

**THE RELATIONSHIP BETWEEN CUSTOMER SATISFACTION AND REVENUE –
AN EMPIRICAL STUDY WITHIN THE CORPORATE BANKING DIVISION OF A
SOUTH AFRICAN BANK**

By

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Declaration

I, Leonie Richter, hereby declare that this research thesis is my own original work, that all reference sources have been accurately reported and acknowledged, and that this document has not previously, in its entirety or in part, been submitted to any University in order to obtain an academic qualification.

L Richter

I. Integrative Summary

This is a quantitative study which explores whether there is a positive relationship between customer satisfaction as perceived by corporate customers and revenue generated from such customers of the corporate division of a single South African bank. This research report has three sections, namely the (1) academic paper which comprises a condensed literature review, research methods, results and discussion, (2) an expanded literature review, and (3) an expanded research methodology. Although these three sections are interrelated, they may be considered stand-alone documents.

A review of literature contends that customer satisfaction has been a topic of interest for over four decades when, in 1965, the concept was first introduced to literature by Cardozo. Even in these early stages it was hypothesized that higher customer satisfaction would lead to repeat purchasing and cross selling. Thus, for some time, researchers have proposed that a link exists between customer satisfaction and a company's bottom line, ultimately alluding to the notion of positive associations between customer satisfaction, revenue and profitability.

The corporate banking division of a South African bank has dedicated significant time and economic resources to monitoring and improving the satisfaction of their corporate customers each year. With a focus on this single corporate banking division, this quantitative study used secondary customer satisfaction data to establish whether a positive relationship between customer satisfaction with a bank representative or more formally termed, the 'transactional banker' (TB) and revenue at an account level exists. The study used a one-dimensional customer satisfaction construct summated from several variables or a one-dimensional multi item scale.

This quantitative study made use of secondary data obtained through customer satisfaction surveys conducted with the division's clients in three waves during

September 2010, March 2011 and September 2011. At the time of data collection, telephone interviews were conducted with individuals in corporations who were customers of the corporate division within the bank. These individuals in their respective corporations were identified and surveyed because they (a) managed the primary relationship of the corporation with the banking division and (b) were senior financial decision makers of their organization's (i.e. had the ability to influence a decision to change banks). Sample sizes of 273 (September 2010), 259 (March 2011) and 310 (September 2011) individual corporate customers were achieved through a method of stratified sampling. In this study, customers were stratified according to the TB who is responsible for their account. Within each stratum a random sample of 10 – 15 participants were included for each of the 30 TB's.

Monthly revenue data, recorded as a) credit revenue, b) overdraft revenue and c) total revenue was sourced from internal company records for each month from September 2010 to January 2012.

Pearson's correlation coefficient was used to assess whether a positive correlation between the two variables of customer satisfaction and revenue exists. This was followed by Ordinary Least Square Regression to investigate the magnitude and nature of the relationship between customer satisfaction and revenue using customer satisfaction as the independent variable and revenue as the response variable. Cronbach's alpha was also used for internal scale validity. The results of the research indicated no statistically significant relationship between a customer's satisfaction with the performance of their TB and either the credit, overdraft or total revenue generated from such a customer through their account. By highlighting this, these findings, nevertheless, contribute to the growing body of knowledge examining the impact of customer satisfaction efforts on revenue.

On the basis of the findings of this study, it cannot be practically recommended that customer satisfaction efforts be terminated or changed within the organization of study owing to several study limitations which were present. Firstly, the study was

hampered by small sample sizes due to a lack of the availability of revenue data in some instances, particularly in the case of overdraft revenue. Secondly, the study only focused on a single bank account held with the bank and increases and decreases in revenue based on the balances held within that single account. Since one of the purported consequences of improved customer satisfaction is the purchase of additional products, the current design of the study does not take into account the take up of additional accounts or banking products with the bank. Thus, an increase in revenue for the bank as a whole due to the purchase of additional accounts may be masked. Similarly, the scope of the study does not extend to examining the effect of recommendations made by these corporate customers to others and hence growth of divisional or bank revenue due to the addition of new customers. Finally, this quantitative study does not examine revenue growth when compared to customer satisfaction improvements over time due to a limited sample of customers taking part in the study over a number of periods as well as incomplete revenue data.

The recommendations for future research are to examine the relationship between *changes in customer satisfaction* and *changes in revenue* at divisional level in the long run within the South African banking industry as the impact of an increase in customer satisfaction may be obscured by salient factors in the short run. It is also suggested that future research look at the correlation between dissatisfaction and revenue, where adequate sample sizes are available.

Theoretically, the results of this research do bring into serious question the universal application, especially in the context of the South African banking industry of the Service Profit Chain and Satisfaction Profit Chain which propagate the existence of a positive relationship between customer satisfaction and revenue.

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Section 1: Academic Paper

1.1. Abstract

Guided by the notion that there is a link between customer satisfaction and revenue, many companies have dedicated significant time and economic resources to monitoring and improving customer satisfaction. With a focus on the corporate division of a single South African bank, this quantitative study used secondary customer satisfaction data to establish whether a positive relationship between corporate customers' satisfaction with a bank representative or more formally termed the 'transactional banker' (TB), and revenue generated from such customer's exists. The data was collected telephonically from customers of the bank's corporate division during three surveys conducted during September 2010, March 2011 and September 2011.

A total sample of 842 individual corporate customers (across all three waves) was achieved through stratified sampling. Pearson's correlation was used to assess whether customer satisfaction was positively correlated with revenue followed by Ordinary Least Squares Regression to assess the magnitude and nature of the relationship between the two variables. Cronbach's Alpha was used for internal scale validity.

The findings indicated no statistically significant relationship between a customer's satisfaction with the performance of their transactional banker and either the credit, overdraft or total revenue generated from such a corporate customer at the account level. It was however not recommended that customer satisfaction efforts of the bank be terminated or modified based on these findings.

Theoretically, the results of this research contribute to the growing body of knowledge examining the impact of customer satisfaction efforts on revenue. Furthermore, the findings bring into question the universal application of the Service Profit Chain and Satisfaction Profit Chain, particularly at the account level in a corporate banking context. Future research needs to examine the long term relationship between *changes* in customer satisfaction and *changes* in revenue at a divisional or firm level

1.2. Introduction

Customer satisfaction has been a topic of interest for over four decades when the concept of customer satisfaction was first introduced to literature by Cardozo in 1965. Even in these early stages authors hypothesized that higher customer satisfaction would lead to repeat purchasing and cross selling (Chiu, Cheng, Yen and Hu, 2011:1).

Subsequently, researchers have proposed that there exists a link between customer satisfaction and a company's bottom line. Theories such as the Satisfaction Profit Chain (Anderson and Mittal, 2000) and the Service Profit Chain (Heskett, Sasser and Schlesinger, 1994) support this notion of positive associations between customer satisfaction, revenue and profitability.

Much of the empirical research around customer satisfaction has in the past been centered on measuring customer satisfaction without linking this to actual financial outcomes or bottom line performance (Webster, 2005). Mindful of this gap, several academics (see Brown, 2005; Webster, 2005; Lehmann, 2004 and Srivastava, 1998) have suggested that there is a need for more focused studies which demonstrate the impact of marketing efforts, such as improved customer satisfaction, on business and financial performance. In the light of this, a number of researchers have explored the linkages between customer satisfaction and broad business and financial outcomes. For example, Anderson and Sullivan, 1993; Bolton and Drew, 1991, Lam *et al*, 2004, Williams and Naumann, 2011 and Mittal and Kamakura, 2001 have researched the relationship between customer satisfaction and intention to repurchase, likelihood to recommend and customer retention. Following this, higher customer satisfaction, retention and loyalty have been linked to increased revenue, profits and cashflows through the works of authors such as Rust and Zahorik, 1993; Ittner and Larker, 1998; Heskett *et al*, 1994, Reicheld and Teal, 1996; Winkler and Schwaiger, 2004 and Williams and Naumann, 2011 amongst others.

Mittal and Kamakura (2001:131) asserted that customer satisfaction had become a “*strategic imperative*” for organisations. As such, the concept of customer satisfaction has received increasing attention as companies globally seek to measure and understand its implications. Cognizant that organizations set aside significant resources to address customer relationship management and satisfaction, this study seeks to assess whether a positive relationship exists between customer satisfaction and revenue within the context of the corporate division of a single South African banking institution. This division within the larger bank has dedicated significant time and economic resources to monitoring and improving the satisfaction of their corporate banking customers each year. While most of the prior studies mentioned above focus on satisfaction of the customer with the bank as a whole or a division therein, this study will focus on satisfaction of the customer with their bank representative or more formally termed, transactional banker (TB). This quantitative research thus hypothesizes that a positive relationship exists between a customer’s level of satisfaction with their TB and the revenue generated from such a customer through their cash management account held with the bank i.e. higher satisfaction with the TB is associated with higher revenue generation.

Similar research done by Winkler and Schwaiger (2004:11) which echoed the need for an industry focus, notes that by examining customer satisfaction data spanning a cross section of industries, “*research has so far often neglected potential industry idiosyncrasies in estimating the consequences of changes in customer satisfaction*”. Furthermore, many of the studies done to date have been conducted at a macro level of analysis using large customer satisfaction databases. In view of this macro-level analysis, Berhardt *et al* (2000) contend that decision makers in senior positions often want to see the financial effects of improved customer satisfaction demonstrated at their firm or divisional level rather than the macro-level. In the light of this, this study focuses on the corporate division of a single South African bank where the analysis is conducted at an account level.

Initially, this paper will focus on defining the concept of customer satisfaction before linking this concept to revenue. Subsequently, the paper discusses the research

method used in this study and finally, presents and discusses the findings of the study.

1.3. Literature Review

This section seeks to explore the theoretical and empirical issues relevant to customer satisfaction, as well as the link between customer satisfaction and revenue.

1.3.1. Defining Customer Satisfaction

While the exploration of customer satisfaction dates back to the start of the seventies when research on this topic began (Oliver, 1977 and Anderson, 1973), efforts to measure, compare and interpret such research were difficult as researchers were unable to agree on a single definition of customer satisfaction (Giese and Cote, 2002:1).

The term 'customer satisfaction' is made up of two distinct parts. In order to arrive at a suitable definition of the summative term, this paper examines the components of the phrase separately.

Customers

The terms 'customer', 'consumer' and 'client' are often used interchangeably (Molesworth *et al*, 2011:146 and Greener *et al*, 2009:7). As such, the distinction between the three is not always clear (Gerber and Bothma, 2008:72). This is particularly true when referring to satisfaction. Stein and Sloane (2003:10), define customers to be "*individuals who use an agency's facilities or seek services from an agency*". Similarly, Bacal (2005:6) defines a customer as "*the person who pays for goods and services which you provide.*" Adding the concept of an organisation as a customer, Goldner (2006:27) defines the term customer as "*any organisation or individual with which you have done business.*"

While it is recognised that subtle differences between the terms exist (Gerber and Bothma, 2008:71), for the purposes of this research it is taken that customer, consumer and client all refer to the consumer of a product, service or facility of the

bank in question. Therefore, these terms will be referred to and regarded as the same for all intent and purposes within the context of this paper.

For the purpose of this work, a 'customer' shall be defined as:

- A corporate organisation;
- Which makes use of the products, services or facilities offered by the corporate banking division of 'Bank X';
- In exchange for monetary payment.

Satisfaction

It appears that there is little consensus amongst researchers on the definition of 'satisfaction'. Oliver (2010:7) describes this disagreement by noting that *"everyone knows what it [satisfaction] is until asked to give a definition. Then it seems, nobody knows"*.

Grigoroudis and Siskos (2010:4) suggest that satisfaction is based on the consumption process and note the following 'parts' within this process: 1) satisfaction during the consumption process; 2) satisfaction at the end of the consumption process or with the conclusion and 3) satisfaction with the extent to which one is satisfied. *"Given these 'parts', satisfaction is thus defined in terms of singular events leading up to a consumption outcome (collective impression of these events), and finally to the entire experience judgment"* (Grigoroudis and Siskos, 2010:4).

Yi (1990) on the other hand, suggests that satisfaction can be defined based either on an outcome or as a process. The former provides a definition of satisfaction based on the final or end result post the consumption experience, whereas the latter focuses more on the perceptions, evaluations and psychology behind the consumption process.

The most popular definitions of satisfaction are based on customer expectations or requirements and how well these are met by the product or service (Grigoroudis and Siskos, 2010:4). Authors including Gerson (1993), Hill and Alexander (2006) and Vavra (1997) define satisfaction as *“a standard of how the offered ‘total’ product or service fulfils customer expectations”* (Grigoroudis and Siskos, 2010:4).

Oliver (2010:8) further defines ‘satisfaction’ by concluding that *“satisfaction is the consumer’s fulfillment response. It is a judgment that a product / service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment.”*

Customer Satisfaction

In response to the significant problem of numerous and varied definitions of customer satisfaction in early studies by researchers at the time (Gardial *et al*, 1994; Peterson and Wilson, 1992; Yi, 1991); Giese and Cote (2002) set out to develop a universal definitional framework which was based on cohesive views within literature as well as the views of customers themselves. Based on their research which looked at commonalities in literature as well as 13 group consumer in-depth interviews and 25 individual consumer in-depth interviews, these authors concluded that customer satisfaction is a *“summary affective response of varying intensity,[...] with a time-specific point of determination and limited duration,[...] directed toward focal aspects of product acquisition and / or consumption”* (Giese and Cote, 2002:2), where the type and intensity of affective response, the point of determination, likely duration and focus of interest should be defined by the context to which the customer satisfaction is applied. From the above definition, it can be concluded that the definition applicable to customer satisfaction is one which is contextual and thus should be amended to suit the context to which it applies.

Thus, utilizing the three aspects provided by the framework, as well as the definitions of the summative parts of the term ‘customer satisfaction’, this paper defines

customer satisfaction within the context of the banking sector, with specific reference to a transactional banker (TB) as:

A summative affective response of variable intensity by a corporate organisation which is making use of the products, services and / or facilities of the corporate division of bank X, facilitated by a transactional banker, in exchange for monetary payment, where such response is based on a collective impression of consumption events specifically pertaining to the transactional banker, up to the point of conducting the survey.

The choice of the above definition follows the reasoning by Anderson *et al* (1994) who note that “*cumulative satisfaction is a more fundamental indicator of the firm’s past, current, and future performance. It is cumulative satisfaction that motivates a firm’s investment in customer satisfaction.*”

1.3.2 Linking Customer Satisfaction and Revenue

Both the Satisfaction Profit Chain and the Service Profit Chain propose linkages between improved customer satisfaction and increased profits and / or revenue.

