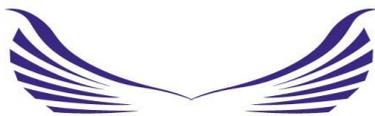




UNIVERSITEIT VAN PRETORIA  
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GORDON INSTITUTE  
OF BUSINESS SCIENCE

University of Pretoria

**AN EMPIRICAL TEST OF THE SERVICE-PROFIT CHAIN AT THE  
BOTTOM OF THE PYRAMID**

**BONGANI MAGEBA**

A research project submitted on the 14 November 2007 to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

Johannesburg, November 2007

## **Abstract**

The research project investigated the applicability of the Service-Profit Chain model in the context where there are bottom of the pyramid customers who service bottom of the pyramid consumers in a middle income country.

All businesses are concerned about creating value for themselves. In the past a lot of initiatives have focused on internal restructuring measures as well driving one of the most valuable assets they have their brands. However, there is now a growing realisation by businesses driven by a number of factors that a the management of customer relations is one of the most effective tools to manage and increase profitability.

In view of the increasing emphasis that is being placed on the role of customers in creating value for businesses the service-profit chain is an appropriate response to how businesses can go about managing customer profitability.

The research project was done using a quantitative research method with customers of one of the leading softdrinks beverage companies in the country. Prior to this a thorough literature review was conducted which showed the relevance of the service-profit chain model in managing customer profitability.

The main finding from the research is that the service-profit chain does not apply to the context described above and in the study. This is mainly because there was no relationship found between customer loyalty and customer profitability. However, the last chapter proposes a model to help with establishing this relationship.



## **Declaration**

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University.

Bongani Mageba

.....  
14 November 2007



## Acknowledgements

The past two years have been a wonderful journey for me. This decision to embark on an MBA programme through the Gordon Institute of Business Science has been one of the most fundamental decision that I've taken regarding my personal growth and career growth.

Now that I've come thus far I would like to thank the following people for their contribution to my success:

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## Glossary

### Definitions of terms and acronyms

- **BOP** Bottom of the Pyramid
- **CLV** Customer Lifetime Value
- **MNCs** Multi-National Companies
- **RM** Relationship Marketing
- **Serv-Prof** Service-Profit Chain
- **Serv-Qual** Service Quality
- **TARP** Technical Assistance American Programme
- **KS** Kolmogorov-Smirnoff
- **ANOVA** Analysis of Variance
- **DC** Distribution Center
- **KVI** Known Value Item
- **IMP** Industrial Marketing and Purchasing Group
- **B2B** Business to business



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## 1 CHAPTER 1 – INTRODUCTION TO THE RESEARCH PROBLEM

This chapter will introduce the research problem and give motivation for the research. The theory of service-profit chain (also referred to as the relationship profitability model) will be introduced and explained briefly to set the context for the research. Secondly, the research aim will be outlined followed by the research objectives. The chapter will conclude by outlining the research scope.

### 1.1 Introduction to the Research Problem

The essence of the research problem relates to whether suppliers or manufacturers of products can have profitable relationships with their customers, other businesses, who are at the bottom of the customer pyramid and serve bottom of the economic pyramid consumers. The concern with customer profitability was well captured by Woodruff (1997, p139) when he wrote: "The increasing emphasis on customers, caused by global competition and slow-growth economies and industries has led many organisations to move away from internally focused initiatives like reengineering and restructuring towards an outward orientation and emphasis on superior customer value".

**Comment [K1]:** Why a capital?

**Comment [K2]:** Use you own words where possible. Quotes longer than 40 words must be indented. Use their words only when you cannot phrae it better yourself

It is important at this stage and for the purposes of this research to clarify the terms *customers* and consumers. They are often used interchangeably both in scholarly writings and in the popular press (Parasuraman and Grewal, 2000). Webster

(2000) provides one of the most useful clarifications when he says we must be careful not to confuse the two. The clarification he provides is, “A *consumer* is a person who uses or consumes the product. A *customer* is an individual or business entity that buys the product, meaning that they acquire it (legally, and probably but not necessarily, physically) and pay for it” (Webster, 2000, p18). Webster (2000) goes on to say that a major part of customers are intermediaries who buy for resale to their customers for consumption.

The customer is central to the delivery of value in a business. If that is so the question is, how can businesses manage this process in order to have profitable relationships with their customers? The theory of the service-profit chain suggests that there are four key linkages. The essence of the service profit chain theory (Heskett, Jones, Loveman, Sasser, Schlesinger, 1994; 2003 and Storbacka, Strandvik, Gronroos, 1994) is:

- (a) if a supplier or manufacturer of products or supplier of services has satisfied employees they will deliver quality service which meets their customers' needs,
- (b) if high quality service is experienced by customers they will have a feeling of being satisfied,
- (c) if they are satisfied they will be loyal and this will be evident in them talking positively about the supplier but more importantly concentrating their patronage or purchases with the supplier,

- (d) this emotional and practical demonstration of loyalty is likely to result in profitability to that particular supplier business.

It is, however, a well established principle in customer relationship management literature (Kaplan and Narayanan, 2001; Ofek, 2002) that the process of acquiring, retaining and growing customers is cost generative and needs to be weighed against the revenue generated from the particular customer. The cost of attracting new customers was first documented in **Technical Assistance Research Programme (TARP)** studies and it was concluded that it costs five times more to recruit new customers than to keep existing ones (Kotler, 1999). The costs in many cases cannot be recovered (Kaplan & Narayanan, 2001; Ofek, 2002). It stands to reason therefore that supplier businesses should first and foremost aim to cultivate profitable relationships with existing customers and if they have to acquire new customers they should be extremely sensitive to the profits that are likely to be generated over the lifetime of the relationship with the customers by taking into account cost to serve.

**Comment [K3]:** Write out acronym on first reference

The key research problem is, would the service-profit chain constructs explained above equally apply to all sets of customers? In particular, would they apply to customers who in terms of the customer segmentation model would be at the bottom of the customer pyramid, operating largely in a market with consumers at the bottom of the economic pyramid in a middle income country?

