

Full Length Research Paper

The perceived service quality, satisfaction and behavioural intent towards cellphone network service providers: A generational perspective

D. J. Petzer* and C. F. De Meyer

Department of Marketing Management, University of Johannesburg, P. O. Box 524, Aucklandpark 2006, South Africa.

Accepted 15 June, 2011

The importance of providing customers with quality services in order to satisfy them and encourage future purchases is well documented in literature. Yet, the cellphone network provider industry of South Africa seems to be riddled with service quality problems. This study aims to determine different generations' perceived service quality of services and satisfaction levels with services provided by cellphone network service providers, as well as their behavioural intentions towards these providers. The study furthermore examines the correlations between these three constructs and uncovers significant differences between different generations. Data was collected from 2339 respondents by means of a self-administered questionnaire. Young Generation Y consumers perceive the service quality levels and service satisfaction levels of these providers as significantly lower than other generations. This is also true for their behavioural intent. Significant correlations also exist between the generations' perceived level of service quality they experience, their perceived level of satisfaction with, and their behavioural intent towards providers. This implies that providers should strongly focus their efforts on satisfying the needs, and improving the service satisfaction of young Generation Y consumers in order to retain them in the future. Providers should also vary marketing strategies based upon the differences uncovered between the generations.

Key words: Cellphone network service provider, baby boomer, Generation X, Generation Y, service quality, service satisfaction, behavioural intent

INTRODUCTION

The South African cellular industry is the fourth fastest growing cellular market in the world with every third call made being from a cellphone (Mbendi, 2010). The four main cellular service network providers in South Africa (Vodacom, MTN, Cell C and Virgin Mobile) are embroiled in a highly competitive market, which has been made even more competitive with the introduction of a fifth provider; 8ta. Over 80% of South Africa's population owns a cellphone, with the prepaid packages being preferred over contract packages (SouthAfrica.info, 2008).

The competitiveness of this market requires from

cellphone network service providers to develop and maintain a competitive advantage through the provision of quality services (Boshoff and du Plessis, 2009). Mbendi (2010) adds that the importance of providing quality services and encouraging future repurchase intentions cannot be underestimated, yet cellphone network service providers in South Africa have been known to provide poor levels of service. Cellphone network service providers thus need to understand that providing customers with quality services and satisfying their needs are essential components of their marketing strategy in order to ensure that customers will repurchase from the service provider in future (Saeed et al., 2009). These providers can also benefit from positive word-of-mouth and repeat purchases if customers are satisfied with the services they provide (Ryu et al., 2007). Koenderman

*Corresponding author. E-mail: dpetzer@uj.ac.za.

(2009) adds furthermore that the new generation of service offerings from cellphone network service providers (such as cellphone banking, internet access and mobile marketing) necessitates an in-depth understanding into customer expectations and trends.

Hoyer and MacInnis (2010) explain that various internal and external factors influence consumers' expectations and their decision-making processes. The cultural environment in which consumers find themselves specifically has an influence on how and why they make decisions, including repurchases decisions. Elements such as age, gender, social class and reference groups affect consumers' values and lifestyles which influence consumption patterns. According to Munnukka (2007), demographic variables such as gender, age, culture and usage patterns are often used to segment customers, but research in these variables from a services perspective has been limited. Munnukka (2007) continues that research has found that demographic variables (especially age, race and gender) influence consumers' attitudes towards technology and impacts their future intentions and actions. It therefore, stands to reason that consumers belonging to different generations (different age groups) have different needs and expectations from their cellphone network service providers. Age is also a critical variable impacting customer satisfaction levels and repurchase intentions (Anderson et al., 2008; Kumar and Lim, 2008). Marketers need to develop various marketing strategies to target different generations or age groups (Hoyer and MacInnis, 2010). From previous studies conducted it can be noted that age does influence consumer purchasing patterns and their behavioural intent towards a service provider where consumers from various generational groups exhibit different consumption patterns (Jordaan and Ehlers, 2009; Kumar and Lim, 2008; Munnukka, 2007; Jorgensen, 2003), yet few studies have been conducted from a South African cellphone network service provider perspective.

The purpose of this article is to investigate and compare the perceptions of different generations of consumers (baby boomers, Generation X, adult Generation Y and young Generation Y consumers), regarding perceived service quality levels, service satisfaction with their cellphone network service provider as well as their behavioural intent towards their cellphone network service provider.

LITERATURE REVIEW

The literature background starts with a discussion of generational theory with a focus on the various generations to which consumers typically belong. This section also provides an overview of the unique characteristics typically associated with these generations and provides some insight into their cellphone usage habits. As this article focuses on three constructs

namely, perceived service quality, customer satisfaction and behavioural intent, each of these, and the relationships between them are also discussed in more detail. The hypotheses formulated for this study also flow from the literature background.

Generational theory

As pointed out in the introduction, Munnukka (2007) and Jorgensen (2003) specify that age has a large impact on the use of technology (such as cellphones) and that each age group have distinct differences which will cause differences their future purchasing behaviour. Hoyer and MacInnis (2010) continue that it is beneficial for marketers to segment consumers according to their age as people from the same generation tend to show similar consumption patterns due to their shared life experiences and needs. For this reason, it is necessary to determine the characteristics of each age group.

