are about communication across boundaries.

Contrary to expectations, only one respondent out of all the focus groups and in-depth interviews mentioned security as an issue of why cellphones are relevant in young adults' lives. This is surprising, taking into account the current South African context.

When asked how cellphones can be made more relevant to them as users, the responses equally reflected both functional and lifestyle issues. However, with regard to functional features, emphasis is on the actual cellphone device in comparison to cellphone technology that would improve connectivity. For example, the respondents want cellphones that are waterproof, do not break if dropped, change colour, and have longer battery life and a diary. The feature most desired is a built-in camera. Only one respondent out of all the focus groups indicated the need for Bluetooth technology.

Regarding lifestyle issues, females in the focus groups, as if with one voice, specify that the cellphone needs a mirror as part of it to make it more relevant in their lives. Furthermore, features relating to HIV dominate, for example, having a place for a condom on the cellphone or being able to conduct an HIV test via the phone. The latter comment must be contextualised in South Africa as HIV/Aids is a real challenge facing this market in particular. A total of 97% of the black youth market in South Africa is fearful of HIV/Aids and 72% knew someone who had died of Aids (Unilever, 2002).

## 6.2 Relationship

The most dominant indication of the type of relationship that users have with their cellphones is characterised by the perception that cellphones are an integral part of their lifestyle. This sentiment is reinforced by Centaur Communications who believe that this lifestyle orientation is due to the fact that there is intimacy, resulting from the nature of the product (Anon., 2002b). Service providers in South Africa are only too aware of the need and importance of lifestyle branding. All three of the service providers have products aimed specifically at the youth market. For example, Vodacom introduced per-second billing with the launch of their 4U campaign aimed specifically at the youth market. The positioning revolves around “make every second count” as research findings of Logistix Kids (Kraushaar, 2004) show that the youth are very short-term focused, living for the moment. Similarly MIN has the “Pay as you go” product that offers the subscriber per-second billing from the first second and free connection. Cell C has a product aimed at the youth market called CY, which provides the subscriber with, for example, ZAR 20 free airtime, ten free SMSs per month and five ring tones or logos for free.

When asked what four items they would take to a desert island with them, there was not a single focus group that did not indicate that they would select not just a cellphone but their cellphone. In fact, it is the first spontaneous item identified in four of the six focus groups. Similarly, in the application of another projective technique namely that they are to hold the party of the year and could invite any brand that they wished, all the focus groups include on their guest list either a brand of cellphone (the majority mention Nokia) or a local service provider. This finding is in line with the comment of Youth Mind and Mood (2001) that brands that foster aspiration and youth identity tend to be more successful.

When asked what a cellphone says about a person, the most common responses revolved around the following:

- Fashion – it is said that a cellphone is a statement of fashion and status. With regard to the former, a respondent offers that, “clothes and cellphones say it all”. In the words of Mogotsi (20004), the youth market perceive a cell phone as a fashion accessory and similarly Kraushaar (2004) adds that a cellphone is seen as a form of visual branding – a means of self-expression. Only two respondents of all the focus groups rejected the notion that a cellphone is a fashion statement, but purely a functional necessity. Another comment made indicates that having a cellphone is “hip and happening”. The respondents identified a current trend, namely that hats and clothes are being designed and developed to facilitate the placement of a cellphone. Therefore, cellphones are an integral part of youth culture, specifically the “cool” culture.
- Background – “It is a statement of background”, one respondent expressed. For example, it is a general perception among this market segment that if the user possesses a Nokia 3310, this clearly indicates that this person lives in a “Ko kasi” (township). Similarly the Nokia 3310 is also referred to by a Zulu phrase - “Mina ngi hlala e Soweto” which translates to “I live in Soweto”. In other words, a Nokia 3310 is associated with “township” living.

