

Differences between customer type and consumption stage in terms of service failure responses and preferred service recovery strategies in the cellphone industry

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ABSTRACT

Cellphone network service providers face intense competition in a market reaching maturity. The industry is plagued with difficulties with infrastructure, congestion and subsequent service problems. This paper uncovers individual service failures customers experience in this industry, what their likely responses to a serious service failure are, and the service recovery strategies they prefer. It is the contention of the authors that different types of customers and customers in various consumption stages respond differently when faced with service failures and would therefore prefer different service recovery strategies. A total of 2339 useable responses were collected in Gauteng, South Africa through convenience sampling of cellphone owners aged 64 years or younger. The results indicate that respondents consider network unavailability to be the most common service failure. Significant differences were found between groups of respondents, based on the type of customer and consumption stage, with regard to their likely responses to a serious service failure and the service recovery strategies they prefer. The results of the study may guide service providers in tailoring service recovery strategies for different types of customers and consumption stages.

Key words: service failure, service recovery, cellphone network service providers, customer type, consumption stage

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Introduction

South Africa has shown rapid growth in the number of cellphone users, leading the market to reach saturation. This rapid growth has also led to major network congestion and subsequent service problems related to the South African cellphone service provider networks (Sutherland 2008). Subsequently, customers are showing high levels of customer dissatisfaction, requiring service recovery strategies to be put in place to remedy the situation (Poovalingam & Veerasamy 2007). As it is impossible for service providers to consistently meet and exceed customer needs, service providers need to determine what customers expect when expectations are not met and service failures occur. If service providers are unable to recover from service failures, service providers could experience detrimental results to their profitability and performance, which could furthermore lead to customers switching service providers and engaging in negative word-of-mouth (Chelminski & Coulter 2011). According to Bejou and Palmer (1998), it is important for a service business to determine their customer types and how long customers have been dealing with them (consumption stage), as this will influence how customers will react when faced with poor service and service failures.

Taking the above into consideration, this paper aims primarily to investigate whether customers of cellphone network service providers differ significantly in their likely responses to service failures, and the service recovery strategies they prefer based on customer type (prepaid versus contract) and consumption stage (novice versus longer-term).

Literature review

The literature review provides an overview of the South African cellphone network service provider industry and focuses on concepts relevant to this paper, namely, service failure and service recovery. The literature review furthermore distinguishes between the different types of customers and explicates the consumption stages of customers within this context and whether these aspects impact on their consumer behaviour in response to service failures.

The cellphone network service provider industry of South Africa

At the end of 2010, competition in the cellphone industry reached a high point, with five service network providers competing in the market (South Africa.info 2010). Vodacom and MTN are the most established network service providers with 53% and

32% market share respectively, followed by Cell C with 14.5% market share. Virgin mobile (which entered the market in 2004) is aiming to increase its market share to 10% in the near future. The fifth entrant to the market – 8ta – only entered the market late in 2010 (Cell C 2010a, b; Datamonitor 2010; MTN 2009; MyBroadband 2010; Virgin Mobile 2009; Vodacom 2009).

Sutherland (2008) explains that South Africa has shown rapid growth in the number of cellphone users, leading the market to reach saturation. This rapid growth has also led to major network congestion problems on the South African cellphone networks. Due to the inability of the cellphone network service providers' infrastructure to cope with demand, South African cellphone users are experiencing frequent service failures such as dropped calls, unavailable networks, SMSs or MMSs not going through, and inadequate network coverage from network service providers (McCormick 2003). These failures have led to customers being dissatisfied with their cellphone network service providers, with 21% of cellphone customers changing service providers due to poor service by 2007 (Poovalingam & Veerasamy 2007).

Service failure

Orsingher, Valentini and De Angelis (2010) discuss the inevitable nature of service failures within the service industry by stating that most of the complaints received by organisations (including service providers) are due to poor service delivery. Anupam, Dangayach and Rakesh (2011) define service failures as those failures that customers perceive when the service provided during the service delivery process or the outcome of the service does not live up to their expectations. Service failures occur as a result of failures during the interactions between customers and the organisation (Cambra-Fierro, Berbel-Pineda, Ruiz-Benitez & Vazques-Carrasco 2011), where the human interactions between customers and service employees increase the possibility of service failures (Hui, Ho & Wan 2011). These service failures lead to customers experiencing various types of losses such as emotional, economic, time, mental and physical energy loss (Krishna, Dangayach & Jain 2011). From a service provider perspective, service failures lead to customer switching behaviour, a lack of loyalty and trust, as well as negative word-of-mouth (Anupam et al. 2011).