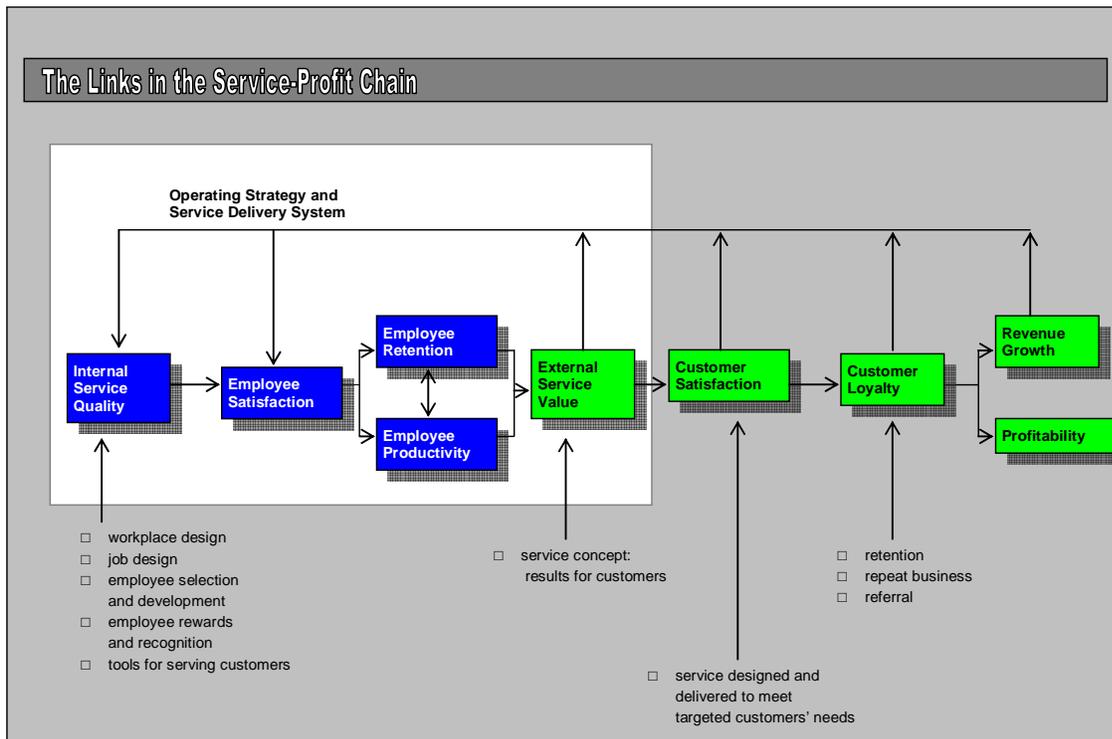
## 1.2 Research Aim

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The aim of the research is to test the basic assumptions embedded in the service-profit chain model that improved service quality leads to increased satisfaction, which in turn makes customers more loyal, and that you get more profit from loyal customers than from those who don't care where they get the product or service from. This empirical test will be done using a quantitative study method and it will be focused on customers at the bottom of the pyramid and servicing consumers who are at the bottom of the economic pyramid. The model that will be used for the test is shown in figure 1.1 below

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**Figure 1.1- Service-Profit Chain - (Heskett et al 1994, p166)**



### 1.3 Research Objectives

The outcome of this research should provide managers and practitioners alike with an understanding of what happens to customer profitability when service quality is improved or is perceived to be good. Furthermore the outcome should assist managers and practitioners know which lever to pull to increase customer loyalty for profitability within the bottom of the pyramid customers serving bottom of the pyramid consumers. This is essentially the crux of the matter and a key area of difference for this study in that no evidence could be found in existing literature of a similar study with the focus on bottom of the pyramid customers and consumers. The terms bottom of the economic pyramid is explained later on in Chapter Two. Finally, the other benefit of this research is that it should assist managers and practitioners with allocation of **resources** within this segment.

**Comment [K6]:** What is new here? BOP not mentioned or stressed

#### 1.4 Research Scope

The study is not aimed at testing whether causal links between the four constructs mentioned above exists. Instead, the study will take for granted that the attributes are linked in a cause and effect relationship (Zeithmal, Lemon and Rust, 2001). Secondly, the study will not encompass a test on the internal employee satisfaction levels. The empirical test will only measure the **customer** satisfaction, customer loyalty and customer profitability attributes. The customer in this instance is the middle man who owns a business which sells ABI products to consumers. The motivation for this is that there are essentially two authoritative customer

**Comment [K7]:** Explain customer as retailer



profitability models (Heskett *et al*, 1994, 2003 and Storbacka *et al*, 1994) and areas of commonality between them exist within the last three constructs or attributes mentioned above. Secondly, due to time constraints there is not sufficient time to delve into an organisational effectiveness test to test employee satisfaction as a predictor of service quality. (

Comment [K8]: Why would this be needed?

The empirical test will be conducted with a narrowly defined customer base and segment within a defined industry and context. The customer, who is the unit of analysis, is a customer to ABI, the softdrinks division of South African Breweries, who is located in Alexandra township within the cosmopolitan area of Sandton in Johannesburg, South Africa.

## 2 CHAPTER 2 – LITERATURE REVIEW

This chapter captures the literature review undertaken as part of the research project. The outline of the literature review is as follows: the theory behind the service-profit chain model will be discussed, followed by a discussion on the concept of segmentation and in particular segmentation of bottom of the pyramid customers, and bottom of the economic pyramid consumers. Finally, the chapter will conclude with the link between the service-profit chain model and the bottom of pyramid segmentation concept for both customers and consumers in South Africa.

## **2.1 The Service-Profit Chain**

This section will cover the theory supporting the service-profit chain model. The origins of the thinking behind the model will be explained. Furthermore, the individual attributes or constructs which will form the basis of the empirical test will be discussed.

The emphasis on building customer relationships with the right set of customers has been cause for concern and research among academics and practitioners with regard to the drivers of customer profitability (Heskett, 1986; Heskett *et al*, 1994; Storbacka *et al*, 1994; Hallowell, 1996; Heskett *et al* 2003). The essence is, if business is about creation and delivery of value to the various stakeholders in a business and the customer is at the heart of it, what levers could business



managers pull to ensure profitability? Hence the service-profit chain model as enunciated by Heskett *et al* (1994; 2003) and Storbacka *et al* (1994).

Comment [K9]: Whose?

The service-profit chain is described as the new customer economics of relationship marketing (Heskett *et al*, 1994; 2003). The service-profit chain establishes relationships between profitability, customer loyalty, and employee satisfaction, loyalty and productivity (Heskett *et al*, 1994; 2003). These (Heskett *et al*,) authors go on to state that, “the links in the chain (which should be regarded as propositions) are as follows: Profit and growth are stimulated primarily by customer loyalty. Loyalty is a direct result of customer satisfaction. Satisfaction is largely influenced by the value of services provided to customers (Heskett *et al*, 1994, p165). Up to this point there is commonality in the service-profit chain model by

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Heskett *et al* and relationship profitability model by Storbacka *et al*. The key area of difference is Heskett *et al* see employee satisfaction as one of the key drivers of value. The link with employee satisfaction is expressed as follows, “Employee satisfaction, in turn, results primarily from high-quality support services and policies that enable employees to deliver results to customers” (Heskett *et al*, 1994, p165).