- Status – it should be noted that a cellphone is seen as a status symbol only when it has the latest cellphone technology. Zwane (in Anon., 2003i) adds that cellphones are linked to both social status and financial well-being. Mogotsi (2004) elaborates on this topic and says that the cellphone being utilised does not have to be the most expensive, but to be “...in the sphere of influence you must have the coolest gadget”. It is “cool” to display such cellphones despite the fact that visibility heightens a security risk. Furthermore, the in-depth interviews show that half of the respondents do not compare their cellphones with those of their friends. However, most of respondents feel that their friends notice what kind of cellphones they own.
- Connectivity – the respondents believe that being in contact makes an individual sociable and acceptable as it becomes a sign of having “many friends”. This sentiment is best expressed when one respondent says that if people know that he has a cellphone, it creates the perception that “I know people” while another stated that “It gives you attitude”. Furthermore, if an individual does not receive SMSs, it is an indication that they are socially rejected.

To gain further insight relating to the relationship issue, the question “What kind of cellphone would you be and why?” is posed. It results in the following findings. Across all focus groups the question is answered in terms of a brand name or specifications of the cellphone model. Nokia is the brand mentioned most often while the knowledge of the respondents pertaining to the make and model is very detailed. This learning is in line with Logistix Kids’ (Kraushaar, 2004) findings that indicate that the youth market is especially “techno-literate”. Not only are the markets “techno-literate” but they also possess a “high brand IQ”, i.e. young people are brand smart (Youth Mind & Mood, 2001). Besides being able to identify the make and models correctly, their knowledge about the resultant functions of the specifications is detailed and correct. One brand that consistently receives negative commentary is Bosch, because the specific cellphone is both cumbersome and available as part of a sales promotion for a large furniture manufacturer, the target market of which is the emerging market. It is not seen as “cool” to obtain a cellphone in this manner. This needs to be seen in the light of Logistix Kids’ (Kraushaar, 2004) research findings that state that the emerging youth market is very ambitious and aspirational and hence brands play a very important role in their lives. In other words they know what the latest and “coolest” are even if they cannot afford them.

Furthermore, the respondents verbalised an eulogy that they would offer at their cellphone’s funeral. These findings reflect a strong emotional bond between the cellphone user and the cellphone. The most dominant theme identified revolves around friendship, for example, comments such as “the best friend I ever had”. Another theme that occurs frequently is the fact that the cellphone had been an integral part of their life. The statements made here include “It was with me through thick and thin”, “There goes my life” and “You were my everything”.

### 6.3 Usage

Almost every respondent indicates that they use the prepaid subscription system as post-paid would disqualify access as many do not have established credit histories. This is in



line with the fact that the Vodacom prepaid customer base is currently at 7.6 million people (out of a total of 10 million) (Anon., 2004b:60). Rose (2002:34) supports this latter statement by showing that prepaid services remove barriers of ownership. Furthermore, the majority of these youth use the Vodacom service provider. Additionally, the dominant cellphone brands utilised are Nokia and Motorola, with GSM capabilities only, which limits the full application of instant connectivity. Nokia is also perceived to be the best quality brand. This is in line with the Youth Mind and Mood (2001) reports key learnings that international brands tend to dominate the local scene in South Africa. Similarly, The Alternative Consultancy (2003) offer that there is also a trend among the national, urban, African youth culture to purchase more expensive brands (often an association ascribed to international products). The respondents generally spend ZAR 29, which is the price of a single airtime voucher per month. In order to make this purchase and due to a lack of disposable income, small luxuries are sacrificed to afford cellphone airtime. The in-depth interviews reveal that most respondents have had their cellphones for between two to three years.

The sample also indicated numerous conventions in the use of cellphones:

- Making and receiving calls - generally speaking, the two main usages of the cellphone involve receiving calls (vs. making calls) and sending SMSs. Due to financial limitations, the focus group respondents explained that it was cheaper to chat via non-voice than by voice systems. Also, the in-depth interviews show that between five to fifteen SMSs are sent and received in a day under the global average. Relating to SMSs, the MobileSMS report offers that the prepaid system was a catalyst for the growth in SMS usage and that this kind of wireless communication is successful as it is about "... simple person to person messaging as people told each other how they were feeling and what they were doing ..." (Anon., 2003j). Cellphones thus facilitate social networking.