1.3.2.1 The Satisfaction Profit Chain

The Satisfaction Profit Chain (Figure 1) essentially asserts that *“by improving product and service attributes, customer satisfaction should increase. Increased customer satisfaction is expected to lead to greater customer retention and improved customer retention leads to greater profitability”* (Anderson and Mittal, 2000:107).



Figure 1: The Satisfaction Profit Chain (Anderson and Mittal, 2000:107)

According to Anderson and Mittal (2000:107), the Satisfaction Profit Chain stems from systems thinking. Improved retention, a consequence of improved customer satisfaction, leads to increases in profitability, driven by revenue growth and the reduced cost associated with servicing satisfied customers. These researchers argue that while the satisfaction profit chain is founded on a sound conceptual base, backed by a number of studies showing positive relationships within the chain, it is important to realize that the links in the model are asymmetric and nonlinear. (Anderson and Mittal, 2000:107)

An example is found in an article by Heskett *et al* (1994) who, based on a quantitative analysis of the customer base of Xerox, found that customer loyalty amongst customers who were described as ‘delighted’ (i.e. a top box customer satisfaction rating), was considerably higher than those who were only ‘satisfied’ (i.e. giving a second box rating).

1.3.2.2 The Service Profit Chain

Heskett *et al*'s (1994) Service Profit Chain, which is essentially an extension of the Satisfaction Profit Chain, proposes that internal service quality (e.g. workspace, employee remuneration and rewards etc) is driven by growth in profits and revenue. This in turn, contributes to employee satisfaction. Satisfied employees are more productive and stay with a company for longer. Employees that are productive and experienced in their jobs tend to deliver a higher level of service to customers, resulting in more satisfied customers. Similarly, this leads to customer loyalty and retention which then drives revenue growth and profitability.

Even without directly focusing on internal service quality, this model is of particular relevance within the context of the current research where it is proposed that customer satisfaction with the performance of an employee (the Transactional Banker) is associated with higher revenues.

1.3.2.3 How Does Customer Satisfaction Affect Revenue?

Both the Service Profit Chain and Satisfaction Profit Chain propose that high customer satisfaction leads to improved customer loyalty and / or retention, which is then associated with increased revenue and / or profit. However, a number of other benefits of high customer satisfaction have been identified in literature which also could explain increased profits and / or revenue. In this vein, Anderson *et al* (1994:55) assert that *“in general, high customer satisfaction should indicate increased loyalty for current customers, reduced price elasticity’s, insulation of current customers from competitive efforts, lower costs of future transactions, reduced failure costs, lower costs of attracting new customers, and an enhanced reputation for the firm.”*

It is instructive that the main concern of this research is the link between customer satisfaction and revenue rather than profits. Figure 2 below provides a summary of the proposed drivers of improved revenue as a result of higher customer satisfaction.

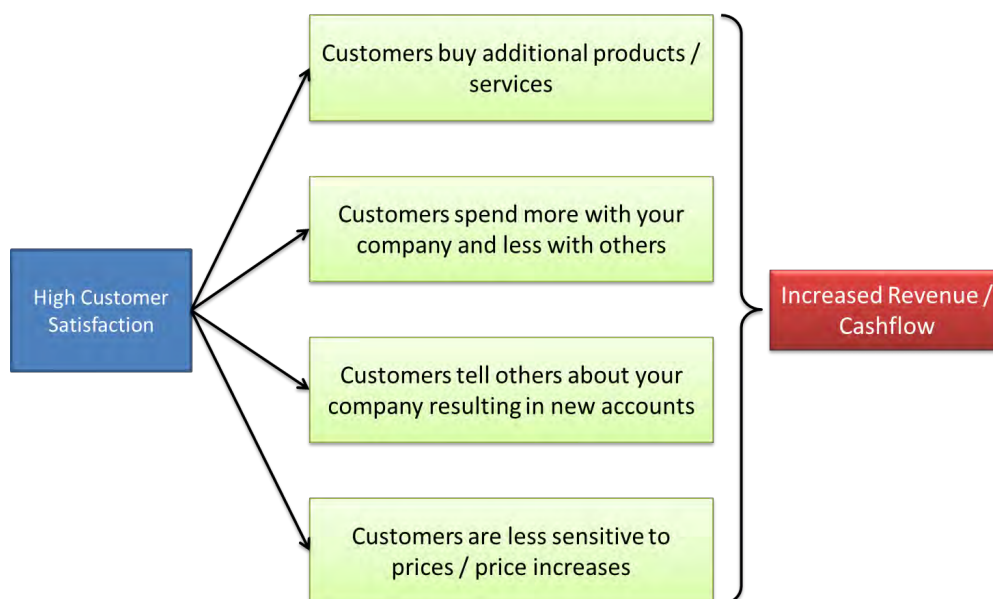


Figure 2: Summary of How Customer Satisfaction Could Result in Increased Revenue, Authors own work

Anderson and Sullivan, 1993; Bolton *et al*, 2000; Fornell, 1992; Fornell *et al*, 2006; Reichheld and Sasser, 1990 and Seiders *et al*, 2005 propose that increases in revenue are the consequence of customers buying additional products and services from a supplier, while Cooil, *et al*, 2007 and Keiningham *et al*, 2003 suggest that such increases are as a result of a service provider gaining a larger share of wallet from satisfied customers i.e. customers spending a larger portion of their budget with a particular supplier. It can also be argued that increased revenues could be as a result of the acquisition of new customers, based on the recommendations of satisfied customers (Williams and Naumann, 2011). Similarly, Homburg and Furst, 2005 and Reichheld and Sasser, 1990 have attributed the increased cashflows associated with higher customer satisfaction to satisfied customers having a lower price sensitivity.

1.3.2.4 Customer Satisfaction and Revenue

Research around the relationship between customer satisfaction and revenue has yielded inconsistent results. While some authors (see Rust and Zahorik, 1993; Ittner and Larker, 1998; Winkler and Schwaiger, 2004; Williams and Naumann, 2011 and Yu, 2007) have found grounds for a positive relationship between customer satisfaction and revenue, other studies have found insufficient evidence to support such a relationship (see Silvestro, 1997; Bernhardt *et al*, 2000, and Pritchard and Silvestro, 2005)

Rust and Zahorik (1993) developed a mathematical model which demonstrated the positive impact of a change in customer satisfaction on customer retention, market share and thus revenue (defined as net contribution margin) in the retail banking sector. Their findings concluded that *“an improvement in average satisfaction from 4.2 to 4.7 is expected to increase the annual retention rate from 95.9 to 96.5 percent and market share from 21.0 percent to 21.4 percent. This shift may seem small, but depending on the size of the market the result can be a substantial shift in revenues”* (Rust and Zahorik, 1993:205).

Sometime later, Ittner and Larker (1998:1) examined the question, *“are customer satisfaction measures leading indicators of accounting performance?”* In doing so, these authors examined whether *“current satisfaction levels for individual customers are associated with changes in their future purchase behavior and firm revenues”* (Ittner and Larker, 1998:5). Thus, Ittner and Larker (1998) looked at a sample of 2,491 business customers of a telecommunications firm. Ordinary least squares regression of the association between customer level satisfaction scores and customer retention, revenue and change in revenue revealed that customer satisfaction was positively related to customer retention, revenue and change in revenue. More specifically, the findings indicated that a ten-point increase in customer satisfaction index was associated, on average, with a 2% increase in retention, a \$194.64 revenue increase, and 3% higher revenue change.

Furthermore, a study by Winkler and Schwaiger (2004) examined the long term impact of customer satisfaction on the operating revenue of four banks in the Austrian banking industry. Customer satisfaction data spanning 15 years was based on 4,000 direct customer surveys conducted by one of the banks in the industry and covered both their own customers and the customers of 3 main competitors. Customers were asked to evaluate their overall satisfaction with their bank on a seven-point scale. This study found that a 1% increase in the growth rate of satisfaction is accompanied by a 0,209% rise in revenue growth. Furthermore, it was found that this impact takes 1.5 years to take effect (Winkler and Schwaiger, 2004:19).

Another study by Williams and Naumann (2011) investigated the impact of customer satisfaction on revenue within a Fortune 100 company in the USA over a period of 5 years. Several hypotheses were tested, among them the hypothesis that *“changes in customer satisfaction are positively related to changes in total revenue at the firm level”* (Williams and Naumann, 2011: 22). The study concluded that the *“top two customer satisfaction score improved by 17 percentage points over the 19 quarters. Simultaneously, total revenue for the firm grew 56%, net income grew 183%, and earnings per share grew 101%”* (Williams and Naumann, 2011:26).

Likewise, the work of Yu (2007) analysed customer satisfaction data of the savings account customers of 36 retail bank branches of an international finance institution located in Taiwan. In this study, Yu (2007:11) found that *“the impact of current customer satisfaction on current revenues, one-period ahead revenues, and two-period ahead revenues is significantly positive”* for the international retail banking group in question.

Contrary to the findings of the above authors, Silvestro (1997) found there to be no performance relationship present between customer satisfaction and revenue within the context of the corporate customers of a large European telecommunications firm. Silvestro (1997) did however, find a significant negative correlation between customer dissatisfaction and revenue in the same context. A 2005 study by Pritchard and Silvestro applying the proposed links of Heskett *et al*’s (1994) Service Profit Chain to a firm within the UK retail grocery sector found the link between

customer satisfaction and financial performance (measured by revenue growth and net profit growth) to be absent.

Similarly, a 2000 study by Bernhardt *et al* which looked at the relationship between customer satisfaction and sales in the fast food industry in the USA using longitudinal data from multiple firms, found that there was an insignificant relationship between overall satisfaction and sales – both at time t . The research did however support the hypothesis that there is a positive relationship between customer satisfaction in previous time periods (i.e. time $t - x$, where $x = 1, 2, 3$ etc) and current sales (i.e. at time t).

Looking within a South African context, a review of the literature revealed that in 2005, Le Roux explored the correlation between customer satisfaction and profitability within the context of the South African vehicle industry. More specifically, the research used satisfaction data obtained through telephonic interviews with customers of the Ford Motor Group. The research findings “*strongly supports the hypothesis of the direct correlation between profit and customer satisfaction, until a point where profiteering becomes evident, upon which customer satisfaction deteriorates*” (Le Roux, 2005: 91). Another author, Terblanche (2006) explored the concept of customer satisfaction and used the American Customer Satisfaction Index (ACSI) to explain and predict customer retention in the South African motor vehicle industry.

The works of authors including Ittner and Iarker (1998), Silverstro (1997), Prichard and Silvertro (2005), Bernhardt *et al* (2000) and Le Roux (2005) have addressed the topic of customer satisfaction and its relationship to revenue within sectors such as telecommunications, fast food and the motor industry, the current research is set to focus specifically on the banking industry. This is similar to the works done by Rust and Zahorik (1993) and Winkler and Schwaiger (2004), with the exception being that the research will focus specifically on a single retail bank within South Africa, as opposed to an industry wide study. The current study thus closely resembles the work of Yu (2007) in Taiwan, however the focus of this study will be on the commercial banking customers of a South African bank.

1.3.3. Operationalizing Customer Satisfaction

It is notable that different authors have conceptualized and operationalised the term 'customer satisfaction' in various different ways in previous research. While some authors make use of multiple dimensions to derive overall satisfaction (see Rust and Zahorik, 1993 and Ittner and Larker, 1998) others use a single dimensional customer satisfaction score to arrive at their findings (see Winkler and Schwaiger, 2004; Westbrook, 1980; Swan and Martin, 1981; Fornell, 2004; Anderson *et al*, 1994 and Bernhardt *et al*, 2000; Williams and Naumann, 2011; Peterson and Wilson, 1992).

In conceptualizing customer satisfaction, Griffin and Hauser, 1992 note that *"determining which service attributes most determine customer satisfaction commonly involves focus groups and one-on-one interviews"*. Using this approach, Rust and Zahorik (1993) came up with a list of nine attributes which they used to define customers' *"ongoing relationship with their 'primary' bank"*. These included:

- The friendliness of the bank
- How well the managers know me
- How well the bank listens to my needs
- How many money machines the bank has around town
- How many tellers are available at busy times
- The cost of checking
- How close the bank is to my home
- How close the bank is to my place of employment
- How convenient the bank is to my route to work

A random sample of 100 customers were asked to rate their satisfaction with the bank in terms of the above attributes on a 1 to 5 scale, with 1 labelled as "very dissatisfied" and 5 labelled as "very satisfied."

As alluded to earlier, the 1998 study by Ittner and Larker which researched whether customer satisfaction measures were leading indicators of accounting performance by looking at a sample of 2,491 business customers of a telecommunications firm

also made use of a multi-dimensional customer satisfaction construct. These authors used three questions which were then weighted using Partial Least Squares (PLS) in such a way as to ensure that the index had the maximum correlation with the expected economic consequences. The three questions included overall satisfaction with the service (from 1 = not satisfied at all to 10 = extremely satisfied), the extent to which the service had fallen short or exceeded customer expectations (from 1 = has not met expectations to 10 = exceeded expectations), and how well the service compared with the ideal service (from 1 = not at all ideal to 10 = absolutely ideal).

On the other hand, there are also some researchers who have used a one-dimensional characterization of customer satisfaction in assessing the link between customer satisfaction and financial performance (Winkler and Schwaiger, 2004; Westbrook, 1980; Swan and Martin, 1981; Fornell, 2004; Anderson *et al*, 1994 and Bernhardt *et al*, 2000; Williams and Naumann, 2011; Peterson and Wilson, 1992).

For example, Winkler and Schwaiger (2004) used a one-dimensional characterization of customer satisfaction in their 2004 study which incorporated around 60,000 interviews conducted over a period of 15 years. In these interviews, customers were asked to evaluate their overall satisfaction with their bank on a seven-point scale which was then transformed to a 0 to 100 scale. For this study, average overall satisfaction was defined as *“the mean per bank of all satisfaction evaluations resulting from the survey of the bank’s clients”* (Winkler and Schwaiger, 2004:15).

Williams and Naumann (2011) in their study of the impact of customer satisfaction on revenue within a Fortune 100 company in the USA over a period of 5 years also used a single-dimensional construct to assess customer satisfaction. Customer satisfaction was assessed on a five-point scale with response categories ranging from very satisfied to very dissatisfied. *“A “top-two” score was calculated as the proportion of responses in the satisfied and very satisfied categories”* (Williams and Naumann, 2011:23). These researchers sighted the need to keep the questionnaire

short and improve response rates as the reason for this approach. *“While the use of single-item rather than multi-item scales can be criticized due to the obvious compromise on construct validity, the simplified scales were considered appropriate by the researchers because they were consistently used over a long period of time, were easy to understand, and were easy to utilize”* (Williams and Naumann, 2011:24).