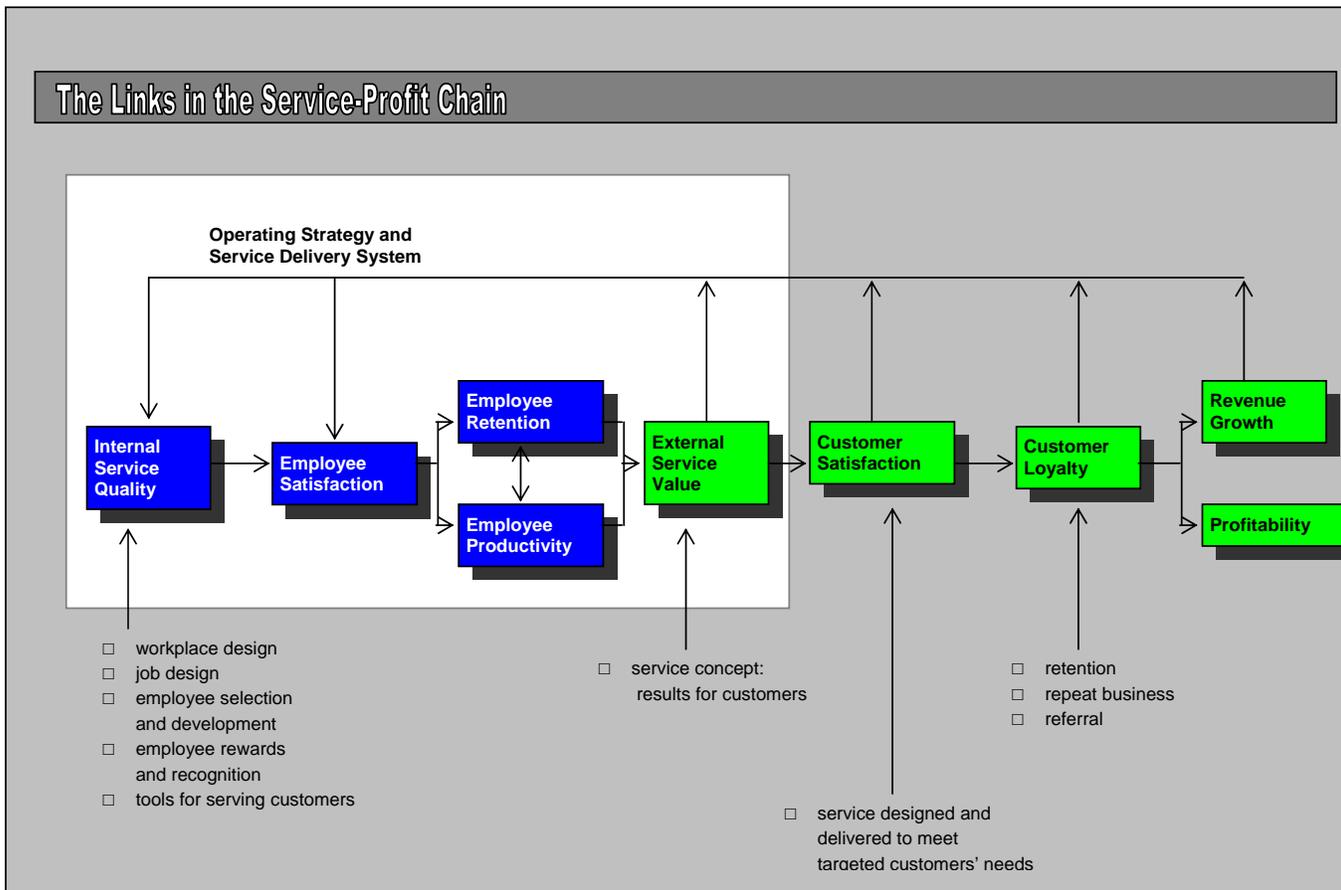
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This last aspect on employee satisfaction, although part of the model by Heskett *et al* (1994; 2003) will, however, not form part of the empirical test as stated above in the research scope.

Heskett *et al* (2003), have since developed their argument further and now refer to this model as the value-profit chain model. The new development is that they

answer many questions raised in previous studies which had been unanswered. For instance, they answer questions such as, 'Can the service-profit chain work in greenfield start-ups and does it work for both manufacturing and service companies?' Secondly and more fundamentally, they place the attainment of value at the core of the chain. This is value for all stakeholders, employees, customers, shareholders, and investors. The depiction of the service profit chain (Heskett *et al*, 1994, 2003) and its links are shown below.

**Figure 2.1- Service-Profit Chain - (Heskett *et al* 1994, p166)**



The links shown in figure 2.1 above depict an integrated system of managing and measuring the bottom line financial performance at an individual customer level or for a group of customers irrespective of whether the product is tangible or intangible or whether it is a business to consumer relationship or business to business relationship. It is essentially generic (Johnson and Gustafsson, 2000). The part of the figure highlighted in blue is the operating strategy and service delivery system which is largely about internal business initiatives. The basic assumption is that through a focus on employee satisfaction, employee retention and employee productivity a business will greatly enhance its ability to deliver excellent external service value to customers (Heskett *et al*, 1994 ; 2003). This directly focuses practitioners and business leaders alike on the first levers to push and pull in order to deliver value to the customer (Johnson and Gustafsson, 2000).

It needs to be noted that this model does not focus on the quality of the product or service being offered. Another element of improvement for internal quality could encompass an improvement to various production processes related to the product or service, for example, improvement of actual manufacturing processes to physical attributes of a physical product or delivery mechanism of an intangible product (Johnson and Gustafsson, 2000). An important point to be made here is that internal service quality and the improvement thereof has serious implications on costs and revenues of a business. Hence the need for businesses to

understand the input costs thoroughly in order to arrive at an acceptable level of profitability over the duration of the relationship with the customer.

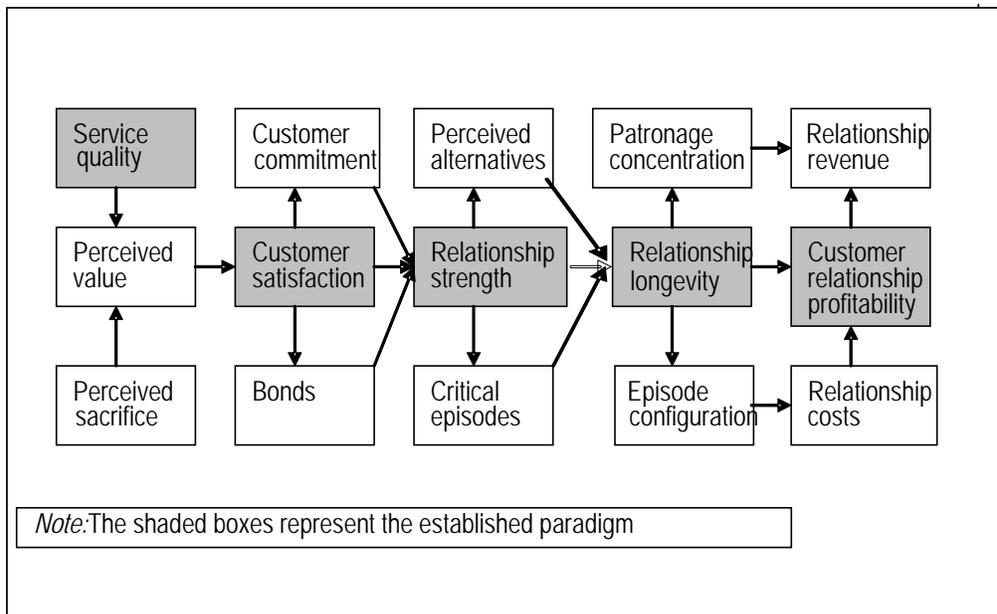
The resulting effect of a well structured and managed internal service quality programme should result in positive experiences for the customer. If the programme is delivered consistently and reliably over a period of time it should result in customer satisfaction, followed by customer loyalty and the outcome will be customer profitability (Heskett *et al*, 1994, 2003).

The section highlighted in green forms the focus of the empirical test. It outlines the four key linkages necessary for the positive outcome of the service-profit chain. Stobarcka *et al* (1994) in an article written at approximately the same time as Heskett *et al* (1994) provide yet another variation to the service-profit chain theory by emphasising different aspects of it. They point to a gap in previous literature and comment that, “there is a lack of studies investigating customer relationship economics, i.e., the link between perception measures (service quality, satisfaction, intentions) and action measures (purchase loyalty, purchase volume, word-of-mouth behaviour and long term customer relationship profitability)” (Stobarcka *et al*, 1994, p21). This perceived weakness they believed led to the prevailing satisfaction paradigm which was based on the assumption that customer actions are based on their perception of quality and satisfaction, that they are free to act and choose, and that a loyal customer is more profitable (Stobarcka *et al*, 1994).

**Comment [K12]:** You must therefore include profitability through internal ABI data

The propositions they put forward are similar to those stated by Heskett *et al* (1994), however they put into question the assumption that, “by improving the quality of the provider’s service, customers’ satisfaction is improved.” Furthermore, they question whether a satisfied customer creates a strong relationship with the provider and this leads to relationship longevity (or customer retention – customer loyalty). Finally, they question whether, “retention again generates steady revenues and by adding the revenues over time customer relationship profitability is improved” (Storbacka *et al*, 1994, p23). Their service-profit chain model or what they also aptly call the relationship profitability model is depicted below, refer to figure 2.2.