According to Hoyer and MacInnis (2010) and Schiffman et al. (2008) four main generations can be identified by marketers, namely seniors (consumers over the age of 65), baby boomers (born between 1946 and 1964), Generation X (1965 -1976) and Generation Y (1977 - 1994) consumers. For the purposes of this study, only baby boomers, Generation X and Generation Y consumers will be included and compared as these three age groups (generational cohorts) are the main users of cellphone services (Kumar and Lim, 2008; Schiffman et al., 2008). Each generational cohort is furthermore discussed. According to Grewal and Levy (2010) and Hawkins and Mothersbaugh (2010), baby boomers are self-centred, individualist, with leisure time being of great importance. They are brand loyal and purchase for indulgence (Schiffman et al., 2008). Baby boomers are also an important target market for cellphone network service providers as they are experienced users of technology and have been part of technological advancements through their lifetime (for example microwaves and the Internet). Baby boomers mainly use cellphones for make voice calls and do not regularly use cellphones for data downloads or SMSs compared with the other generations (Kumar and Lim, 2008).

Hoyer and MacInnis (2010) state that Generation X consumers take time to research purchases and require marketers to customise offerings to their personal tastes. This cohort purchase electronic gadgets such as the newest cellphones and other technologically related products. They exhibit high levels of spending power as they tend to get married later in life. Generation Xers require convenience but are cynical consumers and are unlikely to believe the advertising claims made by businesses (Grewal and Levy, 2010; Schiffman et al., 2008).

Generation Y consumers are technologically savvy and use the latest technology to communicate and shop. These consumers are characterised by their

independence, assertiveness, innovativeness and curiosity (Hawkins and Mothersbaugh, 2010; Hoyer and MacInnis, 2010). Jordaan and Ehlers (2009) explain that Generation Y use cellphones as a medium of individual expression through personalised ringtones and screensavers and demand up-to-date technology.

Due to the wide age range of the Generation Y cohort as well as their diversity in cultural and social activities, marketers often separate this group into Generation Y adults, Generation Y teens and tweens where each group should have their own marketing strategy (Kotler and Armstrong, 2010; Jorgensen, 2003). Kumar and Lim (2008) suggest that cellphone service providers should develop different marketing strategies for Generation Y adults (aged 15 – 23) and younger Generation Y consumers (aged 15 – 24) as they differ in their cellphone usage. The younger Generation Y consumers 'outnumber all other users in terms of minutes used, number of calls placed, messages sent/received and wireless data transmitted/received' (Kumar and Lim, 2008).

Extant literature propagates that significant differences do exist between the generations with regards to how they perceive the world around them, their consumer behaviour in general and more specifically in terms of their cell phone usage habits (Jordaan and Ehlers, 2009; Kumar and Lim, 2008; Munnukka, 2007; Hamilton, 2003; Jorgensen, 2003). As Munnukka (2007) and Jorgensen (2003) explain, the variations within each generation pertaining to their consumer behaviour and in particular their expectations, service perceptions, customer satisfaction and behaviour intent requires that service providers need to understand each cohort and determine their differences to make managerial decisions. Based on the discussion above, the following hypotheses can be formulated:

H1: The generations perceive the level of service quality cellphone network service providers provide significantly different.

H2: The generations perceive the level of service satisfaction they experience from cellphone network service providers significantly different.

H3: The generations exhibit significantly different behavioural intentions towards cellphone network service providers.

Service quality

As suggested by literature, providing customers with quality services presents the best opportunity for businesses to obtain a sustainable competitive advantage (Boshoff and du Plessis, 2009). Wang and Lo (2002) add that due to customers' needs changing and evolving, service quality needs greater attention. Dagger et al. (2007) explain that the perceptions customers' have of the service quality refers to the impression that they

have about the overall service provided by the service provider. Dean (2004) continues to describe service quality as the way in which customer's assess the service encounter in terms of whether the perceived performance of the service provider has met or exceeded the customers' service expectations. Customer expectations and perceptions have been found to be the main antecedents of service quality (Lee et al., 2001). Service providers need to understand that customers develop their expectations through their previous dealings with the service provider or through their dealings with other service providers which implies that service providers need to continually monitor their service levels and ensure that they meet customer expectations (Kumar and Lim, 2008).

Zeithaml et al. (2009) explain that consumers evaluate service quality according to five main dimensions (reliability, responsiveness, assurance, empathy and tangibles). In most cases consumers evaluate these five dimensions and formulate their expectations and perceptions of the overall service quality provided by the service provider, by combining the five dimensions. As consumers have different needs and expectations pertaining to service quality service providers need to identify that different market segments need different marketing strategies as customers will differ in terms of their service expectations (Anderson et al., 2008). Service providers need to ensure that they meet customers' expectations through the provision of quality services as this will impact on customers' satisfaction levels pertaining to the services (service satisfaction) received as well as their future repurchase intentions (Zeithaml et al., 2009).

Service satisfaction

Although many researchers use the terms "service quality" and "customer satisfaction" interchangeably, these concepts are different, yet connected (Zeithaml et al., 2009). Palmer (2008) as well as Vlachos and Vrechopoulos (2008) state that divergent results have been presented in studies conducted on service quality and service satisfaction. Some studies note that service quality is an antecedent of service satisfaction (Cronin and Taylor, 1992), while others found the reverse relationship (Bitner, 1990). Taking this into account, however, there seems to be a definite relationship between service quality and service satisfaction that should not be underestimated (Palmer, 2008). Wang and Lo (2002) mention that satisfaction needs to be an important goal for service providers as this can influence their profitability and sustainability.