Considering that most organisations do not encourage complaint behaviour, and since not all customers complain or actively voice their complaints to the service provider once faced with a service failure, it stands to reason that service providers often do not understand the negative impact that service failures can have on business performance (Anupam et al. 2011; Skaalsvik 2011). Two main forms of complaint behaviour can be identified, namely spreading negative word-of-mouth

where customers discuss their frustration with the service failure with friends and others; and voicing their complaints to the service provider (Chelminski & Coulter 2011). Sharma, Marshall, Reday and Na (2010) add that customers can also engage in voicing complaints to third parties (such as consumer groups or legal parties). When faced with complaints following service failures, many service providers do not recognise the severity of complaints on their business and often do not have the proper complaint management strategies in place to deal with these complaints (Siddiqui & Tripathi 2010). This implies that service providers should have strategies in place to manage the receipt, investigation, settlement and prevention of complaints (Hansen, Wilke & Zaichkowsky 2010). According to Sabharwal, Soch and Kaur (2010), customers should be encouraged to complain, especially in competitive markets, as this can provide the service provider with the opportunity to recover from the failure.

Service recovery can be defined as a set of post-failure actions taken by the service provider to repair the damage experienced by a customer after a service failure has occurred (Cambra-Fierro et al. 2011; Krishna et al. 2011; Sabharwal et al. 2010). Huang (2011) and Sabharwal et al. (2010) explain that service recovery is essential for service providers, since the way in which service providers recover from service failures will influence whether customers will remain with the organisation or switch to a competitor. Anupam et al. (2011) provide service providers with a four-step service recovery process, which includes acknowledging the failure; providing customers with an explanation of why the problem occurred; providing customers with an apology; and compensating customers for the failure. From the literature, various service recovery strategies can be identified that can be implemented by service providers following a service failure, including doing nothing to solve the problem; providing an explanation for the failure; apologising for the failure; solving the problem; and providing some form of compensation (Anupam et al. 2011; Huang 2011; Krishna et al. 2011; Tsarenko & Tojib 2011; Wang & Mattila 2011). Wang and Mattila (2011) classify service recovery strategies into two broad categories, namely tangible strategies (such as providing monetary compensation), and intangible strategies (such as providing an apology). The authors emphasise the fact that service providers need to identify which service recovery strategies will work in which situations, as they will influence customer satisfaction and loyalty levels (Wang & Mattila 2011).

The service recovery paradox promotes the idea that by effectively managing and recovering from a service failure, the customer can move to a higher level of satisfaction than before the failure occurred (Krishna et al. 2011). Sabharwal et al. (2010) mention that the benefits of effective service recovery cannot be underestimated and significantly improve all behavioural intentions of customers. Furthermore, effective

service recovery aids in strengthening long-term relationships with customers and provides customers with valuable feedback and information that can be used to improve the service delivery (Cambra-Fierro et al. 2011). Krishna et al. (2011) emphasise the need for service providers to ensure that the complaint management and service recovery process is focused, well implemented and managed, as customers' reactions to service failures differ from customer to customer. Orsingher et al. (2010) conclude that an effective service recovery strategy enables service providers to repair damage caused by the service failure and provides the service provider with an opportunity to increase customer satisfaction and loyalty levels.

Types of customers

Buys and Malebo (2004) and Poovalingam and Veerasamy (2007) explain that two main service options are available to South African cellphone users, namely prepaid and contract options. The contract option can be further divided into different options, from business contracts to contracts for low-income private users with a top-up option. The prepaid option allows customers to control their expenditure and purchase airtime vouchers for different amounts. These varying options allow customers to select an option that meets their individual needs. According to research conducted by World Wide Worx, the majority of South Africans are prepaid customers (64%) compared to 33% contract customers, with the balance of customers being both prepaid and contract customers (Poovalingam & Veerasamy 2007).

Simpson and Dore (2007) explain that contract customers enter into a contractual agreement (usually for two years) with the service provider. Contract customers select between various contract options (from business contracts to lower-cost contracts for low-income private users) (Buys & Malebo 2004). These customers pay a monthly subscription fee and pay additional fees for all calls, SMSs, MMSs and data bundles used during the month (Simpson & Dore 2007). According to Poovalingam and Veerasamy (2007), the majority of contract customers earn a steady income and have credit references, since the service provider must conduct a credit check before issuing a contract. Contract customers usually use cellphones for work purposes.

According to Buys and Malebo (2004), the prepaid option was first introduced to the South African public in 1996, two years after the introduction of the contract option. Prepaid customers purchase a starter pack to get the initial connection to the service provider, and then purchase airtime vouchers, which are available at different prices in order to make calls or send SMSs and MMSs. Data bundles can also be purchased through airtime vouchers. These airtime vouchers are available at various outlets, from supermarkets to dedicated service provider stores.