**Figure 2.2 – Relationship profitability model - (Storbacka *et al* 1994, p23)**



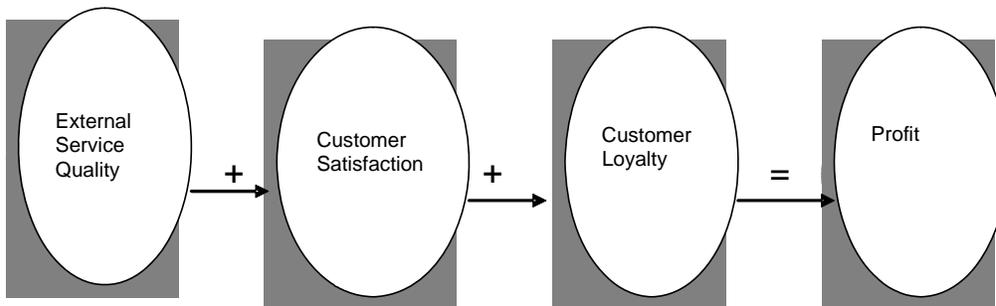
In essence there is no significant difference in the attributes or flow between the two models (figures 2.1 & 2.2). The major difference in thinking worth mentioning here is that Heskett *et al* (1994; 2003) emphasise the role of employees as critical in the chain. They believe they are so critical that, they argue, if you do not have the right employees service will suffer. They describe it as, “today’s employee satisfaction, loyalty, and commitment strongly influences tomorrow’s customer satisfaction, loyalty, and commitment and ultimately the organisation’s profit and growth” (Heskett *et al*, 2003, p65).

However, Storbacka *et al* (1994) provide valuable insight by pointing out that there are a number of intervening factors and these are represented by the unshaded boxes in the figure 2.2 above. For example, with regards to the attribute ‘relationship strength,’ they point out that whether the relationship is strong or not is a function of perceived alternatives available to the customer and critical episodes over a period of time. This questions the simplicity of how the service profit chain is applied and they point out that this simplification could create practical problems in many industries. This is if the model is applied without much thought (Storbacka *et al*, 1994).

From the two models by Heskett *et al*, (1994, 2003) and Storbacka *et al*, (1994) the following can be deduced. Profit and growth for the supplier in a business to business relationship is driven by satisfied employees who then offer quality service to the customer and this results in the customer having feelings of

satisfaction and demonstrating those feelings through increased purchase behaviour, thus resulting in positive financial reward for the supplier. The reward will be positive if the relationship revenue outweighs the relationship cost. See below a simplified interpretation of the two models – figure 2.3.

**Figure 2.3 – Service-profitability summary model – (Adapted from Johnson & Gustaffson 2000, p101)**



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The attributes do not stand on their own. They form a chain of cause and effect, building on each other so that they cannot be treated separately (Johnson and Gustaffson, 2000). The levers most available to business managers are the inputs to achieving external service quality or value for customers. The inputs generate activity which causes cost to serve costs to escalate. If a relationship is to be profitable, it must be possible to recoup the costs over the life of the relationship between the supplier business and the customer. The next sections will elaborate on the links and how they add up to profitability. Each link will be discussed individually.

### **2.1.1 The link between service quality and customer satisfaction**

Service quality is the key utility variable that is used to attract new customers, as well as to increase usage rates of existing customers (Allen and Rao, 2000). In the context of this study it forms the foundation of the link from service quality to profitability. However, much of the literature on service-quality assessment is based on research involving end consumers rather than business to business relationships and customers even though this is starting to change rapidly (Parasuraman, 2000). In the absence of direct secondary evidence directly related to business to business markets it is still important to review current literature.

Early writings by Parasuraman, Berry and Zeithmal (1985) suggest that service quality stems from a comparison of what customers feel a seller should offer with the seller's actual service performance (Parasuraman, 1998). The notion that service quality is a function of the expectations-performance gap was further reinforced by a broad-based exploratory study conducted by Parasuraman *et al* (1985). This attempt by Parasuraman *et al*, Allen and Rao (2000, p1) add, "represents one of the first attempts to operationalise satisfaction in a theoretical context". Despite there being a very wide view on what comprises service-quality, there seems to be commonality on the fact that customers assess quality not just based on the outcome, but also on the process associated with it (Parasuraman *et al*, 1985; Allen & Rao, 2000).

Storbacka *et al* (1994, p24) add a different perspective and opine that, “service quality and satisfaction can be experienced both at an episode and relationship level”. Using the relationship profitability model which they put forward, they believe that service quality is much more dynamic than the current assumptions reflected in much of service management literature (see figure 2.2, p12). They believe that there could be a number of intervening factors, which in this case are perceived value (i.e. service quality compared with perceived sacrifice) against perceived sacrifice (i.e. price, distance) which ultimately impacts the feeling or outcome of service quality.

These intervening factors must be understood to arrive at a conclusion of service quality being present. This is essentially what Storbacka *et al* (1994) advocate throughout their model. It will therefore be important that the data collection tool that is used to measure this element takes the warnings sounded by Storbacka *et al* into account and builds them into the outcome of the assessment.

It is unlikely that there is a business which does not claim to be focus on service quality (Allen & Rao, 2000). On the other hand a relentless and directionless pursuit of service quality would not serve business any good (Allen & Rao, 2000). The key question that businesses should ask themselves is, if service quality is an important lever to pull to achieve profitability, what choices should be made in order to positively effect satisfaction and loyalty?

### 2.1.2 The link between customer satisfaction and customer loyalty

Many business managers refer openly to the relationship between a satisfied customer and a loyal one. The referral to this link although not empirically understood by them, seems to come from intuition (Storbacka *et al*, 1994). Most businesses stress the importance of satisfying their customers so that they will be loyal and concentrate their purchases with the business over time.

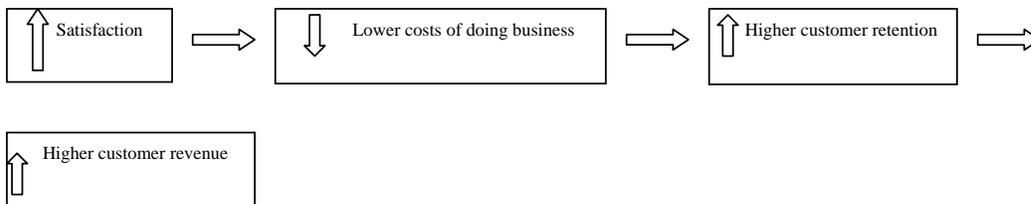
The literature on this link seems to reveal that a statistically-driven examination of these links has been initiated by Hallowell (1996), who demonstrated the relationship of customer satisfaction to profitability among hospitals, and Rust and Zahorik (1991), who examined the relationship of customer satisfaction to customer retention in retail banking.