For purposes of this study, service satisfaction is defined as the customers' evaluation of the service provided by the cellphone network service provider in terms of how it has met or exceeded the customers'

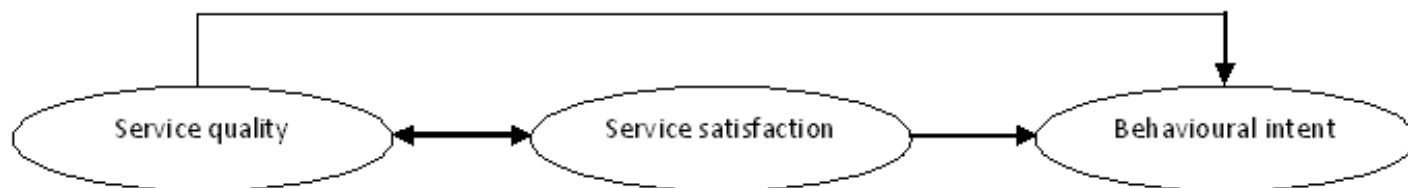


Figure 1. The relationships between service quality, service satisfaction and behavioural intent.

Source: Adapted from Dagger et al. (2007). *The arrows in this figure represent the relationships between constructs.

expectations (Zeithaml et al., 2009). It is important to note that customers will evaluate each service quality dimension provided as well as the overall satisfaction they experience due to their interaction with the service provider over a period of time (Bodet, 2008; Saeed et al., 2009; González et al., 2007). Only if customers are satisfied with the services offered by the service provider, will they be less receptive to competitors' offerings (Torres-Moraga et al., 2008) and will they consider repurchasing from the service provider and will they be willing to form a long-term relationship with the service provider (Kumar and Lim, 2008).

Behavioural intent

Service satisfaction has furthermore a major impact on the behavioural intent of consumers as only satisfied consumers will be committed to the business in the long-term and will spread positive word-of-mouth to others (Lu and Seock, 2007; Ryu et al., 2007). Wang and Lo (2002) add that service satisfaction drives favourable behavioural intentions and that behavioural intent is often seen as a predictor of future purchases (Torres-Moraga et al., 2008; Saeed et al., 2009; González et al., 2007).

Schiffman et al. (2008) explain that behavioural intent determines the 'likelihood that consumers will act in a certain way in the future'. Saha and Theingi (2009) elaborate on this definition by defining behavioural intent as the probability of customers performing a certain behavioural act such as spreading positive word-of-mouth about the service providers to others; repurchase intentions and loyalty towards the service provider. Service providers rely on customer repurchasing their service offerings in order to remain competitive over a long-term period of time (Torres-Moraga et al., 2008).

The foregoing discussion provides insight into the relationships between customers' perception of service quality, the service satisfaction they experience and their ultimate behavioural intent. The following figure based upon the work of Dagger et al. (2007) provides a graphic illustration of the relationships (correlation or association) between the three constructs (Figure 1).

Based on the differences in perception and consumer behaviour uncovered between the different generations,

the universality of the relationship between the three constructs in terms of the different generations are investigated. Based on this statement and the discussion above the following hypotheses were formulated:

H4: There is a correlation between the different generations' perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers.

H5: There is a correlation between the different generations' perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

H6: There is a correlation between the different generations' perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

PROBLEM STATEMENT, OBJECTIVES AND RESEARCH HYPOTHESES

South Africa has one of the largest growing cellular markets in the world and is characterised by intense competition between the cellphone network service providers Vodacom, MTN, Cell C and Virgin Mobile (Mbendi, 2010). The cellphone network service providers in South Africa are therefore competing fiercely for market share in a fairly saturated market (Mbendi, 2010). In order to remain profitable in this competitive market, cellphone network service providers need to ensure that they provide customers with good quality services that will meet and exceed customer expectations in order to create customer satisfaction (Koenderman, 2009). Service satisfaction also impacts on consumer behavioural intent, whether the consumer generates positive or negative word-of-mouth and whether the consumer uses additional services offered by the service provider or not. In order to increase market share, cellphone service providers need to convince customers of other cellphone network service providers to switch service providers. They also need to convince new customers entering the market to select their network

over those of competitors in order to grow (Lu and Seock, 2007; Ryu et al., 2007). Yet in the cellphone industry of South Africa, customers are riddled with service levels such as dropped calls, incorrect billing and lack of network coverage (Deng et al., 2010).

Kumar and Lim (2008) state that age group plays an important role when conducting research on the adoption of technology (including cellphones) as differences exist in the different generations' cellphone usage due to different inherent needs. Anderson et al. (2008) add that customer characteristics such as age will affect customers' level of satisfaction (where older consumers tend to be more satisfied than younger consumers) and repurchase intentions. Based on this notion, marketers need to differentiate their marketing strategies when they target consumers from different generations in order to attract and retain them over the long-term.

Although Kumar and Lim (2008) conducted a study on the difference between Generation Y and baby boomers in cellphone service perceptions, these authors did not examine the relationship that exists between customer satisfaction and future repurchase intentions and did not include the Generation X cohort in their research. Furthermore González et al. (2007) and Wang and Lo (2002) add that service quality, customer satisfaction and behavioural intent are important factors for service providers, yet few studies have been conducted on these studies in the telecommunications industry. From a South African perspective, although 60% of all South Africans above the age of 16 own a cellphone (Jordaan and Ehlers, 2009), research into the effects of service quality on satisfaction and behavioural intentions in the cellphone industry of South Africa is lacking.