Similarly, Msindwana and Mulder (2002:63) explain in their article that SMS usage was given impetus by the youth market as they embraced texting as a vehicle to chat and share information. Furthermore, the authors state, "...this is a critical way of being in the know". This kind of interactivity is about dialogue and does not reflect the m-commerce interactivity relating to transactions.

The most noticeable use of the cellphone is what is referred to as the "Please call me" service. The "Please call me" service is a free SMS (however there is a limited number of these SMSs that can be sent per day), notifying the recipient to call the sender. The reason why this can be free is because placing advertising below the request generates profit. Among this young adult emerging market, a unique "language" has developed that this market refers to as their "secret code". An example of the latter is where one "Please call me" SMS represents "hello". No response is expected. Two consecutive "Please call me" SMSs is an indication that the recipient is in the sender's thoughts. Once again no response is expected. Three "Please call me" consecutive SMSs is a true request to contact the sender. Another manipulation of the "Please call me" concept occurs when MIN users are able to customise the message to include their name, i.e. "Please call Lerato" as opposed

to "Please call me". What transpires is that the respondents substitute their name with greeting messages. For example, a "Please call Lerato" SMS becomes a "Please call hello". This phenomenon is in line with De Kerckhove's findings (2002), as "Texting is now a recognised cultural phenomenon ... a lingua franca in its own right". This also represents a crude manner of customisation. Multi-media messaging is not utilised although picture messaging is used in SMSing. Respondents indicate that due to the prohibitive costs associated with entering competitions via SMS, they do not partake in this form of competition. This is in line with Nevin's finding (2002:26) that one of the biggest problems surrounding, for example, the implementation of faster connectivity is money. The growth of the use of SMS in this market is directly related to the advantages associated with mobile messaging.

Users will, however, make calls, only in circumstances that are perceived as urgent. SMSs received and sent are mainly to and from family and friends, as indicated during the in-depth interviews. Calls received from respondents' parents deal mainly with "whereabout" issues. The reason for this is that many of the respondents live in another locale to their parents and very often this is the only means of daily contact. The Alternative Consultancy (2003) explains that many individuals in the emerging youth market live in what is referred to as extended dwellings, meaning that the household members would not necessarily be direct family members. Thus, contact between direct family members is often facilitated by cellphones. This interaction is of particular importance in the emerging youth market as the Youth Mind and Mood research report (2001) found that family is central to these young people's lives as they provide comfort and security in the constantly changing South African environment. Marketers have picked up on this as Cell C has for example developed an offering where four frequently dialled numbers would be discounted each time they are contacted. Vodacom has also launched a product called Look 4 me (as part of their 4U stable), which is aimed at parents as a means of establishing the whereabouts of their children. This issue relates to reachability in a communication context and not l-commerce per se within a traditional m-commerce context. Similarly, while security as a characteristic of m-commerce in general encapsulates transactional security, security here refers to family security.

- Male vs. female usage - there was general consensus among the respondents that usage of the cellphone differed between males and females. It is perceived that males "chatted" less but used their cellphones "to pick up women". In this regard, a specific etiquette relating to "Please call me" is that male users do not initially send "Please call me" messages to the women that they are interested in as it is seen as being "not cool". Another point raised is that females chat and gossip more than their male counterparts. This finding is also recorded by Wagenaar (2003) who reports that 52% of male teens use their cellphones to get a date while 47% of female teens used texting to gossip. The majority of respondents also indicated that females were more inclined to spend money on cellphone accessories than males.
- Games - gaming was limited to the games provided on the cellphone. By far the minority of respondents downloaded games from the Internet due to cost limitations.

- Internet vs. cellphone - all the focus group respondents say that they prefer cellphones above the Internet as a means of communication. The primary reason offered relates to accessibility. The emerging youth markets typically want instant gratification according to Logistix Kids (Kraushaar, 2004) and thus accessibility is of primary importance to them. By far the minority of the respondents have access to the Internet at home and thus the cellphone as a communication device is seen as being more convenient. Dix (2003) adds that access to the web has dropped to 1,3% among Black South Africans. Pertaining to this, one respondent states that, "Time spent online depends on the point of access". The findings of the research do not reflect the shift towards an increased use of wireless application as is happening in other countries. A specific point mentioned more than once is that in the evening and early hours of the morning when they are awake they do not have access to the Internet, but cellphone access is instant. Taking this lifestyle into account, Cell C launched Club Chat which is specifically aimed at the youth market. For example, one element thereof is that all calls made between 23:00 and 04:00 to other Club Chat members are charged at a nominal fee per minute. This takes into account that young adults are characterised by a fast-paced life according to Logistix Kids (Kraushaar, 2004).