The use of a one-dimensional indicator of customer satisfaction has however attracted some criticism, especially by those academics who focus on the components and dimensions of customer satisfaction. While Winkler and Swaiger (2004:15) acknowledge that *“one-dimensional data will almost certainly be of limited use for diagnostic means”*, these authors also contend that *“a balanced view of multi- and single dimensional definitions however has to take the intended use of the satisfaction data into account.”* Winkler and Schwaiger (2004) thus consider the use of a one-dimensional indicator of customer satisfaction appropriate for the purposes of their paper since several researchers (see Anderson *et al*, 1994; Bernhardt *et al*, 2000 and Peterson and Wilson, 1992) have made use of a similar characterization of customer satisfaction when examining the link between satisfaction and profits.

For the purposes of this study, a single customer satisfaction score is constructed by taking the arithmetic mean of the ratings of six attribute statements which relate to a customer's bank representative or more formally termed 'transactional banker' (TB). These include:

- 1) **Overall satisfaction** with your transactional banker
- 2) Degree of satisfaction that your transactional banker **understands your company's banking needs**
- 3) Degree of satisfaction that your transactional banker is **knowledgeable of Bank X's products and solutions**
- 4) Degree of satisfaction that your transactional banker **provides relevant advice that adds value to your business**

- 5) Degree of satisfaction that your transactional banker **is available when you need him or her.**
- 6) Degree of satisfaction that your transactional banker **responds to requests promptly.**

Customers were asked to provide an indication of their level of satisfaction with the performance of their transactional banker with regard to the above attributes on a scale of 1 to 10, where 1 is completely dissatisfied and 10 = completely satisfied. The arithmetic mean of these 6 scores provides a single aggregated indicator of customer satisfaction with TB.

It is instructive to note that the use of these attributes in measuring customer satisfaction does not follow specific literature or precedents set by other authors but rather were chosen specifically by the banking organization as attributes of interest and importance in their particular relationship management model. The appropriateness and validity of these dimensions in defining customer satisfaction is not mainly within the scope of this study, but should be addressed better by future researchers who wish to add more empiricism to the research.

1.3.4. The Measures

A selection of measures was used to investigate the hypotheses.

Total Customer Satisfaction with TB: As mentioned, a single score which indicated summative satisfaction of a customer with the performance of their TB was formulated by calculating the simple arithmetic mean of the individual scores of the six attributes pertaining to the TB which were outlined previously.

An example of the calculation is illustrated in Table 1 below.

Table 1: Arithmetic Mean Calculation of Total Customer Satisfaction with TB
Indicator

	Rating on Scale of 1 to 10, where 1 = completely dissatisfied and 10 = completely satisfied
1) Overall satisfaction with TB	10
2) Understands your business banking needs	9
3) Has knowledge and expertise of Bank X's products and solutions	10
4) Provides relevant advice that helps you meet your business needs	10
5) Is available when you need him or her	10
6) Responds to requests promptly	10
Total Customer Satisfaction with TB	9.833

Other key or technical terms used in this study are defined as follows:

Cashman Credit Revenue: Revenue at an account level generated from the positive balances in a client's cash management account. This data was sourced from internal company records. Such revenue is a function of the size of the balance held in this particular account.

Cashman Overdraft Revenue: Revenue at an account level generated from the overdrawn balances in a client's cash management account. This data was sourced from internal company records. Such revenue is a function of the size of the overdraft balance in this particular account.

Total Cashman Revenue: Total revenue was obtained by summing the cash management account credit revenue and the overdraft revenue.

It is noted that the revenue figures contained in the data pertained only to a single account type (cash management account) held with the corporate division within the bank and not to the clients entire portfolio with the bank.

1.4. Research Design

1.4.1. Research Goals

The primary goal of the research was to explore the relationship between total customer satisfaction with transactional bankers as perceived by clients, and revenue generated from such clients within the corporate banking sector of a single South African bank. To pursue this goal, the following hypotheses were explored using secondary data from all three waves of the study:

H1: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman credit revenue at the account level.

H2: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman overdraft revenue at the account level.

H3: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly total cashman revenue at the account level.

1.4.2. Research Method

The study used preexisting survey data and thus, no field data was collected specifically for the purposes of this research paper. The banking institution in question has been collecting quantitative data on the level of customer's satisfaction with their transactional bankers, using an independent market research house on a bi-annual basis since September 2010, when the first study was conducted. The secondary data used was collected from 3 surveys during September 2010, March 2011 and finally, September 2011.

The bi-annual (every six months) surveys conducted by the independent market research house achieved sample sizes of 273 (September 2010), 259 (March 2011) and 310 (September 2011) through a method of stratified sampling and made use of a questionnaire. Customers were stratified according to the transactional banker who was responsible for their account. Following this approach, within each strata a random sample of 10 – 15 participants were included in the study by the independent research house for each of the 30 transactional bankers.

During the collection of the data, individuals who held the primary relationship with the banking division were identified and interviewed telephonically. These individuals were deemed to be in an acceptable position to be surveyed as they were senior financial decision makers of their organizations' (i.e. had the ability to influence a decision to change banks) and they held the primary relationship with the transactional banker being assessed. Telephonic interviews were chosen as they are less time consuming i.e. took only 10 minutes of a respondent's time; and thus maximized participation rates. This is similar to the approach taken by Williams and Naumann (2011).

1.4.3. Analytical Techniques

The analysis of the data incorporated three basic analytical techniques, namely Cronbach's alpha, Pearson's Correlation and Ordinary Least Squares Regression.

First, Cronbach's alpha was calculated to measure the internal reliability of the summated attribute rating scale for customer satisfaction with TB.

Following this, the pairs of variables were subjected to Pearson's correlation analysis for each of the three waves under study. The purpose of the analysis was to assess whether there exists a positive correlation between total customer satisfaction with TB and a) credit revenue, b) overdraft revenue and c) total revenue. The first, correlation analysis was done between total customer satisfaction with TB, and average monthly cashman credit revenue. Another correlation analysis was conducted between total customer satisfaction with TB and average monthly overdraft revenue and the final correlation analysis was conducted between total customer satisfaction with TB and average monthly total cashman revenue.

Regression analysis is a widely accepted tool for analysing the relationship amongst variables and, whilst it does not reveal cause and effect relationships, it does indicate the extent to which variables are associated with one another (Schief, 2009). The data was subjected to ordinary least squares regression in order to determine the strength and nature of the relationship between customer satisfaction with TB (in this case the independent variable) and revenue (in this case the response variable). The regression analysis was performed for all three waves of the study, with a) credit revenue, b) overdraft revenue and c) total revenue as the response variables in turn.

It is notable that both average monthly credit revenue and average monthly overdraft revenue (and thus total average monthly revenue) data for the period September 2010 to January 2012 was not available in all cases. In some instances, participants did not have a credit and / or an overdraft balance in their cash management

account which would result in the account revenue being nil for any given month. For this reason, n-values in the analysis following were largely variable.

While data was initially recorded in Microsoft Excel 2010, analysis was conducted using IBM SPSS Statistics 19.

1.5. Results

Before commencing with the analysis, it was necessary to verify the internal consistency of the total customer satisfaction with TB indicator. This was done by calculating Cronbach's Alpha for each of the three waves of the study. Kent (2001:221) notes that *"there is little guidance in the literature (and none from Cronbach himself) as to what constitutes an 'acceptable' or 'sufficient' value for alpha to achieve. Most users of the statistic cite Nunnally's (1978) recommendation that a value of 0.7 should be achieved. It is assumed that if alpha for any scale is greater than 0.7 then it is acceptable."* Thus, for the purposes of this paper, a Cronbach's alpha of 0.7 was deemed to be acceptable.

Table 2: Cronbach's Alpha – September 2010

Reliability Statistics – SEPTEMBER 2010

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.941	.942	6

Table 3: Cronbach's Alpha – March 2011

Reliability Statistics – MARCH 2011

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.914	.917	6

Table 4: Cronbach's Alpha – September 2011

Reliability Statistics – SEPTEMBER 2011

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.917	.918	6

In each of the three waves, the Cronbach's alpha exceeded 0.9. This was thus a sufficient indication that the multi-item summated rating scales used for customer satisfaction with TB were internally reliable.

Hypothesis 1: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman credit revenue at the account level.

Correlation analysis between the total customer satisfaction with TB and average monthly cashman credit revenue was calculated for the three waves of the study in order to assess whether a positive correlation exists between total customer satisfaction with TB and credit revenue. Such correlations were calculated between the total customer satisfaction with TB in the month of study (i.e. September 2010, March 2011 and September 2012) and average cashman credit revenue in the month of study and for all months following the study up until January 2012.

Table 5: Correlation Analysis between Total Customer Satisfaction with TB and Average Monthly Cashman Credit Revenue

		Total Customer Satisfaction with TB								
		Pearson Correlation	Sig. (2-tailed)	N	Pearson Correlation	Sig. (2-tailed)	N	Pearson Correlation	Sig. (2-tailed)	N
Average Monthly Cashman Credit Revenue		September 2010 - Wave 1			March 2011 - Wave 2			September 2011 - Wave 3		
	September 2010	.022	.866	64						
	October 2010	.016	.897	68						
	November 2010	.024	.850	67						
	December 2010	.000	.998	66						
	January 2011	.012	.926	66						
	February 2011	.027	.830	65						
	March 2011	.048	.705	64	-.036	.741	86			
	April 2011	.044	.730	64	-.035	.749	86			
	May 2011	.012	.925	64	-.039	.718	87			
	June 2011	.011	.933	64	-.053	.629	87			
	July 2011	.010	.935	64	-.049	.653	87			
	August 2011	.006	.960	64	-.040	.714	88			
	September 2011	.006	.964	65	-.043	.686	89	-.066	.520	96
	October 2011	-.001	.997	64	-.045	.671	90	-.082	.427	97
	November 2011	-.008	.949	65	-.042	.694	91	-.063	.539	96
	December 2011	-.064	.614	64	-.027	.801	90	-.004	.972	97
	January 2012	-.063	.619	64	-.039	.716	89	.002	.984	98

The correlation between total Wave 1 customer satisfaction with TB and average monthly cashman credit revenues revealed weak positive correlations ranging from 0 (December 2010) to 0.048 (March 2011) for the 12 months following the study. Thereafter, from October 2011, weak negative correlations between total customer satisfaction with TB and average monthly cashman credit revenue are evident with the largest negative correlation of -0.64 being recorded in December 2011 or 15 months following the first wave of the satisfaction survey. Correlations are not significant at the $p < 0.01$ level.

Correlation analysis between Wave 2 total customer satisfaction with TB data and average monthly cashman credit revenues reveals consistently weak negative correlations between these two variables. The largest negative correlation of -0.053 occurs in June 2011, or approximately 3 months after Wave 2 of the satisfaction survey. The weakest correlation of -0.027 is evident in December 2011 or 9 months following the study. Correlations are not significant at the $p < 0.01$ level.

Wave 3 correlations between total customer satisfaction with TB and average monthly cashman credit revenue are also negative with the exception of the correlation between total customer satisfaction with TB in September 2011 and the average cashman credit revenue in January 2012, which is positive at 0.002 four months after the satisfaction survey. While all Wave 3 correlations are relatively weak, the strongest correlation is seen in the month following the third wave survey i.e. October 2011 and is -0.082. Correlations are not significant at the $p < 0.01$ level.

The results of the ordinary least squares regression between total customer satisfaction with TB and credit revenue for September 2010, March 2011 and September 2011 are displayed in Tables 6 to 8 below.

Table 6: Simple Linear Regression Between Total Customer Satisfaction with TB
and Credit Revenue – September 2010

Model Summary – September 2010 (Credit Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.022 ^a	.000	-.016	846552.255

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2010

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.071E10	1	2.071E10	.029	.866 ^a
Residual	4.443E13	62	7.167E11		
Total	4.445E13	63			

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2010

b. Dependent Variable: Credit Revenue – September 2010

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	304551.253	718247.966		.424	.673
Total Customer Satisfaction with TB – Sept 2010	14250.491	83821.622	.022	.170	.866

a. Dependent Variable: Credit Revenue – September 2010

Table 7: Simple Linear Regression Between Total Customer Satisfaction with TB
and Credit Revenue – March 2011

Model Summary – March 2011 (Credit Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.036 ^a	.001	-.011	1447283.216

a. Predictors: (Constant), Total Customer Satisfaction with TB – March 2011

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.296E11	1	2.296E11	.110	.741 ^a
Residual	1.759E14	84	2.095E12		
Total	1.762E14	85			

a. Predictors: (Constant), Total Customer Satisfaction with TB – March 2011

b. Dependent Variable: Credit Revenue – March 2011

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	950067.351	1295712.414		.733	.465
Total Customer Satisfaction with TB – March 2011	-49822.318	150469.312	-.036	-.331	.741

a. Dependent Variable: Credit Revenue – March 2011

Table 8: Simple Linear Regression Between Total Customer Satisfaction with TB
and Credit Revenue – September 2011

Model Summary – September 2011 (Credit Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.066 ^a	.004	-.006	1408918.301

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2011

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.278E11	1	8.278E11	.417	.520 ^a
Residual	1.866E14	94	1.985E12		
Total	1.874E14	95			

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2011

b. Dependent Variable: Credit Revenue – September 2011

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1258116.216	1169353.493		1.076	.285
Total Customer Satisfaction with TB – September 2011	-.87884.976	136093.233	-.066	-.646	.520

a. Dependent Variable: Credit Revenue – September 2011

The results of the regression analysis between total customer satisfaction with TB and credit revenue for all three waves of the research produce R-squared values which are small (0 in September 2010, 0.001 in March 2011 and 0.004 in September 2011). While the September 2010 model indicates a one point increase in total customer satisfaction with the TB is associated with an increase in credit revenue of R14,250.49, both the March 2011 and September 2011 models predict a drop in credit revenue of R49,822.32 and R87,844.98 respectively for a one point increase in total customer satisfaction with TB.

The models for all three waves of the data pertaining to total customer satisfaction with TB and credit revenue were not significant at the 1% level of significance. (September 2010: $F = 0.029$, $df = (1,62)$, $p = 0.866$; March 2011: $F = .110$, $df = (1,84)$, $p = 0.741$; September 2011: $F = 0.417$, $df = (1,94)$, $p = 0.52$).

Hypothesis 2: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman overdraft revenue at the account level.

Correlation analysis between the total customer satisfaction with TB and average monthly cashman overdraft revenue was calculated for the three waves of the study in order to assess whether a positive correlation exists between total customer satisfaction with TB and overdraft revenue. Such correlations were calculated between the total customer satisfaction with TB in the month of study (i.e. September 2010, March 2011 and September 2012) and average cashman overdraft revenue in the month of study and for all months following the study up until January 2012.