It is thus important for cellphone network service providers to (1) be conversant in how different generations perceive the quality of the services they provide, (2) be familiar with the level of service satisfaction the different generations experience, (3) have insight into the generations' behaviour intentions toward the cellphone network service providers in the future and (4) determine the strength of the relationship or correlation between service quality, service satisfaction and behavioural intent in relation to the cellphone network service provider industry (Dagger and Sweeney, 2007; Dagger et al., 2007). Doing this may assist cellphone network service providers in crafting marketing strategies to acquire prospective customers and to retain existing customers by taking generational differences and similarities into account.

To achieve the purpose of this article as presented in the introduction of this article, the following objectives were formulated:

Investigate the service quality perceptions of the generations toward the services offered by cellphone network service providers.

Determine the level of service satisfaction the generations experience from cellphone network service

providers.

Uncover the behavioural intent of the generations towards cellphone network service providers.

Determine whether correlations exist between the generations' perceived levels of service quality, the service satisfaction they experience from cellphone network service providers, and their behavioural intent towards cellphone network service providers.

MATERIALS AND METHODS

The target population for this study included all individuals in the Gauteng province of South Africa who owned a cellphone and who were 64 years of age or younger at the time of the study (thus excluding the senior generation). A total of 2339 useable responses were gathered.

A non-probability convenience sampling technique was used to collect select the sampling units or respondents. A sampling frame of the target population does not exist. This fact excluded the use of a probability sampling technique and necessitated the use of convenience sampling to select the sampling units or respondents from the target population.

Trained fieldworkers were used to select respondents, distribute questionnaires for completion and to collect completed questionnaires from respondents. The self-administered questionnaire respondents had to complete consists of a number of sections. The first section includes a preamble explaining the objectives of the study, instructions for completion of the questionnaire as well as the rights of the prospective respondent. This section also includes a screening question field workers used to select suitable respondents.

The second part of the questionnaire focuses on the demographic information of respondents, most notably their age group, so as to determine the generation the respondents belong to. This section furthermore includes questions focusing on gender and home language. This section also enquires about the cellphone network service provider patronage of respondents.

The third section includes three adapted Likert scales that measure the three constructs of the study (service quality, service satisfaction and behavioural intent). In order to measure each of these constructs three measurement sets were included, each containing a number of scale items. Respondents had to indicate their level of agreement with each of the scale items on an unlabelled five-point scale where 1 represents 'strongly disagree' and 5 represents 'strongly agree'.

The statistical package for social sciences (SPSS) was used to capture, clean, edit and analyse the data obtained from the questionnaires. Pair wise deletion was employed to deal with missing values. The data analysis involved the examination of the frequency distribution of the results for each of the scale items included in the three measure sets to measure the three constructs of the study were also assessed in order to determine whether all scale items fall within the acceptable limits of normality.

The data analysis also involved the calculation of Cronbach's alpha coefficient in order to determine the reliability of each of the three measurement sets used in the study. The descriptive statistics for the demographic and patronage variables (frequencies) were also calculated. The article also reports the descriptive statistics (mean and standard deviation) for each of the scale items included in the three measurement sets included in the questionnaire as well as the measurement sets overall. With regards to the hypotheses formulated for the study, the researchers relied on a 95% confidence interval and a subsequent 5% level of significance. A p-value of 0.05 or less is thus indicative that a hypothesis formulated

Table 1. Reliability of the measurement sets.

Measurement set	Cronbach's alpha value
Service quality (4 items)	0.886
Service satisfaction (4 items)	0.875
Behaviour intention (6 items)	0.907

for the study may be supported. Parametric tests were furthermore used to test the hypothesis. Such tests are suitable since the sample size is large ($n = 2339$) and the distribution of data obtained for all scale items used to measure each construct fall within the acceptable limits of normality (section 5.1 provides a discussion of the related findings).

One-way analysis of variances (ANOVAs) were first of all used to determine whether there are significant differences between generations in terms of (1) their service quality perceptions regarding the services they receive from cellphone network service providers, (2) the level of service satisfaction they experience from cellphone network service providers and (3) their behavioural intent towards cellphone network service providers. In order to determine the generations between which significant differences exist, Scheffe's post hoc test for multiple comparisons was used when equal variances could be assumed between the means of the different generations. Similarly, Dunnett's T3 post hoc test for multiple comparisons was used when equal variances between the means of the different generations could not be assumed. Pearson's product moment correlations were performed to determine the correlations between the three different constructs stated in the hypotheses formulated for the study. Eiselen et al. (2007) indicates that a correlation coefficient of less than 0.1 indicates that virtually no correlation exists between the two variables, a correlation coefficient between 0.1 and 0.3 indicates a small correlation, a correlation coefficient between 0.3 and 0.5 indicates a medium correlation and a correlation coefficient of greater than 0.5 indicates a strong correlation.

RESULTS AND DISCUSSIONS

This section reports on the empirical results of the study. It communicated the findings in terms of the distribution of the results for each scale item included in the three measurements sets, the reliability as well as the construct validity of the three measurement sets. This section furthermore presents the findings made with regards to the respondents' demographics, service provider patronage and also the findings in terms of each of the constructs measured. The results section ends of with a presentation of the findings made in relation to the hypotheses formulated for the study.

Distribution of results

Before the individual scale items included in each of the measurement sets can be subjected to hypotheses testing using parametric tests, it is important to determine and report on the normality of the distribution of the results obtained for each scale item included. West et al.