The prepaid option has high levels of appeal for South Africans due to its affordability for low-income earners, since they can control their expenditure. Prepaid customers are exempted from credit checks and long-term binding contracts, offering customers high levels of flexibility given that the majority of prepaid customers are students or low-income earners (Poovalingam & Veerasamy 2007). Harrison (2009) and Reid (2007) reiterate the importance of the prepaid market to cellphone network service providers, as the prepaid customers represent the largest percentage of cellphone users, and recent trends indicate a shift from purchasing cellphone contracts towards the prepaid option.

Of significant importance to this study is the fact that Poovalingam and Veerasamy (2007) state that prepaid and contract customers differ in their expectations; contract customers expect higher levels of service from their cellphone network service providers than prepaid customers.

Consumption stages

In the literature, it is proposed that customers at different consumption stages will exhibit different forms of complaint behaviour and will react differently to service failures and the recovery strategies put in place by service providers, yet very little research has been conducted on this topic (Velázquez, Blasco, Saura & Contrí 2010). Casado, Nicolau and Mas (2010), and Kasabov and Warlow (2010) state that studies on complaint behaviour have mainly looked at factors such as market factors, demographic factors (specifically personality and emotions) and seller-service factors, yet there is still a lack of studies to determine the effect of, or the relationship between, how long customers have been dealing with the service provider (i.e. consumption stage) and the service recovery efforts of the service provider. Velázquez et al. (2010) opine further that determining the relationship between service failures, service recovery and the consumption stage becomes essential, considering that newer customers tend to show higher levels of dissatisfaction and complaint behaviour than customers who have been dealing with the service provider over a longer period of time. The authors reason that newer customers have not had much experience with the service provider, and unlike longer-term customers, may not be able to rely on previous positive experiences, causing them to be more likely to complain.

According to Dagger and Sweeney (2007), and Poovalingam and Veerasamy (2007), two main consumption stages can be noted, namely, novice customers (those who are new to the service provider) and longer-term customers (customers who have been dealing with the service provider for three years or longer). Bejou and Palmer (1998) opine that it is essential for service providers to determine how long customers

have been dealing with the service provider, as the type of customer and the period of time that the customer has been a patron of the service provider will influence how customers will react when faced with poor service and service failures.

Dagger and Sweeney (2007) mention that the needs and likely complaint behaviour of novice and longer-term customers differ. Novice customers tend to focus on tangible elements of the service that are easily measured and evaluated. These customers focus on elements that can be directly identified, such as tangible elements and administrative issues, whereas longer-term customers evaluate the service received in terms of the outcome that can be expected over a longer period of time. Customers who have been dealing with the service provider for a longer period of time will explain their individual needs to service providers, presenting the opportunity for customised service strategies.

Problem investigated and research objectives

The cellphone network service provider industry has grown rapidly over the past decade. With the increasing demand for cellphone service provider networks, customers are encountering service failures, which lead to customers complaining about the service received (Poovalingam & Veerasamy 2007). In studying customers' likely responses to service failures, businesses can gain a clearer understanding of customers and why they respond in particular ways. Suggestions can then be made on how to prevent, rectify and recover from service failures.

From the literature review, it can be noted that it is important for cellphone network service providers to identify different customers' likely responses when faced with service failures, as these will influence customers' satisfaction levels and customer loyalty (Cambra-Fierro et al. 2011; Bejou & Palmer 1998). Since prepaid and contract customers vary (contract customers tend to use their cellphones for work and earn a steady income, while prepaid customers tend to have lower incomes and are younger), it becomes necessary for the cellphone network service providers to determine how these two types of customers vary in their likely responses and how they view service failures (Poovalignam & Veerasamy 2007). Furthermore, Dagger and Sweeney (2007) opine that the length of the relationship also influences how customers respond to service failures and that the needs of novice and longer-term customers differ. Cellphone network service providers need to segment their customers into novice and longer-term customers in order to ensure that the correct service and service recovery strategies are presented to each customer group. Velázquez et al. (2010) contend that even though research has been conducted on the topic of complaint behaviour, little research has been done on the effect of the consumption

stage on complaint behaviour. Since service providers want customers to form long-term relationships with the provider, the necessity of determining how customers at different stages in their relationship with the service provider experience a service failure, and its effect on their complaint behaviour, becomes evident.