Table 9: Correlation Analysis between Total Customer Satisfaction with TB and Average Monthly Cashman Overdraft Revenue

		Total Customer Satisfaction with TB								
		Pearson Correlation	Sig. (2-tailed)	N	Pearson Correlation	Sig. (2-tailed)	N	Pearson Correlation	Sig. (2-tailed)	N
Average Monthly Cashman Overdraft Revenue		September 2010 - Wave 1			March 2011 - Wave 2			September 2011 - Wave 3		
	September 2010	.077	.727	23						
	October 2010	.069	.765	21						
	November 2010	.151	.526	20						
	December 2010	.080	.730	21						
	January 2011	.131	.560	22						
	February 2011	.198	.463	16						
	March 2011	.152	.534	19	-.044	.803	34			
	April 2011	.191	.434	19	.216	.213	35			
	May 2011	.064	.777	22	.160	.365	34			
	June 2011	.108	.652	20	.030	.866	34			
	July 2011	.087	.686	24	.116	.500	36			
	August 2011	.118	.590	23	.100	.575	34			
	September 2011	.142	.561	19	-.047	.809	29	.051	.801	27
	October 2011	.176	.445	21	.021	.908	32	.086	.682	25
	November 2011	.221	.350	20	-.072	.696	32	.058	.777	26
	December 2011	.298	.230	18	-.154	.418	30	-.302	.239	17
	January 2012	.126	.576	22	-.160	.343	37	-.138	.512	25

Correlation analysis of the Wave 1 customer satisfaction data with the average monthly cashman overdraft revenues produced positive, but weak correlations for all months following the month of study. The strongest correlation of 0.298 is evident in December 2011, with the weakest correlation of 0.064 occurring in May 2011. These correlations are however not significant at the $p < 0.01$ level.

The results of the correlation analysis conducted using the Wave 2, March 2011 customer satisfaction data and subsequent average monthly cashman overdraft revenues produced both weak negative and weak positive correlations. During March 2011, the month of the second wave of the satisfaction study, the correlation between the total customer satisfaction with TB and average cashman overdraft revenue is negative at -0.044. Subsequent to this, for the months April 2011 to August 2011, the results show positive coefficients for the correlation between total customer satisfaction with TB and average monthly cashman overdraft revenue ranging from 0.03 (June 2011) to 0.216 (April 2011). From September 2011 to January 2012 however, the results reveal a negative correlation between total customer satisfaction with TB and average monthly cashman overdraft revenue, with the exception of October 2011, where the correlation is positive 0.021. The negative correlation coefficients range between -0.047 (September 2011) and -0.16 (January 2012). No correlations are significant at the $p < 0.01$ level.

Correlation coefficients between total customer satisfaction with TB in September 2011 and average monthly cashman overdraft revenue from September 2011 to November 2011 are weak, but positive ranging from 0.051 in September 2011 to 0.086 in October 2011. The correlation coefficients between total Wave 2 customer satisfaction with TB and the cashman overdraft revenue in the final two months of the research period under study i.e. December 2011 and January 2012 are weak and negative at -0.302 and -0.138 respectively. No correlations are significant at the $p < 0.01$ level.

The results of the ordinary least squares regression between total customer satisfaction with TB and overdraft revenue for September 2010, March 2011 and September 2011 are displayed in Tables 10 to 12 below.

Table 10: Simple Linear Regression Between Total Customer Satisfaction with TB and Overdraft Revenue – September 2010

Model Summary – September 2010 (Overdraft Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.077 ^a	.006	-.041	95577.604

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2010

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.144E9	1	1.144E9	.125	.727 ^a
Residual	1.918E11	21	9.135E9		
Total	1.930E11	22			

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2010

b. Dependent Variable: Overdraft Revenue – September 2010

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	15845.804	95949.430		.165	.870
Total Customer Satisfaction with TB – September 2010	4010.988	11333.786	.077	.354	.727

a. Dependent Variable: Overdraft Revenue – September 2010

Table 11: Simple Linear Regression Between Total Customer Satisfaction with TB
and Overdraft Revenue – March 2011

Model Summary – March 2011 (Overdraft Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.044 ^a	.002	-.029	55357.575

a. Predictors: (Constant), Total Customer Satisfaction with TB – March 2011

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.938E8	1	1.938E8	.063	.803 ^a
Residual	9.806E10	32	3.064E9		
Total	9.826E10	33			

a. Predictors: (Constant), Total Customer Satisfaction with TB – March 2011

b. Dependent Variable: Overdraft Revenue – March 2011

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	57785.750	88575.346		.652	.519
Total Customer Satisfaction with TB – March 2011	-2557.079	10168.258	-.044	-.251	.803

a. Dependent Variable: Overdraft Revenue – March 2011

Table 12: Simple Linear Regression Between Total Customer Satisfaction with TB and Overdraft Revenue – September 2011

Model Summary – September 2011 (Overdraft Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.051 ^a	.003	-.037	114236.345

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2011

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.438E8	1	8.438E8	.065	.801 ^a
Residual	3.262E11	25	1.305E10		
Total	3.271E11	26			

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2011

b. Dependent Variable: Overdraft Revenue (September 2011)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-7441.895	254443.545		-.029	.977
1 Total Customer Satisfaction with TB – September 2011	7339.171	28862.596	.051	.254	.801

a. Dependent Variable: Overdraft Revenue (September 2011)

The results of the linear regression analysis conducted with overdraft revenue as the response variable and total customer satisfaction with TB as the independent variable produced R-square values of 0.6% (September 2010), 0.2% (March 2011) and 0.3% (September 2011). The September 2010 regression model predicted a R4,010.99 increase in overdraft revenue for every one point increase in total customer satisfaction with TB. The March 2011 results however indicate a drop of R2,557.08 in overdraft revenue associated with a one point increase in total customer satisfaction with TB, while the September 2011 regression results again predict an increase in overdraft revenue of R7,339.17 associated with a one point increase in total customer satisfaction with TB.

The models for all three waves of the data pertaining to total customer satisfaction with TB and overdraft revenue were not significant at the 1% level of significance (September 2010: $F = 0.125$, $df = (1,21)$, $p = 0.727$; March 2011: $F = .063$, $df = (1,32)$, $p = 0.803$; September 2011: $F = 0.065$, $df = (1,25)$, $p = 0.801$).

Hypothesis 3: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman total revenue at the account level.

Correlation analysis between the total customer satisfaction with TB and average monthly cashman total revenue was calculated for the three waves of the study in order to assess whether a positive correlation exists between total customer satisfaction with TB and total revenue. Such correlations were calculated between the total customer satisfaction in the month of study (i.e. September 2010, March 2011 and September 2012) and cashman total revenue in the month of study and for all months following the study up until January 2012.

Table 13: Correlation Analysis between Total Customer Satisfaction with TB and Average Monthly Cashman Total Revenue

		Total Customer Satisfaction with TB								
		Pearson Correlation	Sig. (2-tailed)	N	Pearson Correlation	Sig. (2-tailed)	N	Pearson Correlation	Sig. (2-tailed)	N
Average Monthly Cashman Total Revenue		September 2010 - Wave 1			March 2011 - Wave 2			September 2011 - Wave 3		
	September 2010	.023	.856	67						
	October 2010	.016	.894	68						
	November 2010	.019	.877	68						
	December 2010	-.001	.992	68						
	January 2011	.009	.939	68						
	February 2011	.028	.819	67						
	March 2011	.053	.667	67	-.042	.694	90			
	April 2011	.053	.670	67	-.039	.709	92			
	May 2011	.012	.925	67	-.040	.707	92			
	June 2011	.011	.927	67	-.056	.596	91			
	July 2011	.014	.910	67	-.051	.629	91			
	August 2011	.011	.928	67	-.043	.684	92			
	September 2011	.001	.995	67	-.051	.627	92	-.072	.481	99
	October 2011	-.002	.988	66	-.049	.643	92	-.081	.426	99
	November 2011	-.009	.943	66	-.043	.684	92	-.068	.505	99
	December 2011	-.057	.652	65	-.032	.759	92	-.006	.953	99
	January 2012	-.068	.590	65	-.044	.678	90	.004	.971	99

Correlation analysis conducted for the September 2010 wave of the research produced both weak positive and weak negative correlations between the total customer satisfaction with TB and average cashman total revenue. For September 2010, and all following months up until September 2011, correlation coefficients are weak, but positive and range from 0.001 (September 2011) to 0.053 (March and April 2011). This is with the exception of December 2010, during which a weak negative correlation of -0.001 was recorded. One year after the wave 1 customer satisfaction survey was conducted (i.e. from October 2011), the correlations between the total satisfaction with TB and total cashman revenue become negative ranging from -0.002 to -0.068. No correlations are significant at the $p < 0.01$ level.

Wave 2 correlation results produced weak negative correlations between total customer satisfaction with TB in March 2011 and average monthly total cashman revenue for all months under study. The strongest correlation of -0.056 was recorded in June 2011, approximately three months following the study, while the weakest correlation of -0.032 occurred in December 2011.

The Wave 3 correlation analysis produced a similar result in that all correlations between the total customer satisfaction with TB for September 2011 and average monthly total cashman revenue are weak and negative, with the exception of the correlation between total customer satisfaction with TB in September 2011 and the average total cashman revenue for January 2012 which was weak but positive (0.004). Negative correlation coefficients ranged from -0.006 in December 2011 to -0.081 in October 2011.

The results of the linear regression between total customer satisfaction with TB and total revenue for September 2010, March 2011 and September 2011 are displayed in Tables 14 to 16 below.

Table 14: Simple Linear Regression Between Total Customer Satisfaction with TB and Total Revenue – September 2010

Model Summary – September 2010 (Total Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.023 ^a	.001	-.015	829380.549

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2010

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2.271E10	1	2.271E10	.033	.856 ^a
Residual	4.471E13	65	6.879E11		
Total	4.473E13	66			

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2010

b. Dependent Variable: Total Revenue – September 2010

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	299693.825	686880.026		.436	.664
1 Total Customer Satisfaction with TB – September 2010	14566.113	80171.705	.023	.182	.856

a. Dependent Variable: Total Revenue – September 2010

Table 15: Simple Linear Regression Between Total Customer Satisfaction with TB
and Total Revenue – March 2011

Model Summary – March 2011 (Total Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.042 ^a	.002	-.010	1414840.533

a. Predictors: (Constant), Total Customer Satisfaction with TB – March 2011

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	3.114E11	1	3.114E11	.156	.694 ^a
Residual	1.762E14	88	2.002E12		
Total	1.765E14	89			

a. Predictors: (Constant), Total Customer Satisfaction with TB – March 2011

b. Dependent Variable: Total Revenue – March 2011

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1001493.999	1244031.841		.805	.423
Total Customer Satisfaction with TB – March 2011	-56854.939	144139.274	-.042	-.394	.694

a. Dependent Variable: Total Revenue – March 2011

Table 16: Simple Linear Regression Between Total Customer Satisfaction with TB
and Total Revenue – September 2011

Model Summary – September 2011 (Total Revenue)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.072 ^a	.005	-.005	1385941.267

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2011

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	9.614E11	1	9.614E11	.501	.481 ^a
Residual	1.863E14	97	1.921E12		
Total	1.873E14	98			

a. Predictors: (Constant), Total Customer Satisfaction with TB – September 2011

b. Dependent Variable: Total Revenue – September 2011

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1306498.147	1136044.660		1.150	.253
1 Total Customer Satisfaction with TB – September 2011	-.93239.181	131792.919	-.072	-.707	.481

a. Dependent Variable: Total Revenue – September 2011

The results of the ordinary least squares regression analysis conducted where total revenue was the response variable and total customer satisfaction with TB was the independent variable produced R-square values of between 0.1% (September 2010), 0.2% (March 2011) and 0.5% (September 2011). While the September 2010 model indicates a one point increase in total satisfaction with the TB is associated with an increase in total revenue of R14,566.13, both the March 2011 and September 2011 models predict a drop in total revenue of R56,854.94 and R93,239.18 respectively for a one point increase in total customer satisfaction with TB.

The models for all three waves of the data pertaining to total customer satisfaction with TB and total revenue were not significant at the 1% level of significance (September 2010: $F = 0.033$, $df = (1,65)$, $p = 0.856$; March 2011: $F = .156$, $df = (1,88)$, $p = 0.694$; September 2011: $F = 0.501$, $df = (1,97)$, $p = 0.481$).

Summary of Results

Table 17 below provides a brief summary of the results of the data analysis.

Table 17: Summary of Results of Pearson's Correlation and Simple Linear Regression

	Hypothesis 1: Total Customer Satisfaction with TB and Credit Revenue	Hypothesis 2: Total Customer Satisfaction with TB and Overdraft Revenue	Hypothesis 3: Total Customer Satisfaction with TB and Total Revenue
	Pearson's Correlation		
September 2010	Positive and Negative Weak (strongest -0.064) Not significant*	Positive Weak (strongest 0.298) Not significant*	Positive and Negative Weak (strongest -0.068) Not significant*
March 2011	Negative Weak (strongest -0.053) Not significant*	Positive and Negative Weak (strongest 0.216) Not significant*	Negative Weak (strongest -0.056) Not significant*
September 2011	Positive and Negative Weak (strongest -0.082) Not significant*	Positive and Negative Weak (strongest -0.302) Not significant*	Positive and Negative Weak (strongest -0.081) Not significant*
	Simple Linear Regression		
September 2010	R-square: 0 β : R14,250.49 Model not significant*	R-square: 0.006 β : R4,010.99 Model not significant*	R-square: 0.001 β : R14,566.11 Model not significant*
March 2011	R-square: 0.001 β : -R49,822.32 Model not significant*	R-square: 0.002 β : -R2,557.08 Model not significant*	R-square: 0.002 β : -R56,854.94 Model not significant*
September 2011	R-square: 0.004 β : -R87,884.98 Model not significant*	R-square: 0.003 β : R7,339.17 Model not significant*	R-square: 0.005 β : -R93,239.18 Model not significant*
* At the 1% level of significance			

The above findings are discussed in the following section.

1.6. Discussion and Conclusion

The results of the investigation into the relationship between total customer satisfaction with TB and credit revenue as proposed by hypothesis 1 did not indicate a positive relationship between the two variables. While the results of the Pearson's correlation analysis yielded both weak positive and weak negative correlations between total customer satisfaction with TB and credit revenue, these were not found to be significant at the 1% level of significance.

Furthermore, the results of the simple linear regression indicated that a maximum of 0,4% (September 2011) of the variation in credit revenue, could be explained by the regression model. While the September 2010 (Wave 1) regression results implied a positive relationship between total customer satisfaction with TB and credit revenue ($\beta = R14,250.49$), the subsequent waves (March 2011 and September 2011) both implied a negative relationship between total customer satisfaction with TB and credit revenue. ($\beta = -R49,822.32$ and $\beta: -R87,884.98$ respectively). In all three cases, the models were not found to be significant at the $p < 0.01$ level.