(1995) are of the opinion that the distribution of the results collected for a scale item can be considered as normal if it exhibits a skewness of the distribution of less than an absolute value of 2.00 and a kurtosis of the distribution of less than 7.00. The results for all scale items used to measure the three measurement instruments fall within these parameters and can be thus considered (taking other assumptions underlying correlation analysis into account) suitable for parametric tests.

Reliability

Before an overall average value for a construct may be calculated, it is necessary to determine reliability or the extent to which individual scale items included in the measurement set correlates with one another (Pallant, 2010). It is thus necessary to calculate the Cronbach's alpha value. The closer the value is to 1 the more reliable the measurement set may be considered. Pallant (2010) states further that a cut-off point of 0.7 is the lower limit for reliability. Table 1 presents the Cronbach's alpha value for each measurement set. It is evident from Table 1 that all the measurement sets may be considered reliable.

Construct validity

The three measurement sets used to measure service quality; service satisfaction and behavioural intention were taken from the work of Dagger et al. (2007). These scale items included in these measurement sets proved reliable since it showed significant paths to relationship the constructs and are associated with low residuals.

Demographic profile and cellphone network service provider patronage

The majority of respondents are female (52.7%) and the balance of the 47.3% of respondents are male. English is spoken by most respondents (39.4%) followed by those who speak Nguni languages (21.5%) and Sotho languages (20.2%). The majority of respondents are adult Generation Y consumers (50.2%) followed by Generation X (20.6%), Baby boomers (15.1%) and young Generation Y consumers (14.2%). The majority of respondents use

Table 2. Demographic profile and cellphone network service provider patronage of respondents.

Variable	Categories	Number of respondents (count)	Percentage
Gender	Male	1106	47.3
	Female	1231	52.7
Home language	Afrikaans	260	11.2
	English	918	39.4
	Nguni (Zulu, Xhosa, Swati and Ndebele)	501	21.5
	Sotho (Sepedi, Sesotho and Tswana)	470	20.2
	Venda/Tsonga	140	6.0
	Other language	41	1.8
Age	24 years and younger (young Generation Y)	331	14.2
	25 to 33 years (adult Generation Y)	1174	50.2
	34 to 45 years (Generation X)	481	20.6
	46 to 64 years (Baby boomers)	353	15.1
Cell phone network service provider currently used	Vodacom	1205	51.6
	MTN	750	32.1
	Cell C	300	12.8
	Virgin Mobile	80	3.4
Type of customer	Contract customer	1145	49.0
	Prepaid customer	1178	50.4
Length of time with current cell phone network service provider	Less than 6 months	93	4.0
	6 months or longer but less than 1 year	135	5.8
	1 year or longer but less than 3 years	396	17.00
	3 years or longer but less than 5 years	520	22.3
	5 years or longer but less than 10 years	839	36.0
	Longer than 10 years	348	14.9

Vodacom (51.6%) as cellphone network service provider are prepaid customers (50.4%) and have been with their current cellphone network service provider for at least five years but less than 10 years. The respondents' demographic profile and their cellphone network service provider patronage are provided in Table 2.

Service quality

Respondents were required to indicate their level of agreement with four statements measuring service quality perceptions where 1 represents 'strongly agree' and 5 'strongly disagree'. Table 3 provides a comparison of the service quality perceptions of the different generations and the overall service quality rating. Respondents indicated the highest level of agreement overall with the scale items. 'The overall quality of service provided by the cellphone network service provider is

excellent' (mean = 3.30) and 'The service provided by the cellphone network service provider is of a high standard' (mean = 3.30). The scale item 'I believe the cellphone network service provider offers service that is superior in every way' (mean = 3.04), is the scale item respondent's agreed with the least.

Service satisfaction

Respondents were also required to indicate their level of agreement with six statements measuring behavioural intent on a scale where 1 represents 'strongly agree' and 5 'strongly disagree'. Table 4 provides a comparison of the level of service satisfaction the different generations experience as well as the overall service satisfaction rating. Respondents indicated the highest level of agreement overall with the scale items 'I feel good about using this cell phone network service provider' (mean = 3.56)

Table 3. Service quality perceptions of different generations toward the services offered by cellphone network service providers.

Scale items	Young Generation Y		Adult Generation Y		Generation X		Baby boomers		Overall		ANOVA (p-value)
	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	
The overall quality of service provided by the cell phone network service provider is excellent	0.843	3.04	0.942	3.33	0.954	3.39	0.936	3.35	0.936	3.30	0.000*
The quality of the service provided by the cell phone network service provider is impressive	0.854	2.97	0.947	3.29	0.979	3.29	0.970	3.26	0.951	3.24	0.000*
The service provided by the cell phone network service provider is of a high standard	0.969	2.96	0.991	3.37	1.017	3.35	0.937	3.31	0.994	3.30	0.000*
I believe the cell phone network service provider offers service that is superior in every way	0.933	2.76	1.029	3.08	1.063	3.12	1.015	3.09	1.027	3.04	0.000*
Overall	0.768	2.93	0.836	3.26	0.874	3.28	0.844	3.24	0.844	3.21	0.000*

*Significant differences between at least two of the generations

and 'My feelings toward the cellphone network service provider are very positive' (mean = 3.38). The scale item 'I feel satisfied that the results from using this cellphone network service provider is the best that can be achieved' (mean = 3.03), is the scale item respondents agreed with the least.