Customer satisfaction has been defined by Storbacka *et al* (1994, p25) as, “customers’ cognitive and affective evaluation based on the personal experiences across all service episodes within the relationship”. It is about what the customer has to give in order to get something. Like service quality it has a direct and indirect effect on costs and revenue (Johnson and Gustaffson, 2000). It contributes to the overall cause and effect relationship by having a direct impact on loyalty and retention. This is because a satisfied customer is less likely to demand extra service or question pricing (Johnson and Gustaffson, 2000). Storbacka *et al* (1994, p23) point out that the basic argument is, “profitability is enhanced by focusing on existing customers because satisfaction leads to lower costs, higher

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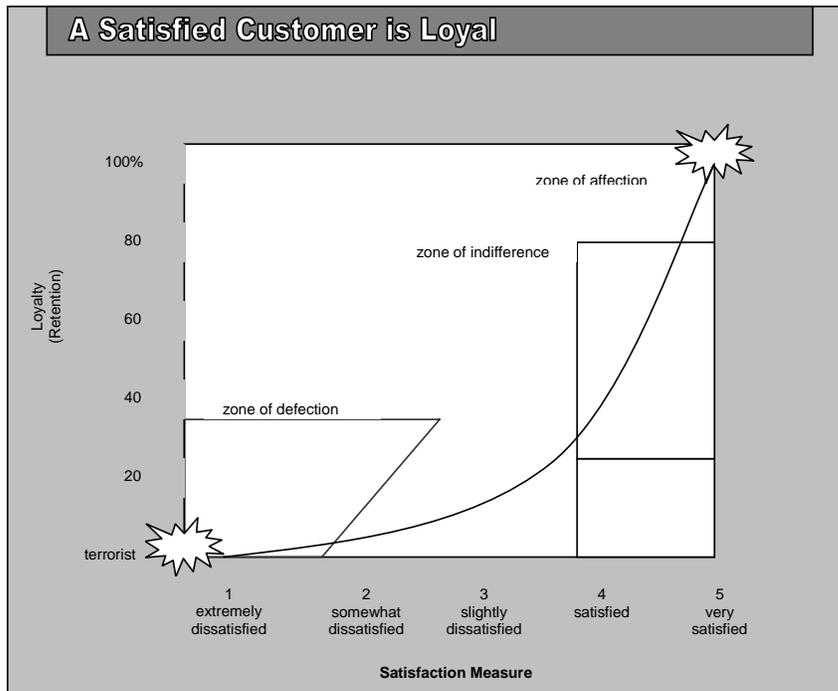
customer retention and higher revenue”. See figure 2.4 below which depicts this relationship. The author of this paper put the figure together based on the theory by Storbacka *et al* (1994)

**Figure 2.4 – Customer satisfaction link to profitability - (Developed by the author of this paper - from Storbacka *et al* 1994, p23)**



Storbacka *et al* (1994, p26) state that, “One way of achieving strong relationships is to ensure that customers are satisfied”. This is as a direct result of customers being value-oriented. Value in this context means they receive more benefits in relation to total costs of acquisition of the product or service. The alternative is that dissatisfied customers will defect and the relationship ends (Storbacka *et al*, 1994; Jones & Sasser, 1995). However Jones and Sasser (1995) quickly point out that customers do not defect immediately upon experiencing unsatisfactory service, but they in fact have a zone of tolerance, referred to in figure 2.5 below.

Figure 2.5 - Zone of tolerance - (Jones and Sasser 1995, p17)



This zone of tolerance can be a basis for a false sense of security. In terms of the figure above the sense of security is normally in zone 4. An often quoted example is that of British Airways before it was transformed into an organisation with a strong appreciation for customer service (Weiser, 1995). A number of customers within British Airways had indicated that they were satisfied but they never came back for more.

In fact Jones and Sasser (1995) refer to this as the gap between *satisfied* and *completely satisfied customers (my emphasis)*. Another example worth quoting is the Xerox example. They point out that it is possible that you can get satisfied customers defecting for as long as they are not completely satisfied. Storbacka et

*al* (1994) point to other aspects which inform satisfaction, including customer commitment and existence of bonds. These bonds and intentions can function as switching barriers beside customer satisfaction. In business to business markets the bonds could span the following areas; social bonds, technological bonds, knowledge bonds, planning bonds, and legal/economic bonds. The effect is that a negatively committed customer may still purchase repeatedly because of the existence of the bonds, especially switching costs (Stobarcka *et al* 1994).

As with the service quality to satisfaction link there will be a need to take into account the intervening factors in order to enrich the findings on customer satisfaction. The data collection tool will be designed with this in mind.

**Comment [K15]:** And costs of the relationship?

The real benefit of satisfied customers comes from demonstrated satisfaction (Johnson and Gustarsson, 2000). Johnson and Gustafsson (2000) argue that satisfaction demonstrated through positive word of mouth and other publicity mechanisms is what drives down costs of doing business. More importantly it is the lack of sensitivity on price increases and future changes that drive down costs of doing business. The next section will discuss loyalty and profitability links.

**Comment [K16]:** Perhaps should be included in the questionnaire

### 2.1.3 The link between customer loyalty and customer profitability

There is obvious confusion between commitment and customer loyalty. Brink and Berndt (2004, p32) argue that, "Customer loyalty means that customers are committed to purchasing products and services from a specific organisation, and



will resist the activities of competitors attempting to attract their patronage”.

**Comment [K17]:** Long quote.  
See if paraphrasing possible

Customer loyalty is the *sine qua non* of profitability in relationship marketing and is regarded as an effective business strategy (Heskett, 2002). Loyalty measures properly constructed become a proxy for future profitability (Johnson and Gustaffson, 2000).

It would appear from the literature review, that customer loyalty can be defined into two separate ways (Jacob and Kyner, cited in Hallowell, 1996). The first definition refers to loyalty as an attitude while the second definition refers to loyalty as a behaviour. This study will focus particularly on loyalty as a behaviour, that is, it will only be the actual purchase behaviour of the customers from the supplier which will be relevant as opposed to the intention to buy. The key reason as Zeithmal (2000, p10) explains is that, “It has long been known that customers do not always behave in ways they say they will; in general, they tend to over report their intentions to buy products and services”. Johnson and Gustaffson (2000) point out that where necessary it may be appropriate to rely upon secondary data to understand loyalty at customer level.

**Comment [K18]:** Do they mean customers or consumers?  
Customers may have certain tied relationships that reduce their ability to choose thus they demonstrate more loyalty because of lock-in

The benefits of an extended relationship with a customer were first articulated by Reicheld and Sasser cited in Heskett (2002). The benefits states Heskett (2002, p 355), “include the margins both from repeated purchases of standard products and services and from purchases of new products”. Heskett (2002, p355) usefully

points out that, “loyal customers may be less costly to serve than those who have not been “trained” how to buy from the supplier”

Customer loyalty by Stobarcka *et al* (1994) is depicted as a combination of relationship strength and relationship longevity. Under relationship strength, critical episodes and patronage concentration need to be factored in and under relationship longevity, patronage concentration and episode configuration could have an impact. The two are interdependent. Stobarcka *et al.* (1994, p31) add that, “An excellently managed critical episode naturally influences relationship strength, deepens the bonds and influences the customer’s commitment to the provider”. Only if the customer is retained can there be any discussion on what the current levels of profitability are and what possible revenue streams will affect future profitability. Hence the need under relationship longevity to measure patronage concentration over a period of time (Johnson and Gustaffson, 2000). In this case as well it may be possible that secondary data would be needed to establish this link over and above the respondent answers based on the data collection tool (Johnson and Gustaffson, 2000).

The link to profitability, it is argued by Allen and Rao (2000), can only be possible if there is customer retention which implies a relationship.

There are a number of ways that have been suggested to try and measure customer profitability. In a study by Hallowell (1996) conducted in a retail bank, the

choice was between return on assets (ROA) and non-interest expense as a percentage of revenue (NIE/Rev) and he settled on the latter. Ofek (2002) and Kaplan & Narayanan (2001) stress the importance of understanding the cost to serve each customer or group of customers and then allocate costs using activity based costing (ABC) model to arrive at total costs.