The data thus did not provide evidence to support the hypothesis that there exists a positive relationship between total customer satisfaction with TB and credit revenue within the context of the corporate banking division under study. In all three cases, Cronbach's alpha confirmed the internal reliability of the scale used for total customer satisfaction with TB.

The second hypothesis proposed a positive relationship between total customer satisfaction with a TB and average monthly overdraft revenue at the account level. While the September 2010 correlation analysis suggested a positive correlation between total customer satisfaction with TB and average monthly overdraft revenue in September 2010 and subsequent months, these correlations were weak and not significant at the $p < 0.01$ level. Moreover, the March 2011 and September 2011

correlation analysis produced both positive and negative correlations between total customer satisfaction with TB and average monthly overdraft revenue at the account level. Again however, these correlations were weak and were not significant at the $p < 0.01$ level.

The results of the simple linear regression indicated that a maximum of 0,6% (September 2010) of the variation in overdraft revenue, could be explained by the regression model. While the September 2010 (Wave 1) and September 2011 (Wave 3) regression results implied a positive relationship between total customer satisfaction with TB and overdraft revenue ($\beta = R4,010.99$ and $\beta = R7,339.17$ respectively), the March 2011 wave of the research implied a negative relationship between total customer satisfaction with TB and overdraft revenue. ($\beta = -R2,557.08$). In all three cases however, the models were not found to be significant at the $p < 0.01$ level.

The data thus did not support the hypothesis that there exists a positive relationship between total customer satisfaction with TB and overdraft revenue within the context of the corporate banking division under study. In all three cases, Cronbach's alpha confirmed the internal reliability of the scale used for total customer satisfaction with TB.

The third and final hypothesis proposed a positive relationship between total customer satisfaction with a TB and average monthly total revenue at the account level. The results of the Wave 2 (March 2011) and 3 (September 2011) correlation analysis indicated mostly negative (but some positive) correlations between total customer satisfaction with TB and average monthly total revenue. These correlations were however not significant at the $p < 0.01$ level. Wave 1 (September 2010) correlation analysis on the other hand produced mostly positive (but some negative) correlations between total customer satisfaction with TB and average monthly total revenue. Again, these coefficients were not significant at the $p < 0.01$.

The results of the simple linear regression indicated that a maximum of 0,5% (September 2011) of the variation in total revenue, could be explained by the regression model. While the September 2010 (Wave 1) regression results implied a positive relationship between total customer satisfaction with TB and total revenue ($\beta = R14,566.11$), the subsequent waves (March 2011 and September 2011) both implied a negative relationship between total customer satisfaction with TB and total revenue. ($\beta = -R56,854.94$ and $\beta = -R93,239.18$ respectively). In all three cases, the models were not found to be significant at the $p < 0.01$ level.

The data thus did not support the hypothesis that there exists a positive relationship between total customer satisfaction with a TB and average monthly total revenue at the account level within the context of the corporate banking division under study. In all three cases, Cronbach's alpha confirmed the internal reliability of the scale used for total customer satisfaction with TB.

Although the results were hampered by small samples (less than 30) in some cases, the findings are consistent with the findings of Silvestro (1997), Bernhardt *et al* (2000) and Pritchard and Silvestro (2005) who also were not able to confirm the presence of a positive relationship between customer satisfaction and sales within various contexts.

While the findings are similar to the findings of Silvestro (1997), Pritchard and Silvestro (2005) and Bernhardt *et al* (2000) who found there to no performance relationship present between customer satisfaction and revenue, they are contrary to the findings of Le Roux (2005), Rust and Zahorik (1993), Ittner and larker (1998), Winkler and Swager (2004), Williams and Naumann (2011) and Yu (2007).

Several possible reasons for the lack of confirmation of the proposed positive relationship between total customer satisfaction with TB and revenue as found by the study are proposed. Firstly, the revenue generated from a customer as it pertains to

the cash management account is directly linked to the size of the balance (either positive or negative) held in the account. The revenue generated therefore, may be heavily impacted by a client's normal business activity of making payouts and / or receiving income during normal business activities. Thus, the balance held in the cash management account is likely to be influenced by a myriad of salient factors not addressed by this research, in addition to the level of satisfaction the client has with their bank representative.

A further possible reason for the lack of confirmation of a positive relationship between the variables examined would be the nature of financial decision making within corporate organizations. Corporate decision making may often be based on factors which are weighted more heavily than satisfaction such as convenience and pricing amongst others. Thus, the decision to increase or decrease the balance of funds held in an account may be influenced by more than satisfaction with the level of service delivered by the transactional banker.

Additionally, this research does not distinguish those corporate customer organizations that are multi-banked and those which only use a single bank. Intuitively, those which are multi-banked are able to increase the balance held with bank A and decrease that held with bank B should they be more satisfied with bank A, hence impacting revenue more readily than those who use only a single bank.

While the findings of this research are significant for the management of the division who have devoted significant time and resources to measuring, monitoring and improving customer satisfaction for some time, it is not recommended that these efforts be terminated or diminished based on the findings of this research. As outlined above, several reasons may explain the lack evidence to prove that a positive relationship between customer satisfaction with TB and revenue exists. This is compounded by a number of study limitations. Firstly, the study was hampered by small sample sizes due to a lack of the availability of revenue data, particularly in the case of overdraft revenue. Secondly, the study only focused on a single banking

account held with the bank and increases and decreases in revenue based on the balances held within that single account. Since one of the suggested consequences of improved customer satisfaction is the purchase of additional products, the current design of the study does not take into account the take up of additional accounts or banking products with the bank. Thus, an increase in revenue within another division and thus increased revenue for the bank as a whole may be masked. Similarly, the scope of the study does not extend to recommendations to others and hence growth of divisional or bank revenue due to the addition of new customers. Finally, the study does not examine revenue growth when compared to customer satisfaction improvements over time due to a limited sample of customers taking part in the study over a number of periods as well as incomplete revenue data.

It is recommended that future research should examine the relationship between changes in customer satisfaction and changes in revenue at the divisional level in the long run, similar to the works of Bernhardt *et al* (2000). These researchers suggest that the impact of an increase in customer satisfaction may be obscured by salient factors in the short run. In addition, it is suggested that future research examine the correlation between dissatisfaction and revenue, where adequate sample sizes are available, since Silvestro (1997) found dissatisfaction to be significantly negatively correlated with revenue. A similar finding within the context of the banking division under study would surely deter the relaxing of efforts to keep customers satisfied.

Finally, the results of this research do bring into question the universal application of the Service Profit Chain and Satisfaction Profit Chain, particularly at the account level within the context of corporate banking in South Africa.

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Section 2: Literature Review

2.1. Introduction

The following section reviews pertinent literature relating to customer satisfaction and the business and financial outcomes of improved customer satisfaction. The review forms the backdrop against which the link between customer satisfaction and revenue in a single South African bank is explored.

The section will begin with a discussion of the definition of customer satisfaction, followed by a review of the antecedents of customer satisfaction as proposed by literature. The paper then reviews the outcomes or consequences of customer satisfaction with a detailed focus on the financial outcomes, particularly revenue and the linkages proposed by the Satisfaction Profit Chain and the Service Profit Chain.

In concluding, the section briefly covers how the current work intends to contribute to the body of knowledge of this topic.

2.2. Defining Customer Satisfaction

While the exploration of customer satisfaction dates back to the start of the seventies when research on this topic began (Oliver, 1977 and Anderson, 1973), efforts to measure, compare and interpret such research were difficult as researchers were unable to agree on a single definition of customer satisfaction (Giese and Cote, 2002:1).

The term 'customer satisfaction' is made up of two distinct parts. In order to arrive at a suitable definition of the summative term, this paper examines the components of the phrase separately.

Customers

The terms 'customer', 'consumer' and 'client' are often used interchangeably (Molesworth *et al*, 2011:146 and Greener *et al*, 2009:7). As such, the distinction between the three is not always clear (Gerber and Bothma, 2008:72). This is particularly true when referring to satisfaction. Stein and Sloane (2003:10), define customers to be *"individuals who use an agency's facilities or seek services from an agency"*. Similarly, Bacal (2005:6) defines a customer as *"the person who pays for goods and services which you provide."* Adding the concept of an organisation as a customer, Goldner (2006:27) defines the term customer as *"any organisation or individual with which you have done business."*

While it is recognised that subtle differences between the terms exist (Gerber and Bothma, 2008:71), for the purposes of this research, it is taken that customer, consumer and client all refer to the end user of a product, service or facility of the bank in question. Therefore, these terms will be referred to and regarded as the same for all intent and purposes within the context of this paper.

For the purpose of this work, a 'customer' shall be defined as:

- A corporate organisation;
- Which makes use of the products, services or facilities offered by the corporate banking division of 'Bank X';
- In exchange for monetary payment.

Satisfaction

It appears that there is little consensus amongst researchers on the definition of 'satisfaction'. Oliver (2010:7) describes this disagreement by noting that *"everyone knows what it [satisfaction] is until asked to give a definition. Then it seems, nobody knows"*.

Grigoroudis and Siskos (2010:4) suggest that satisfaction is based on the consumption process and note the following 'parts' within this process: 1) satisfaction during the consumption process; 2) satisfaction at the end of the consumption process or with the conclusion and 3) satisfaction with the extent to which one is satisfied. *"Given these 'parts', satisfaction is thus defined in terms of singular events leading up to a consumption outcome (collective impression of these events), and finally to the entire experience judgment"* (Grigoroudis and Siskos, 2010:4).

Yi (1990) on the other hand, suggests that satisfaction can be defined based either on an outcome or as a process. The former provides a definition of satisfaction based on the final or end result post the consumption experience, whereas the latter focuses more on the perceptions, evaluations and psychology behind the consumption process.

The most popular definitions of satisfaction are based on customer expectations or requirements and how well these are met by the product or service (Grigoroudis and Siskos, 2010:4). Authors including Gerson (1993), Hill and Alexander (2006) and

Vavra (1997) define satisfaction as a “*standard of how the offered ‘total’ product or service fulfils customer expectations*” (Grigoroudis and Siskos, 2010:4).

Oliver (2010:8) further defines ‘satisfaction’ by concluding that “*satisfaction is the consumer’s fulfillment response. It is a judgment that a product / service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment.*”

Customer Satisfaction

In response to the significant problem of numerous and varied definitions of customer satisfaction in early studies by researchers at the time (Gardial *et al*, 1994; Peterson and Wilson, 1992; Yi, 1991); Giese and Cote (2002) set out to develop a universal definitional framework which was based on cohesive views within literature as well as the views of customers themselves. Based on their research which looked at commonalities in literature as well as 13 group consumer in-depth interviews and 25 individual consumer in-depth interviews, these authors concluded that customer satisfaction is a “*summary affective response of varying intensity,[...] with a time-specific point of determination and limited duration,[...] directed toward focal aspects of product acquisition and / or consumption*” (Giese and Cote, 2002:2), where the type and intensity of affective response, the point of determination, likely duration and focus of interest should be defined by the context to which the customer satisfaction is applied. From the above definition, it can be concluded that the definition applicable to customer satisfaction is one which is contextual and thus, should be amended to suit the context to which it applies.

Thus, utilizing the three aspects provided by the framework, as well as the definitions of the summative parts of the term ‘customer satisfaction’, this paper defines customer satisfaction within the context of the banking sector, with specific reference to a transactional banker (TB) as:

A summative affective response of variable intensity by a corporate organisation which is making use of the products, services and / or facilities of the corporate

division of bank X, facilitated by a transactional banker, in exchange for monetary payment, where such response is based on a collective impression of consumption events specifically pertaining to the transactional banker, up to the point of survey.

The choice of the above definition follows the reasoning by Anderson *et al* (1994) who note that “*cumulative satisfaction is a more fundamental indicator of the firm’s past, current, and future performance. It is cumulative satisfaction that motivates a firm’s investment in customer satisfaction.*”

Several elements of this definition are worth noting. First, the definition applies to the end user of the products, services and / or facilities or in other words, the consumer. Thus, while a monetary exchange is a requirement, the end user may or may not be the purchaser / buyer i.e. paying for the exchange, but he / she is the individual best positioned to assess the level of satisfaction since he or she is making use of the ‘goods’ (in this case a product, service and / or facility of the bank in question).

Second, the user of the ‘goods’ is being facilitated by a transactional banker (TB). This means that in order to utilize such ‘goods’, it is necessary for an interaction to take place between the consumer and the bank representative, or TB. In this specific firm context, such interaction could take place in person, telephonically or via e-mail.

Thirdly, the level of satisfaction is based on a collection of impressions, rather than a single impression at a distinct point in time. It is also noted that satisfaction in this definition is affective and thus is a subjective emotion or feeling rather than an objective fact. Hom (2000:102) notes, “*it [satisfaction] resides in the user’s mind and is different from observable behaviours such as product choice, complaining or repurchase.*”

2.3. Antecedents of Customer Satisfaction

Owing in part to the historical lack of agreement over the definition of satisfaction, as well as to the numerous dimensions used to assess this concept, the potential antecedents of customer satisfaction are similarly variable (Oliver, 2010; Rust and Oliver, 1994; Taylor and Baker, 1994).

The expectancy disconfirmation model (Oliver, 1980) asserts that the antecedents of customer satisfaction are based on two variables namely, pre-usage expectations and disconfirmation (Oliver, 1980; Yi, 1990; Peter and Olsen, 1996; Szymanski and Henard, 2001). Under this theory, the customer's perception of the service performance is weighed up against their expectations. Such expectations thus form the benchmark for comparison. This comparison is known as 'disconfirmation' or the gap between what was received and what was originally expected. Where product or service performance exceeds expectations, this leads to higher customer satisfaction (Churchill and Surprenant, 1982).

Cardotte *et al*, 1987 and Woodruff *et al*, 1983 contend that product and service experiences, rather than expectations, are a key driver of satisfaction, while others assert that the actual performance of the product or service forms the basis for satisfaction assessments (Bolton and Drew, 1991; Churchill and Surprenant, 1982). Churchill and Surprenant (1982) and Oliver and Desarbo (1988) also promote perceived quality as an antecedent of satisfaction.

Oliver leads another school of thought that proposes that satisfaction is preceded by the concept of equity (Oliver, 1997; Oliver 1993 and Oliver and Swan, 1989). "*Equity is a fairness, rightness, or deservingness judgment that consumers make in reference to what others receive*" (Oliver 1997:194). Oliver and Swan (1989:373) describe equity as "*applying to any exchange where a focal person invests inputs in a transaction and receives outcomes.*" These authors measured equity through the concepts of fairness and preference (Oliver 1989). Bolton and Lemon (1999) extend the idea of equity to include the idea of payment equity and contend that payment equity too, is an antecedent of customer satisfaction.