Behavioural intent

Respondents were furthermore required to indicate their level of agreement with six statements measuring behavioural intent on a scale where 1 represents 'strongly agree' and 5 represents 'strongly disagree'. Table 5 provides a comparison of the behavioural intent of the different generations and their overall behavioural intent. Respondents indicated the highest level of agreement overall with the scale items 'I intend to continue using this cellphone network service provider' (mean = 3.65) and 'I intend to follow the advice given to me by the cellphone network service provider' (mean = 3.53). The scale item 'If I had to choose a cellphone network service provider all over again, I would choose this cellphone network service provider' (mean = 3.46), is the scale item

respondents agreed with the least.

Hypothesis testing

Hypothesis 1

With regards to hypothesis 1 that the generations perceive the level of service quality of cellphone network service providers provide significantly different, the following findings were made (Table 1 provides the means and corresponding p-values):

There is a significant difference between young Generation Y consumers and consumers in the other generations (adult Generation Y, Generation X and baby boomers) with regards to their perceptions regarding the level of service quality cellphone network service providers provide for all the individual scale items and for the measurement set overall (see means and corresponding p-values in Table 3).

It can therefore, be said that overall, young Generation Y consumers perceive the level of service quality that cellphone network service providers provide significantly lower than the other generations. H1 can therefore, be

Table 4. Service satisfaction levels of different generations experience from the cellphone network service providers.

Scale items	Young Generation Y		Adult Generation Y		Generation X		Baby boomers		Overall		ANOVA (p-value)
	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	
My feelings toward the cell phone network service provider are very positive	1.079	3.13	1.053	3.42	1.035	3.49	1.034	3.35	1.055	3.38	0.000*
I feel good about using this cell phone network service provider	1.048	3.33	1.058	3.62	1.054	3.63	1.014	3.48	1.053	3.56	0.000*
I feel satisfied that the results from using this cell phone network service provider is the best that can be achieved	1.035	2.73	1.096	3.07	1.105	3.13	1.030	3.00	1.087	3.03	0.000*
The extent to which using this cell phone network service provider has produced the best possible outcome is satisfying	0.968	2.87	0.970	3.15	1.004	3.21	0.939	3.15	0.977	3.12	0.000*
Overall	0.890	3.01	0.883	3.32	0.900	3.36	0.870	3.24	0.891	3.27	0.000*

*Significant differences between at least two of the generations

partially supported.

Hypothesis 2

With regards to hypothesis 2 that the generations perceive the level of service satisfaction they experience from cellphone network service providers significantly different, the following findings were made:

There is a significant difference between young Generation Y consumers and consumers in the other generations (adult Generation Y, Generation X and Baby Boomers) with regards to their perception of the level of service satisfaction they experience from cellphone network service providers for all the individual scale items except for the scale item ‘I feel good about using this cellphone network service provider’ where young Generation Y consumers and baby boomers exhibit significantly lower levels of agreement with the statement that the other generations (see means and corresponding p-values in Table 4).

In terms of the overall measurement set, young Generation Y consumers perceive the level of service quality significantly lower than the other generations. It

can therefore, be said that overall, young Generation Y consumers perceive the level of service satisfaction with cellphone network service providers significantly lower than the other generations. H2 can therefore, be partially supported.

Hypothesis 3

With regards to hypothesis 3 that the generations exhibit significantly different behavioural intent towards services provided by cellphone network service providers, the following findings were made:

There is a significant difference between young Generation Y consumers and consumers in the other generations (adult Generation Y, Generation X and baby boomers) with regards to their behavioural intent towards services provided by cellphone network service providers for the first three scale items (see means and corresponding p-values in Table 5).

For the scale item ‘I will make use of any other services and products I need from this cellphone network service provider’, young Generation Y consumers’ level of agreement with the scale item is only significantly lower

Table 5. Behavioural intent of different generations towards cellphone network service providers.

Scale items	Young Generation Y		Adult Generation Y		Generation X		Baby boomers		Overall		ANOVA (p-value)
	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	
If I had to choose a cell phone network service provider all over again, I would choose this cell phone network service provider	1.373	3.25	1.276	3.50	1.278	3.51	1.152	3.44	1.275	3.46	0.013*
I would highly recommend the cell phone network service provider to other people	1.206	3.16	1.182	3.45	1.188	3.49	1.106	3.34	1.180	3.50	0.000*
I intend to continue using this cell phone network service provider.	1.210	3.39	1.173	3.71	1.155	3.68	1.064	3.64	1.163	3.65	0.000*
I will make use of any other services and products I need from this cell phone network service provider	1.082	3.35	1.115	3.55	1.125	3.55	1.059	3.39	1.107	3.50	0.005*
I intend to follow the advice given to me by the cell phone network service provider	1.073	3.31	1.064	3.61	1.081	3.59	1.052	3.41	1.073	3.53	0.000*
I am glad to use this cell phone network service provider rather than going somewhere else	1.154	3.35	1.189	3.48	1.206	3.53	1.138	3.46	1.180	3.47	0.201
Overall	0.973	3.30	0.963	3.55	0.980	3.56	0.900	3.45	0.963	3.50	0.000*

* Significant differences between at least two of the generations.

than that of adult Generation Y consumers.

For the scale item 'I intend to follow the advice given to me by the cellphone network service providers', young Generation Y consumers' level of agreement with the scale item is significantly lower than that of the other generations, while adult Generation Y consumers' level of agreement is significantly lower than the other generations.

It can therefore, be said that overall, young Generation Y consumers' behavioural intent is significantly lower than other generations. H3 can therefore, be partially supported.