Kaplan and Narayanan (2001, p9) emphasise that this is important in that, “no one envisions a lifetime of unprofitable relationships when a customer is acquired”. So unless customer economics are understood, that is, the time it takes to become profitable supplier companies will continue to serve unprofitable customers. The concept of customer lifetime value assumes a strong emphasis when it comes to measuring customer profitability. Customer lifetime value is defined as, “relationship revenue less total costs incurred from serving a customer over the life of the relationship with the customer” (Stobarcka *et al*, 1994, p25). This concept is elaborated upon in the section covering segmentation of BOP customers.

Another depiction of this relationship is shown in figure 2.2 (p12) above in the model by Stobarcka *et al* (1994). The two intervening factors in establishing this construct as one with a positive outcome is to understand the relationship costs and compare them to the relationship revenue. The profitability construct in this study will be operationalised by referring to objective secondary data from ABI on each customer that forms part of the sample.

**Comment [K19]:** Give your page reference for ease of reference

**Comment [K20]:** Stress earlier (see previous note)

In summary the logic of the service-profit chain process is as follows; external service quality leads to customer satisfaction, which in turn leads to customer loyalty and then finally to profitability (Storbacka *et al*, 1994 and Heskett *et al*, 1994; 2003). The profit accrues as a result of:

- Reduced costs to acquire customers
- Lower customer price sensitivity
- Reduced cost to serve through familiarity with supplier's delivery system.

The key question and a focus area of this research project is, 'Would this model hold true when tested in an environment of customers who are at the bottom of the customer pyramid, and serve bottom of the economic pyramid consumers in the softdrinks beverage industry in a developing country?' More specifically, 'Are loyal customers who are satisfied more profitable irrespective of context?'

## **2.2 Segmentation concept and the bottom of the pyramid model**

The emphasis on customers having a continuous value as opposed to once-off interactions has driven much of the development around relationship marketing. Due to the fact that relationship marketing is more interested in enhancing the existing customer relationships, segmentation as a means of understanding the customers has taken on a much higher level of importance within this area of research. This section will discuss segmentation for customers and consumers.



### 2.2.1 History of relationship marketing and link to segmentation and CLV

Comment [K21]: Place earlier – before model

The scanning of the literature shows that the history of relationship marketing goes back to the 1970s. The Nordic countries and scholars that have given much prominence to it are Gronroos, 1996; Gummesson, Lehtinen and Gronroos, 1997; Palmer, Lindgreen and Vanhamme, 2005. Gummesson *et al* (1997, p2) point out that, “The two major philosophical and theoretical underpinnings of RM for Nordic researchers are services marketing (The Nordic school), and the network approach to industrial marketing developed by members of The Industrial Marketing and Purchasing Group (IMP)”. The Nordic school appeared in response to perceived shortcomings in the transactional approach to marketing and the IMP contribution to this development has been with the distinctive characteristics of **business-to-business relationships** (Palmer *et al*, 2005). This is discussed in more detail further down.

Comment [K22]: Stress the B2B focus of their research

On the other end of the continuum is the transactional approach mainly espoused by the North American school (Gummesson *et al*, 1997). This thinking was spurred on by mass marketing and consumerism. They further add that, “The US contributions to a general relationship marketing concept were not particularly apparent until the 1990s” (Gummesson *et al*, 1997, p13). This latter school of thought stresses “customer service, often via a dyadic relationship and hence the focus on relationship marketing with respect to the customer and supplier only” (Palmer *et al*, 2005, p5). The two concepts, relationship marketing and transactional marketing do not stand in opposition to each other but could

Comment [K23]: Page reference

simultaneously be practiced (Palmer *et al*, 2005). The difference between the two has often been referred to as the traditional (transactional) and transformational (relational) approach to marketing.

As a result of the different approaches and origins of relationship marketing there have been a number of definitions put forward which show little consensus. For the purposes of this study the definition by Gronroos (1996, p11) has reference: “Relationship marketing is to identify and establish, maintain, and enhance relationships with customers and other stakeholders, at a profit, so that the objectives of all parties involved are met; and that this is done by a mutual exchange and fulfilment of promises” (my emphasis).

The definition above is aimed at showing how the work of the IMP took on the distinctive nature of focusing on B2B relationships. The basis of this thinking is that in business to business dealings, relationships are very important. A study of the literature shows that the rise of service-based industries and an overall increase in the importance of service as an integral part of the product offering has led to the increased focus on relationships, Sheth and Parvatiyar (2000) cited in Palmer *et al* (2005).

The relationships between buyers and sellers are the links that make the exchange of goods or services possible. These relationships take on greater significance in the context of B2B. Palmer *et al* (2005) provide the following: Firstly in business to

business markets, buyers and sellers are fewer but larger and transaction values are greater and, therefore, of higher significance. Secondly, the switching costs are higher. Thirdly, there is increased perception of risk. Finally, the relationship is more about co-operation rather than competition. All the four reasons listed here apply in the context of this study and help facilitate the reason to have relationships between sellers (suppliers of products) and buyers (on-sellers of products to consumers).

The network of relationships positions the two companies to do business with each other. The seller often designs or positions the relationship such that there can be repeat purchases or transactions from the buyer. This is proof that the relationships are formed purely for economic reasons (Palmer *et al*, 2005). But there is also acknowledgement that not all customers are the same and therefore not all relationships should be the same. Thus the importance of segmentation according to a set criteria by the seller. Segmentation is utilised for many reasons, chief amongst them to manage profitability but also for ease of application of marketing mix.

### 2.2.2 Segmentation of customers using the customer pyramid

The classification of customers into homogenous groups based on size and responsiveness and then more precisely creating offering and marketing mixes to satisfy them is not new, say Zeithmal *et al* (2001). The key difference and a newer

**Comment [K24]:** Explain BOP here and then relate it to customer rather than consumer relationships



development is understanding the needs of customers at different levels of profitability, and adjusting service based on those differences (Zeithmal *et al* 2001).

**Comment [K25]:** Explicitly explain the difference between consumers and customers so your terminology is clear

The motivation for the segmentation of customers into groups is driven by the realisation that not all customers are the same and therefore not all customers provide the same value to the supplier or seller over the period or duration of the relationship (Kaplan & Narayanan, 2001; Ofek, 2002). Although business will seek to build relationships with all their customers, these relationships should nevertheless be differentiated based on an agreed criteria relevant to that business or market (Rust, Zeithmal & Lemon, 2000). Zeithmal *et al* (2001, p118) go on to say that, "Innovative service companies today recognise that they can supercharge profits by acknowledging that different groups of customers vary widely in their behaviour, desires, and responsiveness to marketing". It is this justification which is offered in literature for segmenting customers according to set criteria.

Underpinning the concept of customer segmentation as explained above is the idea of a customer having continuing value over a period of time over and above individual and discrete transactions (Rust, Zeithmal and Lemon, 2004). This concept underpins much of the research relating to relationship marketing (Palmer *et al*, 2005). This is often referred to as the customer lifetime value (CLV) and Storbacka *et al* (1994, p25) give this explanation of the CLV, "it is the relationship revenue less total costs incurred from serving a customer over the life of the relationship with the customer". CLV in the context of this study would take into

**Comment [K26]:** Mentioned earlier. Integrate there. Mention here with reference to customers rather than consumers

account the costs incurred by the manufacturer in relation to the regular sales representative call to the middleman (customer), the discount structure offered to the customer, the distribution costs, communication costs including point of sale and generic relationship maintenance costs. These costs would have to be deducted from the revenue generated mainly through purchases and decreased relationship maintenance costs over the period of the relationship.