Bolton and Lemon (1999) also found usage levels to be a driver of customer satisfaction. *“Customers with low (actual) levels of use may perceive a service as highly equitable and may be satisfied because it is customer expectations of use that are critical, not actual use”* (Bolton and Lemon, 1999:183).

The authors Jamal and Naser (2002) suggest service quality to be an antecedent of satisfaction. In addition to varying opinions on the uniqueness of the concepts of satisfaction and service quality (Taylor and Baker, 1994; Anderson and Sullivan, 1993; Bolton and Drew, 1991), researchers also argue as to the causal relationship between these ideas. For example, Bitner's (1990) findings put forward the idea that satisfaction is in fact an antecedent of service quality which, given their research is contrary to the findings of Jamal and Naser (2002).

Jamal and Naser's (2002) findings also support the idea that customer expertise is a negative antecedent to customer satisfaction. That is, the higher the level of customer expertise, the lower their satisfaction. The findings of Garry (2010) support the idea that customer expertise is an influencer of customer satisfaction.

The above antecedents of customer satisfaction as explored by several authors are far from exhaustive, nor are most of the antecedents covered, mutually exclusive. The intention however was merely to highlight some of the antecedents, while covering those most prevalently noted in literature.

2.4. Customer Satisfaction Outcomes

The following section examines the outcomes or consequences of customer satisfaction as covered by various authors in literature.

According to Keiningham *et al* (2003:37), many researchers are in agreement that customer satisfaction impacts both customer intentions and customer behaviors which in turn, impact business performance.

Luo and Homburg (2007:134) define four types of outcomes of customer satisfaction: customer-related, employee-related, efficiency-related, and overall performance-related outcomes.

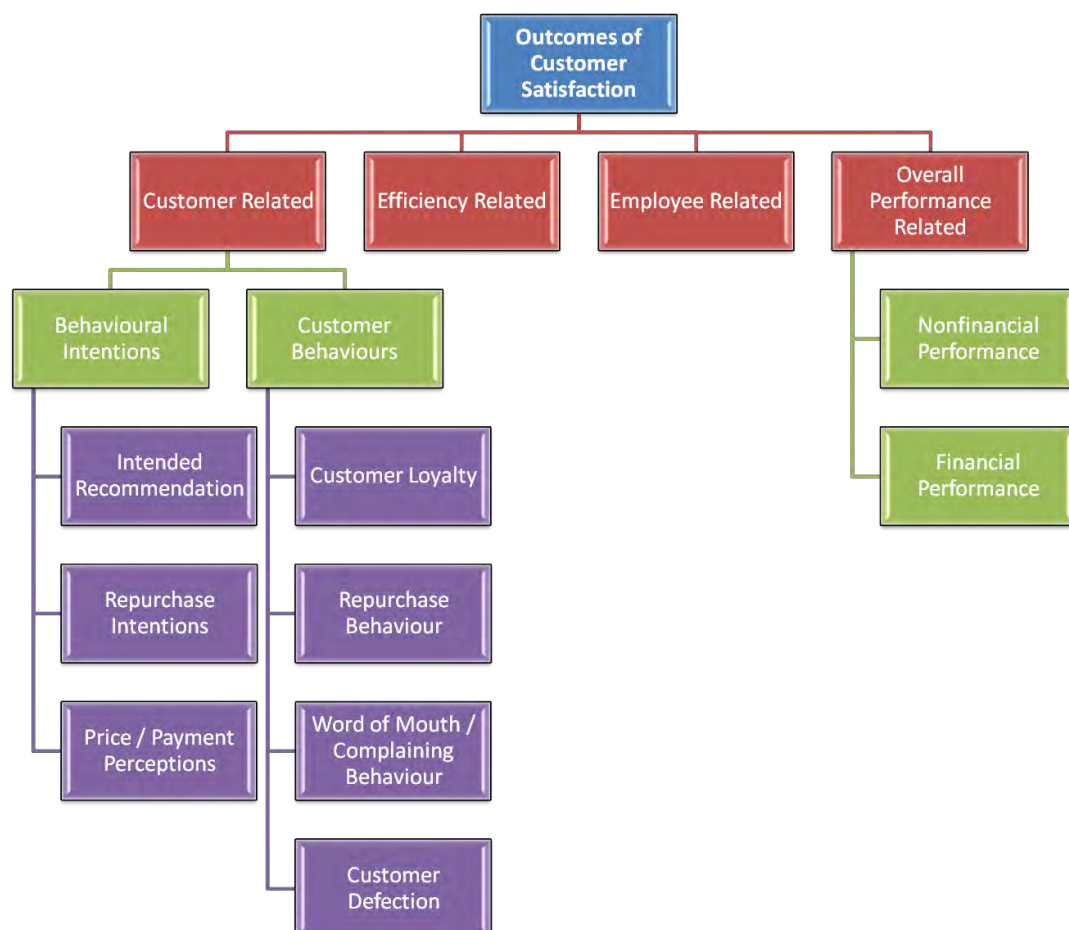


Figure 3: Outcomes of Customer Satisfaction (Luo and Homberg, 2007:134)

Luo and Homburg (2007:133) note that the first three categories i.e. customer related, efficiency related and employee related outcomes, provide justification for the impact of customer satisfaction on the bottom line, while the last category i.e. overall performance related, deals with those outcomes which directly affect the bottom line.

While the first three categories are covered briefly below, the focus of this section will be on financial related outcomes, in particular the impact of customer satisfaction on revenues which is covered under overall performance related outcomes.

2.4.1. Customer Related Outcomes

As outlined in Figure 10, customer related outcomes of customer satisfaction are separated into intentions and behaviours.

In the case of intentions, research has established that satisfaction exerts significant influences on intended customer commitment e.g. positive word of mouth intentions or recommendations to others (Gustaffson *et al*, 2005; Brown *et al*, 2005). The impact of customer satisfaction on repurchase intentions has also been extensively covered by Mittal and Kamakura (2001), Anderson and Sullivan (1993) and Yu (2007). Anderson and Sullivan (1993:141) concluded that *“satisfaction was found to have a positive impact on repurchase intentions”*. This was supported by the findings of Yu (2007:555) who noted that *“several dimensions of customer satisfaction are positively associated with individual customers’ repurchase intentions.”* The findings of Mittal and Kamakura (2001:140) indicated that while customer satisfaction was positively related to repurchase intentions, this relationship showed decreasing returns. *“The functional form relating rated satisfaction to repurchase intention differs from the functional form relating satisfaction to repurchase behavior. Whereas, the satisfaction-intention link shows decreasing return; the satisfaction-behaviour link shows increasing returns”* (Mittal and Kamakura, 2001:140).

Empirical research suggests that satisfied customers are less sensitive to pricing (Anderson, 1996 and Stock, 2005) as well as being intentionally willing to pay more (Anderson, 1996 and Homburg and Furst, 2005).

On the other hand, looking at customer behaviours, research has indicated that higher levels of customer satisfaction lead to improved customer loyalty (see Bolton, 1998; Fornell, 1992; Lam *et al*, 2004; Caruana, 2000; Liang and Wang, 2004 and Van Doorn and Verhoef, 2008).

The results of the work of Bolton and Lemon (1999:181) indicated that *“customers who have high levels of cumulative satisfaction with a continuously provided service*

in the current time period will have higher usage levels of the service in a subsequent time period.” Further to this, several researchers agree that there is a positive link between customer satisfaction and repurchase behaviour (Fornell *et al*, 2010; Mittal and Kamakura, 2001; Bolton and Lemon, 1999 and Fornell, 1992).

The research of Szymanski and Henard (2001), Oliver (1987) and Brown *et al* (2005) looked at the impact of customer satisfaction on word of mouth behaviour and complaints. The findings of Szymanski and Henard (2001:24) revealed that *“satisfied (dissatisfied) consumers are likely to be less (more) vocal consumers, on average”*, while Oliver (1987) explained consumer complaints as a means for customers to alleviate dissension. Brown *et al* (2005:134) concluded by noting that their research *“provides evidence that the relationship between satisfaction and WOM is more complex than previous research results suggest, with satisfaction having a more positive effect when commitment to the organization is low.”*

Finally, a number of researchers have attempted to examine the relationship between customer satisfaction and the customer related outcome of defections or conversely, customer retention. The works of Gustaffson *et al*, (2005), Ittner and Larcker (1998), Williams and Naumann (2011), Rust and Zahoric (1993), Anderson and Sullivan (1993), Hallowell (1996), Hennig-Thurau and Klee (1997) and Loveman (1998) all indicated that customer satisfaction has a negative effect on customer churn or defection across various industries including telecommunications, retail banking and business to business services amongst others. The findings of Ittner and Larcker (1998:13) however indicated that *“while customer satisfaction measures are leading indicators of customer purchase behavior, the evidence also indicates that the retention benefits from improved customer satisfaction diminished at higher satisfaction levels.”*

2.4.2. Efficiency and Employee Related Outcomes

Luo and Homburg (2007:133-134) note that the areas of efficiency and employee related outcomes have not received much attention by scholars. Anderson *et al* (1997) revealed a positive effect of customer satisfaction on the ratio of sales to employees and productivity in goods (but negative for services), while the research of Ryan *et al* (1996) established a positive influence of customer satisfaction on employee satisfaction.

In an attempt to fill this literature gap, Luo and Homburg (2007:133) explored the impact of customer satisfaction on advertising and promotional efficiency, with the results indicating that customer satisfaction *“boosts the efficiency of future advertising and promotion investments.”*

Further to this, these authors also investigated the relationship between customer satisfaction and human capital efficiency, with the results indicating that customer satisfaction *“has a positive influence on a company’s excellence in human capital (employee talent and manager superiority)”* (Luo and Homburg, 2007:133).

2.4.3. Overall Performance Related Outcomes

Having briefly covered the first three outcomes of customer satisfaction, what remains is the final category of consequences of satisfaction i.e. overall performance related outcomes.

Overall performance outcomes are divided into those pertaining to financial outcomes and those nonfinancial in nature. A brief overview of the nature of nonfinancial outcomes is included below followed by an in-depth review of the financial related outcomes of customer satisfaction, with a particular focus on the outcomes affecting revenue.

2.4.3.1. Non-Financial Performance Related Outcomes

A number of studies have been conducted which explored the link between customer satisfaction and a) market share and share of wallet (Fornell, 1995; Rust and Zahorik, 1993 and Loveman, 1998), b) cross selling and cross buying (Van Doorn and Verhoef, 2008 and Loveman, 1998), c) share price (Aksoy *et al*, 2008 and William and Naumann, 2009) and d) risk (Tuli and Bharadwaj, 2009 and Fornell *et al*, 2006).

The relationship between customer satisfaction and the above variables has generally been proven to be positive, with the exception of risk where it has been found that increased customer satisfaction leads to a decrease in both overall and downside systematic and overall and downside idiosyncratic risk (Tuli and Bharadwaj, 2009:184).

2.4.3.2. Financial Performance Related Outcomes

Much of the empirical research around customer satisfaction has in the past been centered on measuring customer satisfaction without linking this to actual financial outcomes or bottom line performance (Webster, 2005). Mindful of this gap, several academics (see Brown, 2005; Webster, 2005; Lehmann, 2004 and Srivastava, 1998) have suggested that there is a need for more focused studies which demonstrate the impact of marketing efforts, such as improved customer satisfaction, on business and financial performance.

In 2001, Mittal and Kamakura (2001:131) asserted that customer satisfaction had become a “*strategic imperative*” for organisations. As such, the concept of customer satisfaction has received increasing attention as companies globally, seek to measure and understand its implications and the need to demonstrate the financial implications of customer satisfaction has become exceedingly important. In response to this, various authors have conducted research on the impact of customer satisfaction on cash flow growth and stability, return on investment (ROI), return on assets (ROA) and earnings per share (EPS) as well as shareholder value.

The findings of Gruca and Rego (2005) indicated that satisfaction positively impacts the growth and reduces the variability of future cash flows. The research of Fornell *et al* (2006) and Anderson *et al* (2004) supported this finding.

Anderson *et al* (2004) provided evidence of a positive relationship between customer satisfaction and shareholder value (measured by Tobin’s q). In addition, this study also provided evidence that the extent of this relationship is variable across industries. (Anderson *et al*, 2004:181).

Anderson *et al* (1994:63) concluded their research with the finding that “*an annual one-point increase in customer satisfaction has a net present value of \$7.48 million over five years for a typical firm in Sweden.*” This translated to a cumulative 11,5% increase in net income. This finding was supported by the later findings of Anderson

et al (1997) who concluded that there is a positive association between customer satisfaction and return on investment for both goods and services. While the results of Hallowell (1996) were inconclusive on whether customer satisfaction increased profitability in a single retail bank, the findings of research conducted by Rust and Zahorik (1993) indicated a positive association of perceived quality as rated by patients in the health care industry, with return on assets, earnings and net revenues.

A study by Fornell *et al* (2006) revealed that not only does customer satisfaction lead to surplus returns, but that these higher returns do not result in higher risk or in other words, *“satisfied customers are economic assets with high returns/low risk.”* (Fornell *et al*, 2006:3)

Later, the work of Williams and Naumann (2011) have reinforced the findings of earlier research that a strong positive correlation exists between customer satisfaction, earnings per share, stock price and Tobin's q.

2.5. Linking Customer Satisfaction and Revenue

Both the Satisfaction Profit Chain and the Service Profit Chain propose linkages between improved customer satisfaction and increased profits and / or revenue.

2.5.1. The Satisfaction Profit Chain

The Satisfaction Profit Chain essentially asserts that *“by improving product and service attributes, customer satisfaction should increase. Increased customer satisfaction is expected to lead to greater customer retention and improved customer retention leads to greater profitability”* (Anderson and Mittal, 2000:107).



Figure 4: The Satisfaction Profit Chain (Anderson and Mittal, 2000:107)

According to Anderson and Mittal (2000:107), the Satisfaction Profit Chain stems from systems thinking. Improved retention, a consequence of improved customer satisfaction, leads to increases in profitability, driven by revenue growth and the reduced cost associated with servicing satisfied customers. These researchers argue that while the satisfaction profit chain is founded on a sound conceptual base, backed by a number of studies showing positive relationships within the chain, it is important to realize that the links in the model are asymmetric and nonlinear. (Anderson and Mittal, 2000:107)

An example is found in an article by Heskett *et al* (1994) who, based on a quantitative analysis of the customer base of Xerox, found that customer loyalty amongst customers who were described as ‘delighted’ (i.e. a top box customer

satisfaction rating), was considerably higher than those who were only 'satisfied' (i.e. giving a second box rating).

2.5.2. The Service Profit Chain

Heskett *et al*'s (1994) Service Profit Chain, which is essentially an extension of the satisfaction profit chain, proposes that internal service quality (e.g. workspace, employee remuneration and rewards etc) is driven by growth in profits and revenue. This in turn, contributes to employee satisfaction. Satisfied employees are more productive and stay with a company for longer. Employees that are productive and experienced in their jobs tend to deliver a higher level of service to customers, resulting in more satisfied customers. Similarly, this leads to customer loyalty and retention which then drives revenue growth and profitability.