This study focuses on different groups of cellphone network service provider customers. The distinction between the groups is based on the kind of customers they are to the cellphone network service providers (prepaid or contract) and the length of their relationship with the service provider (novice or longer-term). The questions remain which service failures cellphone network service provider customers are confronted with, what their likely response will be if they do experience a serious service failure, and what service recovery strategies they prefer the service provider to implement in the event of a serious service failure. Finally, will the different groups' likely responses to a serious service failure, and the subsequent service recovery strategies they prefer, be significantly different between the groups?

The following objectives were thus formulated for this study:

- Investigate the service failures experienced by cellphone network service provider customers.
- Determine the most likely responses of cellphone network service provider customers when a serious service failure is experienced.
- Determine the most preferred service recovery strategies that cellphone network service provider customers require when a serious service failure is experienced.
- Determine whether significant differences exist between different types of cellphone network service provider customers, their likely responses to service failures and the service recovery strategies they prefer.
- Determine whether significant differences exist between cellphone network service provider customers in different stages of consumption, their likely responses to service failures and the service recovery strategies they prefer.

Research methodology

The target population for this study included 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. A total of 2339 useable responses were collected.

Non-probability convenience sampling was used to collect data over a two-week period from respondents who are cellphone users in Gauteng province. To ensure representativeness of the target population, trained fieldworkers representing both genders, all race groups and who originated from various regions of Gauteng identified suitable respondents in their respective communities (those who owned a cellphone

and were 64 years or younger). Fieldworkers distributed questionnaires and collected completed questionnaires from respondents. Screening questions were included in the questionnaire to ensure that respondents met these criteria for participation.

The self-administered questionnaires completed by respondents consisted of various sections. The first section explained the objectives of the study and provided instructions for completion of the questionnaire as well as the rights of the prospective respondent. This section also included a screening question, which fieldworkers used to select suitable respondents.

Section two was aimed at gathering demographic information from respondents (age, gender and home language). This section also gathered information about the cellphone network service provider patronage of respondents, most notably whether they were prepaid or contract customers and the length of time they had been with their current cellphone network service provider. For the purposes of this study, longer-term customers were defined as those customers who had been dealing with the service provider for three years or longer. This is in line with studies conducted on complaint behaviour by Dagger and Sweeney (2007) and on customer relationship marketing in the South African cellphone industry by Poovalingam and Veerasamy (2007).

Section three measured the likely responses of respondents following a serious service failure (nine different likely responses were included); while the second measured their preferences pertaining to service recovery strategies they would like the service provider to implement (eight different recovery strategies were included). Respondents indicated their level of agreement with each of the responses and strategies on an unlabelled five-point scale (where 1 = 'strongly disagree' and 5 = 'strongly agree'). The different likely responses to a service failure and service recovery strategies included in the questionnaire originate from the work of Yuksel, Kilinc and Yuksel (2006), who used these in a study on hotels. The different likely responses to a service failure and service recovery strategies from the study by Yuksel et al. were adopted for use in this questionnaire focusing on cellphone network service providers.

The Statistical Package for Social Sciences (SPSS) was used to capture, clean, edit and analyse the data obtained from the questionnaires. Missing values were dealt with by employing pairwise deletion. Data analysis involved calculating frequencies for demographic and patronage variables. Frequencies are presented for the service failures experienced by respondents during the last six months. The paper also reports (in table format) the means for each of the different likely responses to a service failure and service recovery strategies for each of the different groups (based upon kind of customer and length of relationship with their current cellphone network service provider). Statistical testing was conducted to determine whether

any statistically and practically significant differences exist between the means of the groups in terms of each of the different likely responses to a service failure and service recovery strategies measured in the questionnaire.

The researchers relied on a 95% confidence interval that allows for a 5% level of statistical significance. When a statistically significant difference was evident, the researchers furthermore considered the practical significance of the difference in order to determine whether the difference observed was also significant in practice by calculating the d-value (Ellis & Steyn 2003). According to Ellis and Steyn (2003), the d-value involves the calculation of a standardised difference between the means of the groups being compared. A d-value of 0.2 is indicative of a small effect; a d-value of 0.5 is indicative of a medium effect; whilst a d-value of 0.8 represents a large effect that can be deemed practically significant (Cohen 1988).

Due to the large sample size ($n = 2\,339$) and the fact that the distribution of the results for all the different likely responses to a service failure and service recovery strategies fall within the acceptable limits of normality, parametric tests were used to determine where significant differences exist between groups. Independent sample t-tests were firstly used to determine whether significant differences exist between prepaid and contract customers with regard to their likely responses to a serious service failure, as well as their preferred service recovery strategies. Independent sample t-tests were secondly used to determine whether significant differences exist between novice and longer-term customers with regard to their different likely responses to a serious service failure, as well as their preferred service recovery strategies. The results of the analysis are subsequently reported.