Hypothesis 4

With regards to hypothesis 4 that there is a correlation between the different generations' perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers, the following findings were made: There is a strong significant correlation (Pearson correlation coefficient = 0.769; p-value = 0.001) between young Generation Y's perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.804; p-value = 0.001) between adult Generation Y's perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers.

There is a strong significant relationship (Pearson correlation coefficient = 0.779; p-value = 0.001) between Generation X's perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.817; p-value = 0.001) between baby boomers' perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers.

There is a strong significant relationship (Pearson correlation coefficient = 0.799; p-value = 0.001) overall between the different generations perceived level of service quality and the perceived level of service satisfaction they experience from cellphone network service providers.

It can therefore, be concluded that strong significant correlations (relationships) exist between the generations' perceived level of service quality and the perceived level of service satisfaction they experience from cellphone service network providers (p values ≤ 0.05 and Pearson correlation coefficients > 0.5 , respectively). H4 can therefore, be supported.

Hypothesis 5

With regards to hypothesis 5 that there is a correlation between the different generations' perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers, the following findings were made:

There is a strong significant correlation (Pearson correlation coefficient = 0.737; p-value = 0.001) between young Generation Y's perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.809; p-value = 0.001) between adult Generation Y's perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.794; p-value = 0.001) between Generation X's perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson

correlation coefficient = 0.805; p-value = 0.001) between baby boomers perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.797; p-value = 0.001) between the different generations' perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

It can therefore, be concluded that strong significant correlations (relationships) exist between the different generations' perceived level of service satisfaction they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers (p-values ≤ 0.05 and Pearson correlation coefficients > 0.5 , respectively). H5 can therefore, be supported.

Hypothesis 6

With regards to hypothesis 6 that there is a correlation between the different generations' perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers, the following findings were made:

There is a strong significant correlation (Pearson correlation coefficient = 0.630; p-value = 0.001) between young Generation Y's perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.692; p-value = 0.001) between adult Generation Y's perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.709; p-value = 0.001) between Generation X's perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.711; p-value = 0.001) between baby boomers perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers.

There is a strong significant correlation (Pearson correlation coefficient = 0.692; p-value = 0.001) between the different generations' perceived level of service quality they experience from cellphone network service providers

and their behavioural intent towards cellphone network service providers.

It can therefore, be concluded that strong significant correlations (relationships) exist between the different generations' perceived level of service quality they experience from cellphone network service providers and their behavioural intent towards cellphone network service providers (p -values ≤ 0.05 and Pearson correlation coefficients > 0.5 , respectively). H6 can therefore be supported.

Managerial implications and recommendations

An important finding of this study is the fact that young Generation Y consumers perceive the service quality levels and service satisfaction levels offered by cellphone network service providers significantly lower as the other generations. Associated with this, is a low level of behavioural intent towards cellphone network service providers by this generation, making customer defection a real threat. More worrying is the fact that young Generation Y consumers represent a critical market for cellphone network service providers, since they are growing into adulthood; they are entering the job market and subsequently their incomes increase, thus enabling them to spend more on cellphone and related expenditures. Based on these findings, the cellphone network service providers need to uncover the reasons why this generation perceive service quality and service satisfaction to be low. As a result, cellphone network service providers should determine what they need to do to improve the perceptions of service quality and service satisfaction among young Generation Y consumers. To address the differences between generations uncovered in service quality, service satisfaction and behavioural intent, cellphone network service providers should furthermore develop customised marketing strategies to target the different generations. Clear relationships also exist between service quality, service satisfaction and behavioural intent, as advocated in previous research, has been confirmed in this research. Cellphone network service providers should therefore, ensure that quality services are consistently provided to customers. Once customers are satisfied with the levels of service they receive from cellphone network service providers, they will be more inclined to continue purchasing from the cellphone network service provider in the future.

LIMITATIONS AND FUTURE RESEARCH

This research was limited in that it was only conducted in one province of South Africa (namely Gauteng) and that the research excluded the senior generation. The research also did not take into consideration the effect of service failures on satisfaction and behaviour intent as

the way in which the cellphone network service provider deals with service failures could influence customers' satisfaction levels and their future behavioural intent to repurchase from the cellphone network service provider.

Another limitation of the study involves the fact that a non-probability convenience sampling was used to select respondents from the target population. This sampling method limits the ability to generalise the results to the total population.

It is recommended that the research be conducted in other provinces and includes other demographic variables (for example gender) and other influences such as personality, culture and usage patterns. Future research could include the effect of service failures on customer satisfaction levels and behavioural intent.

Conclusion

This study provides insight into the views of various generations on their perceptions of the service quality provided by their cellphone network service provider. Furthermore, the research provides an understanding into the satisfaction levels and future behavioural intentions of various generations towards their cellphone network service provider which has been lacking from a South African perspective. The results indicate that significant correlations exist between the different generations' perceived level of service quality and perceived level of satisfaction as well as their perceived level of satisfaction and behavioural intent. This research therefore indicates the importance to South African cellphone network service failures to provide customers with services that meet and exceed expectations. Furthermore, the results can offer insights into how cellphone network service providers in South Africa should target or market their services to customers of various generations and the importance of developing different marketing strategies for the different generations.