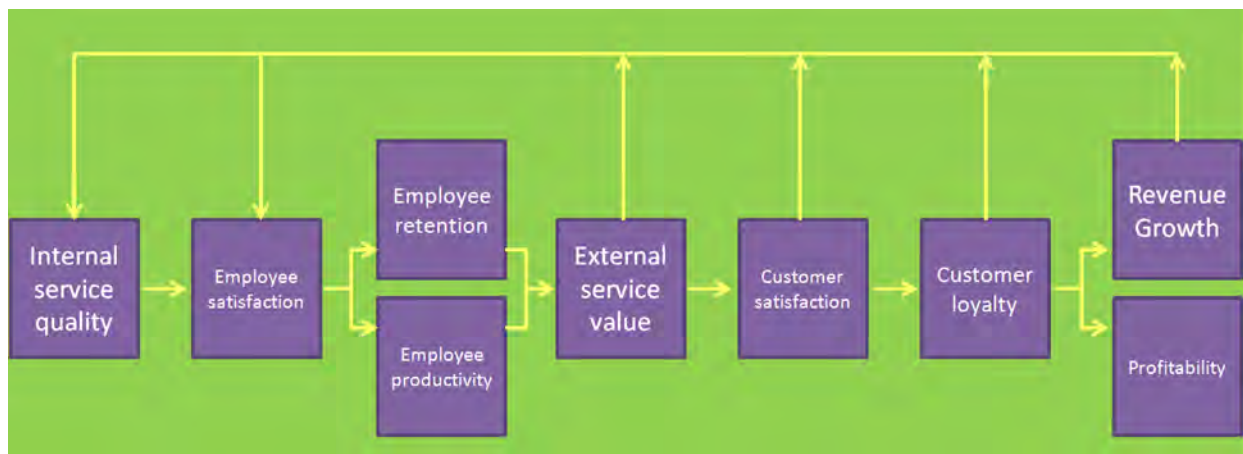


Figure 5: The Service Profit Chain (Heskett *et al*, 1994:166)

Focusing on customer satisfaction, the service profit chain contends that customer satisfaction leads to customer loyalty which translates to revenue growth. This is different from the satisfaction profit chain which contends that it is customer retention that links customer satisfaction and revenue growth. While these are different concepts, research has shown that both concepts are in fact consequences of customer satisfaction. (see customer related outcomes above).

Even without directly focusing on internal service quality, this model is of particular relevance within the context of the current research where it is proposed that

customer satisfaction with the performance of an employee (the Transactional Banker or TB) is associated with higher revenues.

2.5.3. How Does Customer Satisfaction Affect Revenue?

Both the Service Profit Chain and Satisfaction Profit Chain propose that high customer satisfaction leads to improved customer loyalty and / or retention, which is then associated with increased revenue and / or profit. However, a number of other benefits of high customer satisfaction have been identified in literature which also could explain increased profits and / or revenue. In this vein, Anderson *et al* (1994:55) assert that *“in general, high customer satisfaction should indicate increased loyalty for current customers, reduced price elasticity’s, insulation of current customers from competitive efforts, lower costs of future transactions, reduced failure costs, lower costs of attracting new customers, and an enhanced reputation for the firm.”*

It is instructive that the main concern of this research is the link between customer satisfaction and revenue rather than profits. Figure 2 below provides a summary of the proposed drivers of improved revenue as a result of higher customer satisfaction.

Anderson and Sullivan, 1993; Bolton *et al*, 2000; Fornell, 1992; Fornell *et al*, 2006; Reichheld and Sasser, 1990 and Seiders *et al*, 2005 propose that increases in revenue are the consequence of customers buying additional products and services from a supplier, while Cooil, *et al*, 2007 and Keiningham *et al*, 2003 suggest that such increases are as a result of a service provider gaining a larger share of wallet from satisfied customers i.e. customers spending a larger portion of their budget with a particular supplier. It can also be argued that increased revenues could be as a result of the acquisition of new customers, based on the recommendations of satisfied customers (Williams and Naumann, 2011). Similarly, Homburg and Furst, 2005 and Reichheld and Sasser, 1990 have attributed the increased cashflows

associated with higher customer satisfaction to satisfied customers having a lower price sensitivity.

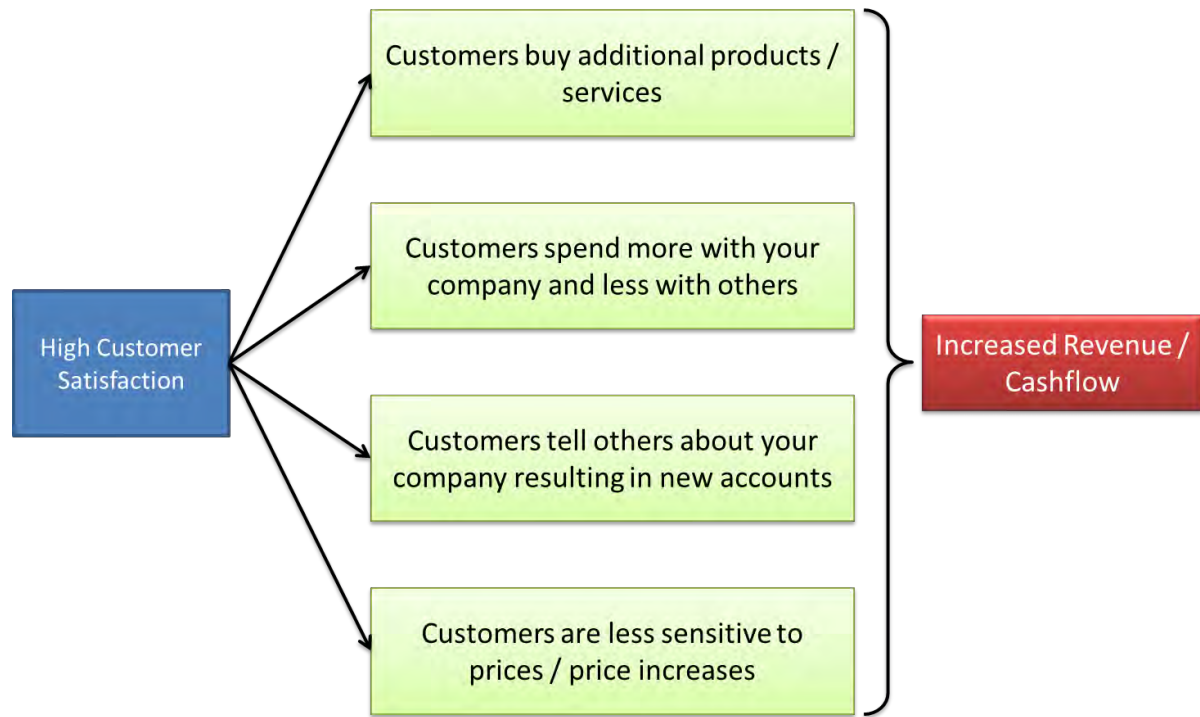


Figure 6: Summary of How Customer Satisfaction Could Result in Increased Revenue, Authors own work

2.5.4. Customer Satisfaction and Revenue

Research around the relationship between customer satisfaction and revenue has yielded inconsistent results. While some authors (see Rust and Zahorik, 1993; Ittner and Larker, 1998; Winkler and Schwaiger, 2004; Williams and Naumann, 2011 and Yu, 2007) have found grounds for a positive relationship between customer satisfaction and revenue, other studies have found insufficient evidence to support such a relationship (see Silvestro, 1997; Bernhardt *et al*, 2000, and Pritchard and Silvestro, 2005).

Rust and Zahorik (1993) developed a mathematical model which demonstrated the positive impact of a change in customer satisfaction on customer retention, market share and thus revenue (defined as net contribution margin) in the retail banking sector. Their findings concluded that *“an improvement in average satisfaction from 4.2 to 4.7 is expected to increase the annual retention rate from 95.9 to 96.5 percent and market share from 21.0 percent to 21.4 percent. This shift may seem small, but depending on the size of the market the result can be a substantial shift in revenues”* (Rust and Zahorik, 1993:205).

Sometime later, Ittner and Larker (1998:1) examined the question, *“are customer satisfaction measures leading indicators of accounting performance?”* In doing so, these authors examined whether *“current satisfaction levels for individual customers are associated with changes in their future purchase behavior and firm revenues”* (Ittner and Larker, 1998:5). Thus, Ittner and Larker (1998) looked at a sample of 2,491 business customers of a telecommunications firm. Ordinary least squares regression of the association between customer level satisfaction scores and customer retention, revenue and change in revenue revealed that customer satisfaction was positively related to customer retention, revenue and change in revenue. More specifically, the findings indicated that a ten-point increase in customer satisfaction index was associated, on average, with a 2% increase in retention, a \$194.64 revenue increase, and 3% higher revenue change.

Furthermore, a study by Winkler and Schwaiger (2004) examined the long term impact of customer satisfaction on the operating revenue of four banks in the Austrian banking industry. Customer satisfaction data spanning 15 years was based on 4,000 direct customer surveys conducted by one of the banks in the industry and covered both their own customers and the customers of 3 main competitors. Customers were asked to evaluate their overall satisfaction with their bank on a seven-point scale. This study found that a 1% increase in the growth rate of satisfaction is accompanied by a 0,209% rise in revenue growth. Furthermore, it was found that this impact takes 1.5 years to take effect (Winkler and Schwaiger, 2004:19).

Another study by Williams and Naumann (2011) investigated the impact of customer satisfaction on revenue within a Fortune 100 company in the USA over a period of 5 years. Several hypotheses were tested, among them the hypothesis that *“changes in customer satisfaction are positively related to changes in total revenue at the firm level”* (Williams and Naumann, 2011: 22). The study concluded that the *“top two customer satisfaction score improved by 17 percentage points over the 19 quarters. Simultaneously, total revenue for the firm grew 56%, net income grew 183%, and earnings per share grew 101%”* (Williams and Naumann, 2011:26).

Likewise, the works of Yu (2007) analysed customer satisfaction data of the savings account customers of 36 retail bank branches of an international finance institution located in Taiwan. In this study, Yu (2007:11) found that *“the impact of current customer satisfaction on current revenues, one-period ahead revenues, and two-period ahead revenues is significantly positive”* for the international retail banking group in question.

Contrary to the findings of the above authors, Silvestro (1997) found there to be no performance relationship present between customer satisfaction and revenue within the context of the corporate customers of a large European telecommunications firm. Silvestro (1997) did however find a significant negative correlation between customer dissatisfaction and revenues in the same context. A 2005 study by Pritchard and Silvestro applying the proposed links of Heskett *et al's* (1994) Service Profit Chain to a firm within the UK retail grocery sector found the link between customer

satisfaction and financial performance (measured by revenue growth and net profit growth) to be absent.

Similarly, a 2000 study by Bernhardt *et al* which looked at the relationship between customer satisfaction and sales in the fast food industry in the USA using longitudinal data from multiple firms, found that there was an insignificant relationship between overall satisfaction and sales – both at time t . The research did however support the hypothesis that there is a positive relationship between customer satisfaction in previous time periods (i.e. time $t - x$, where $x = 1, 2, 3$ etc) and current sales (i.e. time t).

Looking within a South African context, a review of the literature revealed that in 2005, Le Roux explored the correlation between customer satisfaction and profitability within the context of the South African vehicle industry. More specifically, the research used satisfaction data obtained through telephonic interviews with customers of the Ford Motor Group. The research findings *“strongly supports the hypothesis of the direct correlation between profit and customer satisfaction, until a point where profiteering becomes evident, upon which customer satisfaction deteriorates”* (Le Roux, 2005: 91). Another author, Terblanche (2006) explored the concept of customer satisfaction and used the American Customer Satisfaction Index (ACSI) to explain and predict customer retention in the South African motor vehicle industry.

The works of authors including Ittner and Larker (1998), Silverstro (1997), Prichard and Silvertro (2005), Bernhardt *et al* (2000) and Le Roux (2005) have addressed the topic of customer satisfaction and its relationship to revenue within sectors such as telecommunications, fast food and the motor industry, the current research is set to focus specifically on the banking industry. This is similar to the works done by Rust and Zahorik (1993) and Winkler and Schwaiger (2004), with the exception being that the research will focus specifically on a single retail bank within South Africa, as opposed to an industry wide study. The current study thus closely resembles the work of Yu (2007) in Taiwan, however the focus of this study will be on the commercial banking customers of a South African bank.

2.5.5. Operationalizing Customer Satisfaction

It is notable that different authors have conceptualized and operationalised the term 'customer satisfaction' in various different ways in previous research. While some authors make use of multiple dimensions to derive overall satisfaction (see Rust and Zahorik, 1993 and Ittner and Larker, 1998) others use a one dimensional customer satisfaction score to arrive at their findings (see Winkler and Schwaiger, 2004; Westbrook, 1980; Swan and Martin, 1981; Fornell, 2004; Anderson *et al*, 1994 and Bernhardt *et al*, 2000; Williams and Naumann, 2011; Peterson and Wilson, 1992).

In conceptualizing customer satisfaction, Griffin and Hauser, 1992 note that *"determining which service attributes most determine customer satisfaction commonly involves focus groups and one-on-one interviews"*. Using this approach, Rust and Zahorik (1993) came up with a list of nine attributes which they used to define customers' *"ongoing relationship with their 'primary' bank"*. These included:

- The friendliness of the bank
- How well the managers know me
- How well the bank listens to my needs
- How many money machines the bank has around town
- How many tellers are available at busy times
- The cost of checking
- How close the bank is to my home
- How close the bank is to my place of employment
- How convenient the bank is to my route to work

A random sample of 100 customers were asked to rate their satisfaction with the bank in terms of the above attributes on a 1 to 5 scale, with 1 labelled as "very dissatisfied" and 5 labelled as "very satisfied."

As alluded to earlier, the 1998 study by Ittner and Larker which researched whether customer satisfaction measures were leading indicators of accounting performance by looking at a sample of 2,491 business customers of a telecommunications firm

also made use of a multi-dimensional customer satisfaction construct. These authors used three questions which were then weighted using Partial Least Squares (PLS) in such a way as to ensure that the index had the maximum correlation with the expected economic consequences. The three questions included overall satisfaction with the service (from 1 = not satisfied at all to 10 = extremely satisfied), the extent to which the service had fallen short or exceeded customer expectations (from 1 = has not met expectations to 10 = exceeded expectations), and how well the service compared with the ideal service (from 1 = not at all ideal to 10 = absolutely ideal).