However, the Internet is utilised to access service provider websites with the majority of the respondents stating that they only use these websites to send free SMSs. A secondary reason for visiting these sites is to download ring tones. This is important as it is seen as a means of personalisation. In other words, this market uses the Internet for a specific purpose, mainly information and thus their use of digital technology does not reflect the third wave of e-commerce. According to Logistix Kids (Kraushaar, 2004), the ability to personalise is of particular importance to the young adult markets as they become more and more characterised by individualism. Using the Internet in this manner comes the closest to a soft commerce application. However, it is not true soft commerce as there is no processing of a financial transaction via this medium. Furthermore, this kind of personalisation tends to be device personalisation and not transactional personalisation.

- Answering the phone – the respondents indicate frustration when cellphones are not answered immediately or SMSs are not responded to immediately. This is identified as "not cool" etiquette. By not answering, replying or switching off your cellphone, the message that the user is sending is that "you are ignoring me and that is rude", and that "You don't want to talk to me". The user is expected to be there always and always be connected by the very nature of what the cellphone represents. This need for an "always on" user reflects, to a large degree, the ubiquitous characteristic of m-commerce.

## 7. CONCLUSION

The overarching finding of the study is that the cellular phone as an m-commerce application in this market is undoubtedly one of communication and not commerce, because:

- This market's emphasis is on access to the technology and not about ownership of the technology. One reason for this is that connectivity brings about the localisation of globalisation. This sentiment is supported by Ayob, who states that, "By focussing on key customer needs of m-commerce rather than the technology, we've shown it's possible to do m-commerce without turning your cell phone into a web browser, or needing any special devices" (Anon., 2001a). Consequently, connectivity is about interactivity, self-identity and bridging distance barriers. This access to technology, however limited, has both democratised the market and impacted positively on their self-esteem as they have become an authority on something many of their parents are not. As Hall (2002:1) has stated, "In Africa, a unique cell phone culture has developed that combines necessity with traditional African culture and as such boosts the usage of the cell phone as a means of communication".
- The popularity of this type of communication is directly attributed to the fact that it is both relevant and resonates with the lifestyle of this emerging market. It is interesting to note that the predicted growth of cellphone usage has been made possible through the low-end prepaid subscriber base. It is important for marketers to remember that communication to this market will have to have a very strong lifestyle branding approach. As the findings found, the relationship between the users and their cellphones is influenced by the aspirational nature of this market. The cellphone becomes an outward sign and symbol of self-image for a brand literate market. This relationship with the cellphone is an overwhelmingly emotional one.
- Relating to usage convention, the primary finding is that technology often is pushed by industry, while this market has shown that the cellphone has brought about a kind of a "grassroots revolution" in terms of the way the cellphone is used and applied. While this market might be "unplugged", due to the emerging nature thereof, the foundations of true mobile commerce have been instilled and many are future "plugged-in" consumers. This market is growing and is not currently saturated in terms of wireless communication tools and thus the benefits to both business (financial) and user (empowerment) alike are endless. Furthermore, the evidence indicates that growth in consumption is occurring within the non-voice component of wireless communication. The cellphone represents a version of the Internet to this market.

In conclusion, the traditional characteristics of m-commerce do not occur and thus a cellular phone as an m-commerce application in the emerging youth market in South Africa is adapted to this developing context.