Results

The following section provides an exposition of the distribution of the results: the demographic profile of respondents and their patronage are provided, as well as the findings in terms of the different likely responses to a service failure and service recovery strategies.

Distribution of results

Before the different likely responses to a service failure and service recovery strategies can be subjected to significance testing, it is important to determine and report on the normality of the distribution of the results obtained for each of these responses or strategies. According to West, Finch and Curran (1995), the distribution of the results collected for a response or strategy can be considered to be normal if it exhibits a skewness of the distribution of less than ± 2.00 and a kurtosis of the distribution

of less than ± 7.00 . Table 1 shows that the distribution of all the responses and strategies included in the questionnaire measuring respondents' likely responses to a service failure *and* preferred service recovery strategies falls within these parameters and can therefore be considered normal, and thus suitable for parametric testing.

Table 1: Skewness and kurtosis of likely responses to a service failure and service recovery strategies

Likely customer response	Skewness	Kurtosis
I would complain to the cellphone network service provider	-0.580	-0.607
I would talk or communicate to other customers about the problem	-0.490	-0.625
I would not recommend this cellphone network service provider to my friends or relatives	0.018	-0.861
I would not support this cellphone network provider in future	0.154	-0.686
I would demand immediate and active involvement of a manager	0.115	-0.899
I would leave my current cellphone network service provider for another in the future	0.227	-0.957
I would write a letter of complaint to the head office	0.488	-0.782
I would never use this cellphone network service provider again	0.568	-0.664
I would complain to an external agency (e.g. newspaper)	0.856	-0.206
Service recovery strategy	Skewness	Kurtosis
It is necessary for the cellphone network service provider to do something	-1.715	2.020
Provide me with an explanation for the poor service	-0.937	0.153
Acknowledge that I was not properly treated	-0.691	-0.285
Provide me with some form of compensation (e.g. provide me with free airtime or reduce my contract fees)	-0.508	-1.014
Apologise to me verbally for the poor service I received	0.193	-1.074
A supervisor has to intervene in the situation	-0.137	-0.851
A manager has to intervene in the situation	-0.073	-0.947
Apologise to me in writing for the poor service I received	-0.369	-0.961

Demographic profile of respondents

The majority of respondents are female (52.7%), and the balance of 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 25–33 years of age (50.2%), followed by 34–45 years (20.6%), 46–64 years (15.1%) and 24 years or younger (14.2%). Table 2 presents the results of the demographic profile of respondents.

Table 2: Demographic profile 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 (isiZulu, isiXhosa, Siswati, isiNdebele)	501	21.5
	Sotho (Sepedi, Sesotho and Setswana)	470	20.2
	Tshivenda/Xitsonga	140	6.0
	Other language	41	1.8
Age	24 years and younger	331	14.2
	25-33 years	1174	50.2
	34-45 years	481	20.6
	46-64 years	353	15.1

Cellphone network service provider patronage of respondents

Table 3 shows that the majority of respondents are Vodacom customers (51.6%), followed by MTN (32.1%), Cell C (12.8%) and Virgin Mobile (3.4%). Respondents are split almost equally between contract (49%) and prepaid customers (51%). The majority of respondents are also longer-term customers (73.2%), compared with novice customers (26.8%).

Table 3: Cellphone network service provider patronage of respondents

Variable	Categories	Number of respondents (count)	Percentage
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	51.0
Length of time with current cellphone network service provider	Less than three years (novice customers)	624	26.8
	Three years or longer (longer-term customers)	1707	73.2

Service failures experienced

Table 4 provides an exposition of the service failures experienced by respondents with regard to services offered by their current cellphone network service provider. The major service failure identified is related to the cellphone network service providers' coverage not being available, with 80.8% of respondents experiencing this service failure in the months prior to the research. Dropped calls (52.5%), inadequate cellphone network service provider coverage (55.6%) and SMSs or MMSs not going through (50.9%) were experienced by at least half or more of the respondents in the last six months.

Table 4: Service failures experienced by respondents in the last six months

Service failure	Count	Percentage
Dropped calls	1222	52.5
Cellphone service provider network not available	1882	80.8
SMSs or MMSs not going through	1186	50.9
Not receiving messages	540	23.2
Inadequate cellphone network service provider coverage	1295	55.6
Incorrect billing	463	19.9
Other	80	4.0

Likely responses and preferred service recovery strategies of prepaid and contract customers

When respondents who are prepaid and contract customers of cellphone network service providers were asked to indicate their level of agreement with different responses that expressed likely responses a customer might desire when a serious service failure occurs, both prepaid and contract customers indicated 'I would complain to the cellphone network service provider', 'I would talk or communicate to other customers about the problem' and 'I would not recommend this cellphone network service provider to my friends or relatives' as the three most likely responses to the serious service failure. The least likely response for both prepaid and contract customers when serious service failures occur is 'I would complain to an external agency (e.g. newspaper)'.