REFERENCES

- Anderson S, Klein Pearo L, Widener SK (2008). Drivers of service satisfaction: linking customer satisfaction to the service concept and customer characteristics. *J. Serv. Res.*, 10(4): 365-381.
- Bitner M (1990). Evaluating service encounters: the effects of physical surroundings and employee responses. *J. Market.*, 54(2): 69-82.
- Bodet G (2008). Customer satisfaction and loyalty in service: two concepts, four constructs, several relationships. *J. Retail. Construct. Serv.*, 15: 156-162.
- Boshoff C, Du Plessis F (2009). *Services marketing: a contemporary approach*. Cape Town: Juta.
- Cronin JJ, Taylor SA (1992). Measuring service quality: Are - examination and extension. *J. Market.*, 56(3): 55-68.
- Dagger TS, Sweeney, JC (2007). Service quality attribute weights: How do short-term and longer-term customers construct service quality perceptions? *J. Serv. Res.*, 10(1): 22-42.
- Dagger TS, Sweeney JC, Johnson, LW (2007). A hierarchical model of health service quality. *J. Serv. Res.*, 10(2): 123-142.

- Dean AM (2004). Rethinking customer expectations of service quality: Are call centres different? *J. Serv. Market.*, 18(1): 60-77.
- Deng Z, Lu Y, Wei KK, Zhang J (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *Int. J. Info. Manage.*, 30: 289-300.
- Eiselen R, Uys T, Potgieter T (2007). Analysing survey data using SPSS13. 3rd ed. Johannesburg: STATKON, University of Johannesburg.
- González MEA, Comesaña LR, Brea JAF (2007). Assessing tourist behavioural intentions through perceived service quality and customer satisfaction. *J. Bus. Res.*, 60(2007): 153-160.
- Grewal D, Levy M (2010). *Marketing*. 2nd ed. New York, NY: McGraw-Hill.
- Hamilton J (2003). Are main lines and mobile phones substitutes or complements: evidence from Africa. *Telecom. Policy.*, 27: 109-133.
- Hawkins DI, Mothersbaugh DL (2010). *Consumer behaviour: Building marketing strategy*. 11th ed. New York, NY: McGraw-Hill.
- Hoyer WD, MacInnis DJ (2010). *Consumer behavior*. 5th ed. Sydney: South-Western.
- Jordaan Y, Ehlers L (2009). Young adult consumers' media usage and online purchase likelihood. *J. Fam. Ecol. Construct. Sci.*, 37: 24-34.
- Jorgensen B (2003). Baby boomers, Generation X and Generation Y? Policy implications for defence forces in the modern era. *Foresight.*, 5(4): 41-49.
- Koenderman T (2009). Mobile marketing ready to roll. [Internet: www.fin24.com/AdReview/News-that-matters/Mobile-marketing-ready-to-roll-20090710: Downloaded on 2011-02-04.]
- Kumar A, Lim H (2008). Age differences in mobile service perceptions: comparison of Generation Y and baby boomers. *J. Serv. Market.*, 22(7): 568-577.
- Lee Johathan, Lee Janghuyk, Feick L (2001). The impact of switching costs on the customer satisfaction-loyalty link: Mobile phone service in France. *J. Serv. Market.*, 15(1): 35-48.
- Lu Y, Seock YK (2007). The influence of grey consumers' service quality perceptions on satisfaction and store loyalty behaviour. *Int. J. Retail Distrib. Manage.*, 36(11): 901-918.
- Mbendi (2010). Telecommunications in South Africa – SA cellular industry [Internet: www.mbendi.com/indy/cotl/tlcm/af/sa/p0005.htm: Downloaded on 2010-10-11.]
- Munnukka J (2007). Characteristics of early adopters in mobile communications markets. *Market. Intell. Plan.*, 25(7): 719-731.
- Pallant J (2010). *Survival manual*. 4th ed. New York: McGraw-Hill.
- Palmer A (2008). *Principles of services marketing*. 5th ed. London: McGrawHill.
- Ryu K, Han H, Kim TH (2007). The relationship among overall quick casual restaurant image, perceived value, customer satisfaction and behavioural intentions. *Int. J. Hosp. Manage.*, 27: 459-469.
- Saeed W, Khan AI, Hussain F (2009). User satisfaction with mobile services in Pakistan. *Int. J. Org. Innovat.*, 1(4): 44-57.
- Saha GC, Theingi H (2009). Service quality, satisfaction, and behavioral intentions: a study of low-cost airline carriers in Thailand. *Manage. Serv.*, 19(3): 350-372.
- Schiffman LG, Kanuk LL, Hansen H (2008). *Consumer behaviour: A European outlook*. Harlow: Pearson.
- SouthAfrica.info (2008). South Africa's telecommunications. [Internet: www.southafrica.info/business/economy/infrastructure/telecoms.htm: Downloaded on 2011-02-04.]
- Torres-Moraga E, Vázquez-Parraga AZ, Zamora-González J (2008). Customer satisfaction and loyalty: Start with the product, culminate with the brand. *J. Cons. Market.*, 25(5): 302-313.
- Vlachos PA, Vrechopoulos AP (2008). Determinants of behavioural intentions in the mobile internet services market. *J. Serv. Market.*, 22(4): 280-291.
- Wang Y, Lo H (2002). Service quality, customer satisfaction and behavioral intentions: Evidence from China's telecommunications industry. *Information*, 4(6): 50-60.
- West SG, Finch JF, Curran PJ (1995). Structural equation models with non-normal variables: Problems and remedies. Hoyle (ed) 1995: 56-75.
- Zeithaml VA, Bitner M, Gremler DD (2009). *Services marketing: Integrating customer focus across the firm*. 5th ed. Boston, Massachusetts: McGraw.