On the other hand, there are also some researchers who have used a one-dimensional characterization of customer satisfaction in assessing the link between customer satisfaction and financial performance (Winkler and Schwaiger, 2004; Westbrook, 1980; Swan and Martin, 1981; Fornell, 2004; Anderson *et al*, 1994 and Bernhardt *et al*, 2000; Williams and Naumann, 2011; Peterson and Wilson, 1992).

For example, Winkler and Schwaiger (2004) used a one-dimensional characterization of customer satisfaction in their 2004 study which incorporated around 60,000 interviews conducted over a period of 15 years. In these interviews, customers were asked to evaluate their overall satisfaction with their bank on a seven-point scale which was then transformed to a 0 to 100 scale. For this study, average overall satisfaction was defined as *“the mean per bank of all satisfaction evaluations resulting from the survey of the bank’s clients”* (Winkler and Schwaiger, 2004:15).

Williams and Naumann (2011) in their study of the impact of customer satisfaction on revenue within a Fortune 100 company in the USA over a period of 5 years, similarly make use of a one-dimensional construct to assess customer satisfaction. Customer satisfaction was assessed on a five-point scale with response categories ranging from very satisfied to very dissatisfied. *“A “top-two” score was calculated as the proportion of responses in the satisfied and very satisfied categories”* (Williams and Naumann, 2011:23). These researchers sighted the need to keep the questionnaire

short and improve response rates as the reason for this approach. *“While the use of single-item rather than multi-item scales can be criticized due to the obvious compromise on construct validity, the simplified scales were considered appropriate by the researchers because they were consistently used over a long period of time, were easy to understand, and were easy to utilize”* (Williams and Naumann, 2011:24).

The use of a one-dimensional indicator of customer satisfaction has however attracted some criticism, especially by those academics who focus on the components and dimensions of customer satisfaction. While Winkler and Swaiger (2004:15) acknowledge that *“one-dimensional data will almost certainly be of limited use for diagnostic means”*, these authors also contend that *“a balanced view of multi- and single dimensional definitions however has to take the intended use of the satisfaction data into account.”* Winkler and Schwaiger (2004) thus consider the use of a one-dimensional indicator of customer satisfaction appropriate for the purposes of their paper since several researchers (see Anderson *et al*, 1994; Bernhardt *et al*, 2000 and Peterson and Wilson, 1992) have made use of a similar characterization of customer satisfaction when examining the link between satisfaction and profits.

For the purposes of this study, a single customer satisfaction score was constructed by taking the arithmetic mean of the ratings of six attribute statements which relate to a customer's bank representative or more formally termed 'transactional banker' (TB).

These included:

- 1) **Overall satisfaction** with your transactional banker
- 2) Degree of satisfaction that your transactional banker **understands your company's banking needs**
- 3) Degree of satisfaction that your transactional banker is **knowledgeable of Bank X's products and solutions**
- 4) Degree of satisfaction that your transactional banker **provides relevant advice that adds value to your business**
- 5) Degree of satisfaction that your transactional banker **is available when you need him or her.**
- 6) Degree of satisfaction that your transactional banker **responds to requests promptly.**

Customers were asked to provide an indication of their level of satisfaction with the performance of their transactional banker with regard to the above attributes on a scale of 1 to 10, where 1 is completely dissatisfied and 10 = completely satisfied. The arithmetic mean of these 6 scores provides a single aggregated indicator of customer satisfaction with TB.

It is instructive to note that the use of these attributes in measuring customer satisfaction does not follow specific literature or precedents set by other authors but rather were chosen specifically by the banking organization as attributes of interest and importance in their particular relationship management model. The appropriateness and validity of these dimensions in defining customer satisfaction is not mainly within the scope of this study, but should be addressed better by future researchers who wish to add more empiricism to the research.

2.6. Conclusion

In an era where demands on limited resources are increasing, it is necessary now more than ever for management to demonstrate the financial advantages of marketing expenditure such as that spent on customer satisfaction research at a firm level.

While it is recognized that focusing on customer satisfaction has many non-financial benefits including customer retention, loyalty and repeat purchasing amongst others, it is often the financial benefits that provide direct justification for the expenditure on customer satisfaction initiatives. This paper addresses this imperative by investigating the relationship between customer satisfaction and revenue within the context of the corporate division of a single South African Bank.

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Section 3: Description of Research Methodology

3.1. Introduction

The format of this paper is that of an academic paper. According to Truscott and Mitchell (1998:194), there are several different types of academic papers; the conference paper; a book chapter; an occasional paper and an article for an academic journal. The format of this paper follows that of an article for an academic journal. Truscott and Mitchell (1998:194) also note that *“the standards are most rigorous”* for this type of academic paper and that it is *“important to balance scientific credibility against coverage.”*

3.2. Research Goals

The primary goal of the research was to explore the relationship between total customer satisfaction with transactional bankers as perceived by clients, and revenue generated from such clients within the corporate banking sector of a single South African bank. To pursue this goal, the following hypotheses were explored using secondary data from three waves of the study conducted in September 2010, March 2011 and September 2011:

H1: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman credit revenue at the account level.

H2: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly cashman overdraft revenue at the account level.

H3: There is a positive relationship between total customer satisfaction with the transactional banker and average monthly total cashman revenue at the account level.

3.3. Methodology

Guba (1990:18) suggests that research paradigms are characterized by their ontology (i.e. *“what is the nature of the knowable”*), epistemology (i.e. *“what is the relationship between the knower (inquirer) and the known (or knowable)?”*) and finally, their methodology (i.e. *“how should the inquirer go about finding out knowledge”*).

Ontologically, the research took a view of critical realism. *“The essence of this position is that, although a real world driven by real natural causes exists, it is impossible for humans truly to perceive it with their imperfect sensory and intellectual mechanisms”* (Cook and Campbell, 1979: 29). Thus, it is necessary for a certain degree of criticism to be present to account for human infirmities. While there is never complete certainty over whether the truth has been discovered, it is accepted that this reality does exist.

Epistemologically, the research took the modified dualist / objectivist view in trying to ascertain whether the findings conform to the findings of other authors (Guba and Lincoln, 1994: 110).

Finally, the research adopted a post-positivist paradigm and made use of quantitative, statistical analysis techniques to prove / disprove the hypotheses stated earlier.

No primary data was collected specifically for the purposes of this study, but rather the study made use of secondary data which was collected by the institution under study at three intervals during September 2010, March 2011 and September 2011. The institution made use of the services of an independent market research firm to collect data, which it is believed, adds to the objectivity and accuracy of the data.

3.4. Population

The banking firm on which this study is based offers a diverse range of products and services to a broad customer base spanning the smallest mass market consumer through to some of the country's largest corporate organisations.

While the head office of the corporate division is located in Johannesburg, South Africa, the organisation has an international reach with offices located in some 30 countries worldwide. Bank branches are found in over 600 towns and cities across the South Africa.

Corporate clients – which are the key participants in the study - are typically defined by a turnover exceeding R600 million per annum and span the full spectrum of industries. Given their size, many are national or multi-national organisations with head offices in the country's major cities including Johannesburg, Pretoria, Cape Town and Durban. Services offered to corporate institutions include amongst others investment banking, advisory and finance solutions, trading and risk management solutions as well as a range of transactional services primarily across Africa.

In South Africa, corporate clients are serviced by a team of individuals known as transactional bankers (TB's). Transactional bankers are responsible for dealing with clients on issues pertaining to their day to day transactional account for paying and collecting funds – an account called the 'cash management' account. Interactions with transactional bankers, who are based in the country's major cities including Johannesburg, Cape Town, Durban and Pretoria take place either in person, telephonically or electronically as dictated or required by the client.

Since 2009, the corporate division of the above banking institution has made customer satisfaction, specifically as relating to the transactional bankers, a key area of focus, spending considerable resources on trying to identify, improve and maintain areas of customer satisfaction. This has resulted in an increase in total customer satisfaction within the division as well as increased customer satisfaction with transactional bankers.

It is this specific strategic focus that made the case for the choice of this organization as the subject of this study. While many consequences of customer satisfaction have been identified in literature, it is the purpose of this study to explore whether a positive relationship between customer satisfaction with transactional bankers and the revenue generated from customers through the cash management account is present.

3.5. Data Collection and Sampling

The research goals were addressed via a survey research method.

The study used preexisting survey data and thus, no field data was collected specifically for the purposes of this research paper. The banking institution in question has been collecting quantitative data on the level of customer's satisfaction with their transactional bankers, using an independent market research house on a bi-annual basis since September 2010, when the first study was conducted. The secondary data used was collected from 3 surveys during September 2010, March 2011 and finally, September 2011.

During the collection of the data, individuals who held the primary relationship with the banking division were identified and interviewed telephonically. These individuals were deemed to be in an acceptable position to be surveyed as they were senior financial decision makers of their organization's (i.e. had the ability to influence a decision to change banks) and they held the primary relationship with the transactional banker being assessed. Telephonic interviews were chosen as they are less time consuming i.e. took only 10 minutes of a respondent's time; and thus maximized participation rates. This is similar to the approach taken by Williams and Naumann (2011).

A questionnaire was used to gather the TB ratings. The questionnaire was custom designed to meet the needs and managerial objectives of the banking division under study.

The questionnaire included amongst others, questions which explored the respondent's perceived satisfaction with the overall service delivery from their transactional banker, using a scale from 1 to 10, where 1 = completely dissatisfied and 10 = completely satisfied. In addition, using the same scale, the questionnaire explored the respondents perceived level of satisfaction with each of following five attributes relating to the transactional bankers namely:

- Transactional bankers understanding of the company's banking needs
- Transactional bankers knowledge of 'Bank X's' products and solutions
- The provision of relevant advice by the transactional bankers that adds value to the business
- The availability of the transactional banker when he / she is needed
- The degree to which the transactional bankers respond promptly to requests

The bi-annual (every six months) surveys conducted by the independent market research house achieved sample sizes of 273 (September 2010), 259 (March 2011) and 310 (September 2011) through a method of stratified sampling. Customers were stratified according to the transactional banker who was responsible for their account. Following this approach, within each strata a random sample of 10 – 15 participants were included in the study by the independent research house for each of the 30 transactional bankers.

Data pertaining to the revenue generated through the cash management account were sourced from internal company records. The revenue data sourced included the following sets of figures:

Cash Management Credit Revenue: Revenue at the account level generated from the positive balances in a client's cash management account. Such revenue is a function of the size of the balance held in this particular account and is recorded as the average balance over each month.

Cash Management Overdraft Revenue: Revenue at the account level generated from the overdrawn balances in a client's cash management account. Such revenue is a function of the size of the overdraft balance in this particular account and is recorded as the average balance over each month.

Total Cashman Revenue: Total revenue was obtained by summing the cash management credit revenue and the overdraft revenue each month.

It is noted that the revenue figures contained in the data pertain only to a single account type (cash management account) held with a division within the bank and not to the clients entire portfolio with the bank.

3.6. Data Analysis

The analysis of the data incorporated three basic analytical techniques, these being Cronbach's alpha, Pearson's Correlation and Ordinary Least Squares Regression.

First, Cronbach's alpha was calculated to measure the internal reliability of the summated attribute rating scales for customer satisfaction with TB.

Following this, the pairs of variables were subjected to Pearson's correlation analysis for each of the three waves under study. The purpose of the analysis was to assess whether there exists a positive correlation between total customer satisfaction with TB and a) credit revenue, b) overdraft revenue and c) total revenue. The first, correlation analysis was done between total customer satisfaction with TB, and average monthly cashman credit revenue. Another correlation analysis was conducted between total customer satisfaction with TB and average monthly overdraft revenue and the final correlation analysis was conducted between total customer satisfaction with TB and average monthly total cashman revenue.

Regression analysis is a widely accepted tool for analysing the relationship amongst variables and, whilst it does not reveal cause and effect relationships, it does indicate the extent to which variables are associated with one another (Schief, 2009). The data was subjected to ordinary least squares regression in order to determine the strength of the relationship between customer satisfaction with TB (in this case the independent variable) and revenue (in this case the response variable). The regression analysis was performed for all three waves of the study with, a) credit revenue, b) overdraft revenue and c) total revenue as the response variables in turn.

Both average monthly credit revenue and average monthly overdraft revenue (and thus total average monthly revenue) data for the period September 2010 to January 2012 was not available in all cases. Furthermore, some participants may not have had either a credit and / or an overdraft balance in their cash management account

which would result in the account revenue being nil for any given month. For this reason, when conducting further analysis, n-values were largely variable.

While data was initially recorded in Microsoft Excel 2010, analysis was conducted using IBM SPSS Statistics 19.

3.7. Ethical Considerations

The researcher is a market research practitioner and a member of the independent research house tasked with conducting and analyzing the customer satisfaction data on behalf of the bank in question on a biannual basis. Thus, a negative outcome (i.e. that there is no evidence to support the notion that a positive relationship exists between customer satisfaction with the TB and revenue generation), may deter the bank in question from conducting future customer satisfaction research.

In order to avoid unethical practices or behavior, the researcher adhered to the European Society for Opinion and Marketing Research's (ESOMAR) guidelines on the mutual rights and responsibilities of researchers and clients. These guidelines specify, inter alia, that *"researchers shall ensure that market research projects are designed, carried out, reported and documented accurately, transparently and objectively"* (Esomar, 2008:6). The Esomar Code of Conduct further states that *"researchers shall inform clients if the work to be carried out for them is to be combined or syndicated in the same project with work for other clients, without disclosing the identity of such clients without their permission"* (Esomar, 2008:10).

In the case of this study, explicit written permission was obtained from the bank in question to utilize the data anonymously for the purpose of this study. It is purely on ethical grounds that every effort has been undertaken not to disclose any information that may reveal the identity of the bank under study.

3.8. Study Limitations

The study was hampered by the absence of revenue figures, particularly overdraft revenue, in some cases which lead to small n-values (less than 30) when conducting the correlation and regression analyses.

Further to this, the study only focused on a single banking account held with the bank and increases and decreases in revenue based on the balances held within that single account. Since one of the purported consequences of improved customer satisfaction is the purchase of additional products, the current design of the study does not take into account the take up of additional accounts or banking products with the bank as a whole. Thus, an increase in revenue within another division, and thus increased revenue for the bank as a whole may be masked. Similarly, the scope of the study does not extend to recommendations to others and hence growth of divisional or bank revenue due to the addition of new customers to the bank.

It is recognized that the fact that the study lacks primary data collection and relies purely on secondary / existing data represents a limitation. In addition, the data collected dates as far back as September 2010, and one could argue that the findings of the research may no longer be relevant. Nonetheless, the study adds value in the understanding of the relationship between customer satisfaction and revenue, and also (a) adds a voice of caution against the universal application of models that hypothesize the existence of such a positive relationship and (b) draws scholarly attention to the need for more rigor to address the identified limitations.

3.9. References

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