With regard to the likely responses of prepaid and contract cellphone network service provider customers when a serious service failure is experienced, the following findings were made:

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- Statistically and practically significant differences exhibiting a small practical effect were found between prepaid and contract customers in the following four instances: ‘I would not recommend this cellphone network service provider to my friends or relatives’, ‘I would demand immediate and active involvement of a manager’, ‘I would never use this cellphone network service provider again’ and ‘I would complain to an external agency (e.g. newspaper)’. Contract customers therefore consider these four responses statistically significantly more likely than prepaid customers when a serious service failure occurs, but little practical significance was evident in the differences in all four instances.
- In terms of the other five statements, contract customers do not consider any of them significantly more or less likely to occur than prepaid customers when a serious service failure occurs.

Table 5 presents an exposition of the means and p- and d-values that are indicative of statistically and practically significant differences between the means of the two groups discussed.

Table 5: Likely responses of prepaid and contract customers

Likely customer response	Contract customers	Prepaid customers	p-value	d-value
I would complain to the cellphone network service provider	3.64	3.74	0.54	0.20**
I would talk or communicate to other customers about the problem	3.50	3.52	0.825	0.04
I would not recommend this cellphone network service provider to my friends or relatives	3.15	3.00	0.002*	0.3
I would not support this cellphone network provider in future	2.97	2.91	0.178	0.12
I would demand immediate and active involvement of a manager	2.96	2.84	0.26*	0.24**
I would leave my current cellphone network service provider for another in the future	2.79	2.74	0.374	0.10
I would write a letter of complaint to the head office	2.49	2.40	0.100	0.18
I would never use this cellphone network service provider again	2.39	2.26	0.014*	0.26**
I would complain to an external agency (e.g. newspaper)	2.16	2.05	0.028*	0.22**

* Statistically significant at a p-value of 0.05 or less

** Practically significant where a d-value of 0.2 is indicative of a small effect with no practical significance, a d-value of 0.5 is indicative of a medium effect, whilst a d-value of 0.8 represents a large effect

As presented in Table 6, when respondents who are prepaid and contract customers of cellphone network service providers were asked to indicate their level of agreement with statements representing possible service recovery strategies that they would consider in the event of a serious service failure, both prepaid and contract customers agreed that the most preferred service recovery strategies are 'It is necessary for the cellphone network service provider to do something', 'Provide me with an explanation for the poor service' and 'Acknowledge that I was not properly treated'. 'Apologise to me in writing for the poor service I received' is the least preferred service recovery strategy for both prepaid and contract customers.

With regard to the preferred service recovery strategies of prepaid and contract cellphone network service provider customers when a serious service failure is experienced, the following differences were noted:

- Statistically significant and small to medium practically significant differences between prepaid and contract customers were found in the following two instances 'A manager has to intervene in the situation' (small effect) and 'Apologise to me in writing for the poor service I received' (small to medium effect). Contract customers preferred these two service recovery strategies statistically significantly more than prepaid customers when a serious service failure occurs, but the practical significance of the differences varies between small and medium to small effects.
- In terms of the other six service recovery strategies, prepaid and contract customers do not prefer any of them significantly more or less than prepaid customers when a serious service failure occurs. Table 6 presents an exposition of the means and p- and d-values that are indicative of statistically and practically significant differences between the means of the two groups.

Likely responses and preferred service recovery strategies of novice and longer-term customers

When respondents who are novice and longer-term customers of cellphone network service providers were asked to indicate their level of agreement with different statements expressing likely responses a respondent might desire when a serious service failure occurs, both prepaid and contract customers indicated 'I would complain to the cellphone network service provider', 'I would talk or communicate to other customers about the problem' and 'I would not recommend this cellphone network service provider to my friends or relatives' as the three most likely responses. The least likely response for both prepaid and contract customers when a serious service failure occurs is 'I would complain to an external agency (e.g. newspaper)'.