## References

- ANON. 2000. Wireless ads favour the text message route. *Marketing Week*, 23(33). [Web:] <http://0-proquest.umi.com.raulib.rau.ac.za> [Date of access: 19 Mar. 2004].
- ANON. 2001a. Soweto the m-commerce capital of SA. [Web:] <http://www.cointel.co.za/soweto.htm> [Date of access: 14 Nov. 2003].
- ANON. 2001b. South Africa country profile. [Web:] [http://www.itu.int/itu-ict/update/pdf/update\\_3\\_01/pdf.pdf](http://www.itu.int/itu-ict/update/pdf/update_3_01/pdf.pdf) [Date of access: 19 Mar. 2004].

ANON. 2001c. The e-business handbook: the 2003 review of innovation at work in South African business. Cape Town: Triologue.

ANON. 2001d. M-commerce: exploring the opportunities. Accenture.

ANON. 2002a. Dial m for mobile: key success factors in the Wireless World. [Web:] [http://www.line56.com/research/download/rolandberger\\_dial\\_m\\_for\\_mobile-us.pdf](http://www.line56.com/research/download/rolandberger_dial_m_for_mobile-us.pdf) [Date of access: 25 Aug. 2002].

ANON. 2002b. e-volve: 'Txt spam' signals trouble for SMS marketing. *Marketing Week*, 49. [In ProQuest : <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].

ANON. 2003a. Statistics of cellular in South Africa. [Web:] [http://www.cellular.co.za/stats/statistics\\_south\\_africa.htm](http://www.cellular.co.za/stats/statistics_south_africa.htm) [Date of access: 21 Nov. 2003].

ANON. 2003b. Mobile phone owners rise by a third in Africa and Middle East. *New Media Age*, Apr. 17 [In Proquest : <http://www.0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].

ANON. 2003c. Marketing with text. [Web:] <http://www.biz-community.com/Article/Print.aspx?1=196&c=16&ai=2168> [Date of access: 14 Nov. 2003].

ANON. 2003d. Statistics for mobile commerce. [Web:] <http://www.epaynews.com/statistics/mcommstats.html> [Date of access: 19 Mar. 2004].

ANON. 2003e. Africa at large: mobile phones in vogue. [Web:] <http://www.afrika.no/Detailed/4532.html> [Date of access: 19 Mar. 2004].

ANON. 2003f. Business: ain't no mountain high enough; African mobile telephones. *The Economist*, 369(8348). [In ProQuest : <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].

ANON. 2003g. Vodacom South Africa. [Web:] <http://www.cellular.co.za/africa/south-africa/vodacom/vod-details.htm> [Date of access: 14 Nov. 2003].

ANON. 2003h. The e-business handbook: the 2003 review of innovation at work in South African business. Triologue: Cape Town.

ANON. 2003i. Africa at large: mobile phones in vogue. [Web:] <http://www.afrika.no/Detailed/4523.html> [Date of access: 19 Mar. 2004].

ANON. 2003j. SMS history zone. [Web:] <http://www.mobilesms.com/history.asp> [Date of access: 19 Mar. 2004].

ANON. 2003k. The world fact book. [Web:] <http://www.cia.gov/cia/publications/factbook/prints.sf.html> [Date of access: 19 Mar. 2004].

ANON. 2004a. Vodacom, MTN report strong subscriber growth. *Southern African Wireless Communications*, 8(5):5, Jan/Feb.

ANON. 2004b. At the helm. *Vodaworld Magazine*, Autumn.