Zeithmal *et al* (2001) refer to this segmentation as the Customer Pyramid. They view it as a tool at the hands of companies that if properly used can help them identify differences in customer profitability in order to manage for increased customer profitability. Further benefits, they add, could be to strengthen the link between service quality and profitability as well as determine optimal allocation of scarce resources.

The Customer Pyramid is therefore a creation of the supplier business, whether it is goods or services business, and it is operationalised by looking at things like, sales, profit, geography, urban vs rural, trade channel, shopping occasion by consumer and sometimes use of technology.

### **2.2.3 Segmentation of consumers using the bottom of the pyramid model**

The term 'bottom of the pyramid' (BOP) is used to refer to those people across the world that live on less than \$1 to \$2 a day, based on the benchmarks developed and used by the World Bank (Sachs, 2005). The term refers to the bottom of the

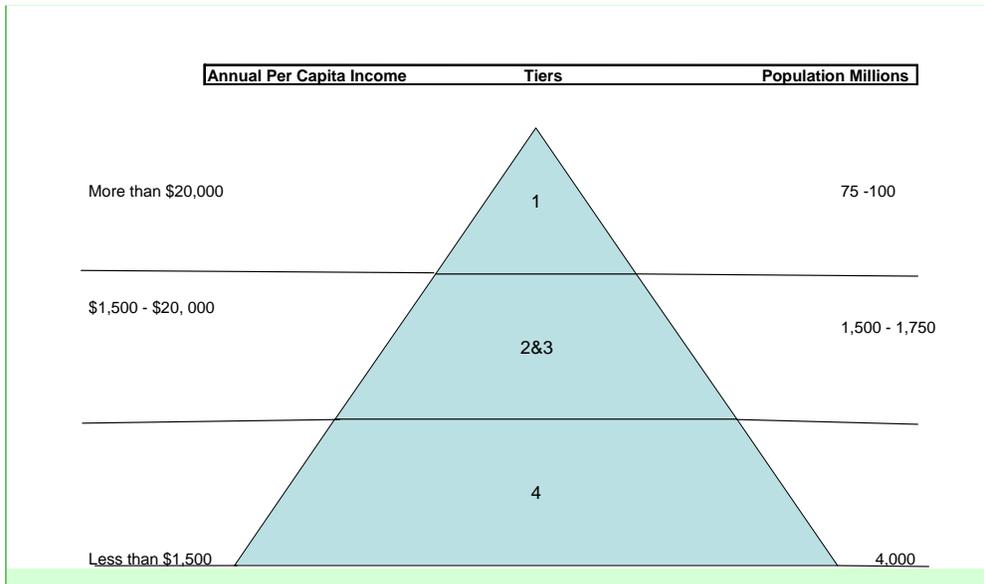
economic pyramid. In the seminal work, *The Fortune at the Bottom of the Pyramid*, by Prahalad and Hart (2002), Prahalad (2005) popularised the term and it has since been widely used to categorise those who are at the bottom of the economic pyramid. Sachs (2005) uses similar segmentation but he refers to it as the economic ladder.

Prahalad and Hart (2002, p2) define the bottom of the pyramid as, “the 4 billion people in the world whose per capita income is less than \$1,500 adjusted for purchasing power parity (PPP) in US dollars, the minimum considered necessary to sustain a decent life”. They further point out that this income equates to per capita income of less than \$2 a day (Prahalad and Hart, 2002). They have essentially segmented the world population using earnings or per capita income and adjusted for purchasing power parity in US dollars to arrive at these numbers.

Using the segmentation of the world’s people as their base they encourage businesses, in particular, multi-national corporations (MNCs) to adopt a different approach and to look at globalisation strategies through a new lens of inclusive capitalism (Prahalad and Hart, 2002; London and Stuart, 2004; Prahalad, 2005). This way, they argue, the MNCs would be in a position to tap onto the latent potential of consumers at the bottom of the pyramid in a profitable manner while at the same time becoming socially responsible. Essentially they propagate that this segment should be viewed as a viable market to do business with thus advancing the profit objectives of MNCs, and hopefully those of the BOP, however this is not

necessarily the key objective. The pyramid as per Prahalad and Hart is as follows, see figure 2.6:

Figure - 2.6 The economic pyramid - (Prahalad & Hart 2002, p3)



Comment [K27]: Page reference

Comment [K28]: Only 3 tiers? THE MODEL REFERS TO 4 TIERS BECAUSE 2 & 3 ARE TOGETHER – SO IT IS ACCURATE

The group of people in Tier 4 is their primary concern and the main focus of the study. In their description they highlight that people in Tier 4 comprise the world's poorest people and make up two thirds of the world's population (Prahalad and Hart, 2002). Further descriptions or characteristics are provided to help illuminate the point on who these people or potential consumers are and they state that, "most of Tier 4 people live in rural villages, or urban slums and shantytowns, and they usually do not hold legal title or deed to their assets (e.g., dwellings, farms, businesses). They have little or no formal education and are hard to reach via conventional distribution, credit, and communications. The quality and quantity of

products and services available in Tier 4 is generally low” (Prahalad and Hart, 2002, p34).

The key proposition put forward by Prahalad and Hart (2002) is that the people at the bottom of the pyramid who are also consumers of MNC products have been largely ignored by them. They have been ignored by MNCs because they rely on conventional thinking and ways of doing business and have thus far favoured largely the burgeoning middle class in developing countries. They further opine that, contrary to conventional thinking there is a vast potential of untapped market opportunity lying latent within this group of consumers or markets (London and Stuart, 2004; Prahalad and Stuart, 2002). On the strength of sheer size and numbers, and the numbers could swell to 6 billion, they believe that it is worthwhile for MNCs to get involved and engage the consumers at the BOP as economic citizens (Prahalad and Stuart, 2002).

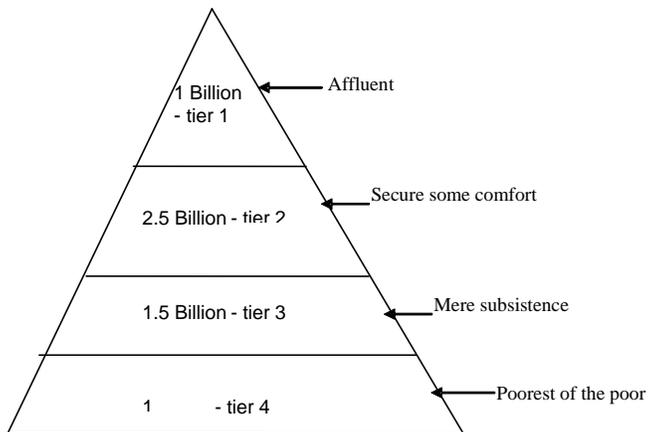
The reality check they provide is that the potential revenue to be gained by targeting the middle class as markets opened up in developing countries, was oversold (Prahalad and Stuart, 2002). They instead advocate for a review of current MNC strategies and a shift towards adopting a long term view to building a sustainable consumer base within the poorest of the poor.

Another approach to segmentation and description of the world’s people is that provided by Sachs (2005). In his seminal work, *The End of Poverty – economic*

*possibilities of our time*, adopts a similar approach in that he uses the World Bank data and benchmark as a premise and point of departure. His depiction of the pyramid, although he does not put one forward in the literature, could be structured as shown below in figure 2.7:

**Figure 2.7 - Poverty pyramid - (Produced from Sachs 2005, p19)**

Comment [K29]: Page reference



At the bottom of the pyramid is the poorest of the poor, or those who live in extreme poverty and they are about 1 billion people. He further goes on to say that, “they all live in developing countries because extreme poverty does not exist in developed countries” (Sachs, 2005, p18). This is even though there are people at the bottom of the economic pyramid in those countries too. They are extremely poor they are not necessarily dying today, but they are all fighting for survival each day (Sachs, 2005).