Table 6: Preferred service recovery strategies of prepaid and contract customers

Service recovery strategy	Contract customers (mean)	Prepaid customers (mean)	p-value	d-value
It is necessary for the cellphone network service provider to do something	4.37	4.35	0.544	0.04
Provide me with an explanation for the poor service	4.00	3.97	0.584	0.06
Acknowledge that I was not properly treated	3.78	3.80	0.609	0.04
Provide me with some form of compensation (e.g. provide me with free airtime or reduce my contract fees)	3.59	3.55	0.483	0.08
Apologise to me verbally for the poor service I received	3.46	3.43	0.515	0.06
A supervisor has to intervene in the situation	3.29	3.24	0.310	0.10
A manager has to intervene in the situation	3.24	3.13	0.049*	0.22**
Apologise to me in writing for the poor service I received	2.91	2.75	0.004*	0.32**

* Statistically significant at a p-value of 0.05 or less

** Practically significant where a d-value of 0.2 is indicative of a small effect with no practical significance, a d-value of 0.5 is indicative of a medium effect whilst a d-value of 0.8 represents a large effect

This finding corresponds with the likely responses as expressed by the respondents when grouped according to kind of customer (prepaid and contract).

With regard to the likely responses of novice and longer-term cellphone network service provider customers when a serious service failure is experienced, the following differences were observed:

- Statistically significant and small to medium, and medium to large practically significant differences were found in the following four instances: ‘I would not support this cellphone network provider in future’ (small to medium effect), ‘I would demand immediate and active involvement of a manager’ (small to medium effect), ‘I would leave my current cellphone network service provider for another in the future’ (medium to large effect) and ‘I would never use this cellphone network service provider again’ (medium to large effect). Novice customers consider these four responses statistically significantly more likely than longer-term customers when a serious service failure occurs. The practical significance of the differences exhibits small to medium, and medium to large effects.
- Novice customers do not consider any of the other five responses significantly more or less likely to occur than longer-term customers when a serious service

failure occurs. Table 7 presents an exposition of the means and p- and d-values that are indicative of statistically and practically significance differences between the means of the two groups.

Table 7: Likely responses of novice and longer-term customers

Likely customer response	Novice customers (mean)	Longer-term customers (mean)	p-value	d-value
I would complain to the cellphone network service provider	3.75	3.67	0.171	0.18
I would talk or communicate to other customers about the problem	3.49	3.52	0.639	0.05
I would not recommend this cellphone network service provider to my friends or relatives	3.10	3.06	0.481	0.09
I would not support this cellphone network provider in future	3.02	2.90	0.041*	0.27**
I would demand immediate and active involvement of a manager	3.00	2.86	0.14*	0.32**
I would leave my current cellphone network service provider for another in the future	2.95	2.69	0.000*	0.59**
I would never use this cellphone network service provider again	2.56	2.24	0.000*	0.72**
I would write a letter of complaint to the head office	2.51	2.42	0.162	0.20
I would complain to an external agency (e.g. newspaper)	2.12	2.11	0.838	0.02

* Statistically significant at a p-value of 0.05 or less

** Practically significant where a d-value of 0.2 is indicative of a small effect with no practical significance, a d-value of 0.5 is indicative of a medium effect whilst a d-value of 0.8 represents a large effect

As presented in Table 8, when respondents who are novice and longer-term customers of cellphone network service providers were asked to indicate their levels of agreement with statements representing possible service recovery strategies they would consider in the event of a serious service failure, both novice and longer-term customers agreed that the most preferred service recovery strategies are 'It is necessary for the cellphone network service provider to do something', 'Provide me with an explanation for the poor service' and 'Acknowledge that I was not properly treated'. 'Apologise to me in writing for the poor service I received' is the least preferred service recovery strategy for both novice and longer-term customers.

With regard to the preferred service recovery strategies of novice and longer-term cellphone network service provider customers when a serious service failure is experienced, the following differences were observed:

- Statistically significant and small to medium, and medium practically significant differences between novice and longer-term customers were found in the following five instances: 'It is necessary for the cellphone network service provider to do something' (small to medium effect), 'Provide me with some form of compensation (e.g. provide me with free airtime or reduce my contract fees)'(medium effect), 'Apologise to me verbally for the poor service I received' (small to medium effect), 'A supervisor has to intervene in the situation' (small to medium effect) and 'A manager has to intervene in the situation' (small to medium effect). Contract customers preferred 'It is necessary for the cellphone network service provider to do something' significantly more than novice customers (small to medium effect), but for the remaining four service recovery strategies, novice customers preferred them significantly more than longer-term customers when a serious service failure occurs (small to medium, and medium effects).
- Regarding the other three service recovery strategies, novice customers do not prefer any of them significantly more or less than longer-term customers when a serious service failure occurs. Table 8 presents an exposition of the means and p- and d-values that are indicative of statistically and practically significant differences between the means of the two groups.