- ANON. 2005. South African Advertising Research Foundation. [Web:] <http://saarf.co.za> [Date of access: 26 Apr 2005].
- BECK, N., LYNCH, P.D., & WADE, M. 2001. Future wireless trends. Accenture.
- BODNARCHUK, R. 2003. The next chapter in the text-messaging saga. *Marketing Magazine*, 108(15):15-16, April. 21. [In ProQuest : Wire feed: <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 3 Mar. 2004].
- BÜHRMANN, A. 2002. The ubiquitous mobile handheld device. *Business 2.0*.
- CANT, M. C & MACHADO, R. 2001. Marketing success stories. 4th ed. Johannesburg: Oxford University Press.
- CASCIO, J. 2004. Leapfrogging. [Web:] <http://www.mobile-weblog.com/archives/leapfrogging.html> [Date of access: 26 Apr 2005].
- CELLULAR ONLINE. 2005. News. [Web:] <http://www.cellular.co.za> [Date of access: 19 Apr 2005].
- COWLETT, M. 2002. Text message to build youth loyalty. *Marketing*. [In Proquest: <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].
- CRESWELL, J. 1994. Research design: qualitative and quantitative approaches. California : Sage publications.
- DHOLAKIA, R. R. & DHOLAKIA, N. 2002. Mobility and markets: emerging outlines of m-commerce. *Journal of business research*, 5828:1-6.
- DE KERCKHOVE, A. 2002. Unleashing the power of mobile marketing. M-commerce world. [Web:] <http://www.mobilecommerceworld.com> [Date of access: 7 Mar. 2002].
- DEVOS, A. A. 1998. Research at grass roots: a primer for the caring professions. Van Schaik: Pretoria.
- DILLON, W., MADDEN, T. & FIRTLER, N. 1993. Essential of marketing research. Boston: Irwin.
- DRUCE, C. 2002. Mobile location revenue to rocket. [Web:] <http://www.electronicweekly.co.uk/issue/dailyview.asp?vpath=/articles/2002/08/20> [Date of access: 30 Oct. 2003].
- DUNCAN, R. 2001. Wireless integration: simplicity and value. *Telecommunications Americas*, 35(5):65. [In Proquest : <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].
- DURLACHER. 1999. Mobile Commerce Report. [Web:] <http://www.durlacher.com> [Date of access: 19 March 2004].
- GIUSSANI, B. 2001. Roam: making sense of the wireless Internet. London: Random House.
- GUPTA, P. 2001. The M-commerce Revolution. [Web:] <http://www.bcrinternational.com/10ml121.html> [Date of access: 5 Nov. 2001].
- HAIG, M. 2002. Mobile marketing: the message revolution. London: Kogan.

- HANSON, S. 2003. The joys of text marketing. *ABI/INFORMGlobal*, 56(12):38, Jul.
- HALBERSTADT, L. 2002. Verbal communication with the author. Johannesburg.
- HANSON, S. 2003. The joys of text marketing. *ABI/INFORMGlobal*, 56(12): 38.
- JUNGAS, I.A. 2002. U-commerce: an experimental investigation of ubiquity and uniqueness. Athens: Georgia. (Dissertation – Ph.D.) 143p.
- KAUFFMAN, R.J. & TECHATASSANASOONTORN, A. 2001. M-commerce: research framework and issues. (Paper delivered as part of the 5th annual electronic commerce conference at the University of Minnesota on 26/27 Mar.) (Unpublished.).
- KRAUSHAAR, A. 2004. Verbal communication with the author. Johannesburg.
- LEE, P. 2002. Top five mobile and wireless technologies for business, 2002: maturing technologies now relevant for practical enterprise applications. [Web:] <http://www.deloitteresearch.com> [Date of access: 19 Mar. 2004].
- LEHNER, F. & WATSON, R.T. 2001. From e-commerce to m-commerce: research directions. [Web:] <http://www-mobile.uni-regensburg.de/publikationen.html> [Date of access: 29 Sep. 2002].
- LEVY, S & STONE, B. 2002. The wi-fi wave. [Web: <http://web5.epnet.com/delivery/asp?tb=1&ug=dbs+0%2C1%2C13+fic+0+1n+en-us+sic>] [Date of access: 20 Sep. 2002].
- LIGHTMAN, A & ROJAS, W. 2002. Brave new unwired world: the digital big bang and the infinite internet. John Wiley: New York.
- MÜLLER-VEERSE, F. 2002. Mobile commerce report. [Web:] [http://www.bwl.uni-mannheim.de/~broeker/white\\_papers/mcomreport.pdf](http://www.bwl.uni-mannheim.de/~broeker/white_papers/mcomreport.pdf) [Date of access: 29 Sep. 2002].
- MOGOTSI, K. 2004. Verbal communication with the author. Johannesburg.
- MSINDWANA, A. A. & MULDER, D. 2002. The use of SMS as marketing technique in Integrated Marketing Communication. *Communitas – Journal for community communication and information impact*, 7:61-86.
- NDIAYE, A. 2001. Electronic commerce in Africa: opportunities, challenges & GATS. [Web:] <http://www.aercafrica.org/publications> [Date of access: 25 Aug. 2002].
- NEVIN, T. 2002. Africa's new challenge: the mobile explosion and the Internet. *African Business*, 277:26. [*In* ProQuest : Feature: <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].
- NEUSTETTER, M. 2002. Pixels, position and popular culture: notes towards an understanding of an emerging digital aesthetic in South Africa. [Web:] [http://onair.co.za/mn/search\\_text.htm](http://onair.co.za/mn/search_text.htm) [Date of access: 19 Mar. 2004].
- NOLAN, S. 2003. Why the future of Africa is wireless. *Intelligence*: Nov.

- NYAMNJOH, F & HALL, J. 2002. Communication: the cellphone explosion in africa. *Global Information Network*, 12:1, Nov. [In ProQuest: Wire feed: <http://0-proquest.umi.com.raulib.rau.ac.za> [Date of access: 19 Mar. 2004].
- OHLSON, C. 2002. The evolution from e-commerce to mobile commerce – a glance at micropayments and its applications. [Web: <http://itpapers.zdnet.com/abstract.aspx?kw=e-commerce&x=40&docid=30847> [Date of access: 30 Mar. 2004].
- PASTORE, M. 2000. M-commerce gives way to m-games. [Web:] [http://www.cyberatlas.internet.com/markets/wireless/print/0,,10094\\_455141,00.html](http://www.cyberatlas.internet.com/markets/wireless/print/0,,10094_455141,00.html) [Date of access: 25 Nov. 2003].
- PENSTONE, K. 2003. Majoring in minors marketing. [Web:] <http://www.marketingweb.co.za> [Date of access: 19 Mar. 2004].
- RAO, S. S. 2000. E-commerce: the medium is the mart. *New Library World*, 101 (1154):53-59.
- RIEGE, A. M. 2003. Validity and reliability in case study research. *Qualitative market research: an international journal*, 6(2):75 (11p.). [In Emerald Insight: Full text, full display: <http://www.emeraldinsight.com>] [Date of access: 28 Sep. 2003].
- ROSE, R. 2002. Mobile phones: changing Africa's landscape. *New African*, 408:34-36, Jun. [In proquest : <http://0-proquest.umi.com.raulib.rau.ac.za>] [Date of access: 19 Mar. 2004].
- SHAPSHAK, D. 2003. From white elephant to giant usage. *The Mail & Guardian*, Mar. 6.
- STONE, K., MODEN, N. & KAY, G. 2001. M-commerce – more hype than substance? [Web:] <http://www.arthurandersen.com/research.html> [Date of access: 3 Mar. 2002].
- THE ALTERNATIVE CONSULTANCY. 2003. Summary of black youth trends 1992-2000.
- TREHAIR, G. 2003. Lucky chances. [Web:] <http://www.itweb.co.za/sections/features/sms/feature030210-2.asp> [Date of access: 19 Mar. 2004].
- UNILEVER. 2002. UCTUnilever institute of Strategic marketing – TrendYouth 1. Management summary.
- VAKNIN, S. s.a. Leapfrogging transition technology and development in post-communist Europe. [Web:] <http://samvak.tripod.com/pp121.html> [Date of access: 19 Apr 2005].
- VIDECNIK, M. 2002. Youth market research. [Web:] <http://www.graliteo.com> [Date of access: 15 Apr. 2003].
- WAGENAAR, P. 2004. Down to business. [Web:] <http://www.itweb.co.za/sections/features/sms/feature030210-3.asp> [Date of access: 19 Mar. 2004].
- WALLINGTON, K. Verbal communication with the author. Johannesburg.
- WEIDEMAN, R. 2003. Siyafunda, as sms text goes African. [Web:] <http://www.itweb.co.za/sections/quickprint/print.asp?StoryID=132134> [Date of access: 19 Mar. 2004].



WRIGHT, B. 2003. News on the go. *SA Computer Magazine*, 11(6):25-29.

YOUTH, MIND AND MOOD. 2001. FCB Headspace. September.