Implications for managers and recommendations

The results of this study indicate that respondents experienced many service failures related to the cellphone network they use, with at least half of the respondents indicating that the cellphone network service providers' coverage is unavailable or inadequate; they experience dropped calls; and SMSs or MMSs do not go through. This finding is aligned with an early assertion in the paper that service failures in the cellphone service provider industry are pervasive, as indicated by Sutherland (2008) and McCormick (2003). Due to the maturity of the market and the increasing competition between cellphone service network providers for market share, it is important for a cellphone network service provider that wants to grow its market share to ensure that service failures are reduced. A reduction in service failures will increase customer satisfaction and loyalty over the long term. It was also indicated earlier that one way of doing so is for cellphone network service providers to invest

Table 8: Preferred service recovery strategies of novice and longer-term customers

Service recovery strategy	Novice customers (mean)	Longer-term customers (mean)	p-value	d-value
It is necessary for the cellphone network service provider to do something	4.26	4.39	0.018*	0.29**
Provide me with an explanation for the poor service	4.05	3.96	0.081	0.20
Acknowledge that I was not properly treated	3.85	3.77	0.093	0.18
Provide me with some form of compensation (e.g. provide me with free airtime or reduce my contract fees)	3.71	3.51	0.002*	0.45**
Apologise to me verbally for the poor service I received	3.59	3.40	0.001*	0.43**
A supervisor has to intervene in the situation	3.35	3.23	0.032*	0.27**
A manager has to intervene in the situation	3.28	3.15	0.029*	0.29**
Apologise to me in writing for the poor service I received	2.88	2.81	0.288	0.16

* Statistically significant at a p-value of 0.05 or less

** Practically significant where a d-value of 0.2 is indicative of a small effect with no practical significance, a d-value of 0.5 is indicative of a medium effect whilst a d-value of 0.8 represents a large effect

in infrastructure to overcome the service failures experienced by their customers and thereby gain a competitive edge over their rivals.

The results of the study furthermore indicate that a cellphone network service provider may to some extent differentiate the service recovery strategies it employs in reaction to the likely responses to service failures of customers, based on whether they are prepaid or contract customers. In a number of instances, contract customers agree significantly more with likely responses to a serious service failure than prepaid customers. A cellphone network service provider could thus differentiate its approach and focus strongly on crafting service recovery strategies to deal especially with contract customers.

When looking at statistically and practically significant results pertaining to the service recovery strategies that prepaid and contract customers prefer, not much differentiation is required between these two groups, except that contract customers might prefer a manager to intervene or prefer being given a written apology when a serious service failure occurs, compared with prepaid customers.

The results of this study indicate that the levels of agreement with likely responses to a service failure also differ on the basis of consumption stage (novice and longer-

term customers) in a number of instances, as suggested in the literature by Dagger and Sweeney (2007), and Bejou and Palmer (1998). A cellphone network service provider should approach novice customers who have experienced a service failure with extra care, since they feel more strongly about the likely responses they would consider in the event of a serious service failure than longer-term customers. The results indicated that novice customers would leave the current cellphone network service provider for another or never use the cellphone network service provider again. This suggests that novice customers who experience service failures, and do not experience service recovery strategies to overcome the service failure, will exhibit switching behaviour.

When it comes to service recovery strategies, a cellphone service provider could also differentiate in the emphasis it places on the range of service recovery strategies it uses, since novice and longer-term customers have expressed significantly different levels of agreement in relation to suitable service recovery strategies when a serious service failure has occurred. The main service recovery strategy that could be implemented includes providing some form of compensation (such as airtime) to novice customers, as this resulted a medium practically significant result. This result coincides with Dagger and Sweeney's (2007) results that novice customers require more tangible recovery strategies. Other service recovery strategies could include apologising for the mistake, or the intervention of a supervisor or manager.

Limitations of the research

This research was limited in that it was conducted in only one province of South Africa (namely Gauteng) and is therefore not a reflection of the views of cellphone network service provider customers on a national level. It is therefore recommended that the research should be conducted in other provinces.

A convenience sample was drawn from the target population and based on the demographic profile of respondents; it may thus not be a true reflection of the target population. Since it would be difficult and time consuming to draw a probability sample of the target population, it is proposed that a similar study could in future look at narrower segments of the market, perhaps within a more limited geographic context, in order to get an accurate profile of cellphone network service provider customers within a particular suburb or township.

This study focused primarily on customer type and consumption stage as factors that could play a role in likely responses to service failures and the service recovery strategies that respondents prefer. A future study could also consider the impact of

other internal factors (emotions and personality) as well as external factors (income and lifestyle).

The study furthermore concentrated only on customers' views of service failures and their complaint behaviour. Future studies could include the effect of customer complaints on the employees of service providers. The study assumed that cellphone network service providers had service recovery strategies in place. Further studies could therefore also determine, from a service provider perspective, whether service recovery strategies are in place and whether these recovery strategies are deemed sufficient and effective by their customers.

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