Further up the ladder is the next group which is equivalent to about 1.5 billion people. Their situation is slightly different in that they live on mere subsistence. Sachs states that they struggle in cities and countrysides to make ends meet. In terms of life situation “death is not at their door, but chronic financial hardship and a lack of basic amenities such as safe drinking water and functioning latrines are part of their daily lives” (Sachs, 2005, p18). Even though Alex which which will be where the study will be conducted is in the most economically powerful province and in an urban area it does not have much affluence.

Comment [K30]: Township vs. rural?

There is yet another 2.5 billion people, up another few rungs, in the middle-income world/countries. These are middle-income households, but they would not be recognised as middle class by the standards of rich countries. Most of them live in cities. Their living standards allow them, Sachs says, “to secure some comfort in their housing, perhaps even indoor plumbing” (Sachs, 2005, p19).

Still higher up the ladder are the remaining one billion people, roughly a sixth of the world, in the high-income bracket. These affluent households include the billion or so people in the countries, but also the increasing number of affluent people living in middle income countries (Sachs, 2005).

Comment [K31]: reference

Sachs’ (2005) approach to segmentation is more from a poverty alleviation angle rather than highlighting the world’s poor as a market for services and goods consumption. To this end he provides a further classification by stating that, “there

are 3 degrees of poverty” (Sachs 2005, p19). There is extreme poverty, moderate poverty and relative poverty. This is how he describes these levels of poverty:

- Extreme poverty means that households cannot meet basic needs for survival. This type of poverty occurs in developing countries only.
- Moderate poverty generally refers to conditions of life in which basic needs are met, but just barely.
- Finally, there is relative poverty. The latter is generally construed as a household income below a given proportion of average national income. The relatively poor, in high-income countries, lack access to cultural goods, entertainment, recreation, quality health care, education, and other prerequisites for upward social mobility.

#### **2.2.4 Application of segmentation to customers and consumers**

This section will look at how the concept of segmentation has been applied in the customer context as well as in the consumer context.

##### **2.2.4.1 Segmentation applied to customers**

Most big companies or suppliers organise customers into customer groups. There are broadly key account customers and non-key account customers. Millman and Wilson (1995, p9) put forward this definition for a key account customer, “we define a key account as a customer in a business-to-business market identified by a selling company as of strategic importance” (my emphasis). In certain instances

some of the key account customers can have regional or national presence or penetration (Millman and Wilson, 1995).

However, this is not so important, the more relevant factor is, are they seen as being “key or strategic” by the selling company and therefore requiring individualised attention (Millman and Willson, 1995)? Often the qualifying criteria relates to the size or profitability of the account to the selling company and based on them meeting this criteria they are accorded key account status (Millman and Wilson, 1995 & 1996). The status would normally come with the following benefits to the customer and supplier, joint and centralised purchasing systems, joint problem solving forums, sharing of relevant and often confidential information, joint business plan development and finally a dedicated resource often at management level, looking after the relationship (Millman and Wilson, 1995).

From a study of the literature there does not appear to be a hard and fast rule for segmentation of customers into tiers. The view offered by Zeithmal *et al* (2001) is that all firms are aware at some level that their customers differ in profitability, in particular that a minority of their customers accounts for the highest proportion of sales or profit. They go on to say that, “This has often been called the “80/20” rule – twenty percent of customers produce eighty percent of sales or value to the company” (Zeithmal *et al*, 2001, p120). They put forward a set of conditions which were used as a guideline in their empirical study. The four conditions are, (a) firstly, tiers must have different and identifiable profiles,

- (b) secondly, the customers in the different tiers must view service quality differently,
- (c) thirdly, there must be different factors driving incidence and volume of new business,
- (d) finally, they must respond to service and marketing differently amongst the tiers.

The set of factors mentioned above will be applied to arrive at those customers who are at the bottom of the customer pyramid and who will in turn form part of the sample population and with whom the empirical test will be conducted.

**Comment [K32]:** Thought BOP was major consideration

The section that follows discusses the concept of segmentation of consumers into the bottom of the pyramid.

#### **2.2.4.2 Segmentation applied to consumers**

For companies with the resources and persistence to compete at the bottom of the world economic pyramid, Prahalad and Hart (2002) point out that the prospective rewards include growth, profits, and incalculable contributions to humankind. Furthermore, MNC investment at the bottom of the pyramid means lifting people out of poverty and desperation (Prahalad and Hart, 2002). Whilst there is a philanthropic element to involvement, there is little doubt in the literature (Prahalad and Hart, 2000; Prahalad, 2005) that the main reasons remain the pursuit of profit.

Prahalad and Hart (2000) believe that there are huge potential profits to be made in this market. The market is estimated by them to be worth about \$13 trillion dollars and therefore more than that of established markets (Karnani, 2006). Another view on what the market is worth is that offered by de Soto (in London and Stuart, 2004). De Soto estimated the size of the market to be \$9 trillion hidden (or unregistered) assets, an amount nearly equivalent to the total value of all companies listed on the 20 most developed countries' main stock exchanges. In addition to assets, he adds, "the value of economic transactions in these markets may match or even exceed what is recorded in the formal economic sectors in developing countries" (London and Hart, 2004, p351).

Prahalad and Hart (2002) hasten to add however that involvement with this market will require a complete rethink on the part of the MNCs as to how they go to market. They add that, "MNCs must recognize that this market poses a new challenge: how to combine low cost, good quality, sustainability and profitability". This is a new and different business model to the traditional one applied in developed markets or even the one applied to developing markets, but aimed at the middle class or the elite within these countries (Prahalad and Hart, 2002).

The economic model for developed markets or for the elite and middle class in developing markets is: low volume, high margins, high profits and reasonable return on capital employed (Prahalad and Hart, 2002). By contrast the economic model for the bottom of the pyramid is: high volume, low margins, high profits but a

high return on capital employed. To achieve this it is not merely about serving existing markets better or more efficiently (Prahalad & Hart, 2002). The contrast between the two is the area of challenge and stretch for MNCs.

Sachs (2005) believes that the vast majority of the world's people are experiencing economic growth and have a foothold on the development ladder which they are actually climbing. The climb Sachs (2005) says, is visible in consumption patterns and improving well-being determinants based on measures such as water, sanitation and education services. And all of this is occurring as a result of rising personal incomes (Sachs, 2005). The greatest tragedy though, Sachs (2005) points out, is the one sixth of the world's poor, the bottom of the pyramid in Prahalad's segmentation model. They live in dire poverty unable to escape from extreme material deprivation. In more precise terms the overwhelming share of the world's extreme poor, 93 percent in 2001, lived in three regions: East Asia, South Asia, and sub-Saharan Africa (Sachs, 2005).

The similarities between the Prahalad and Hart (2002) and Sachs (2005) segmentation models are in the acknowledgement of the varying levels of income, living standards and wealth based on World Bank measures. More fundamentally the four billion that Prahalad and Hart and Sachs refer to is similar and they both point out there are fundamental economic and social reasons for involvement in this market segment. For Prahalad and Hart the BOP consumers are in tier 4 and for Sachs they are mainly in tier 3, 4 and some in tier 2.

**Comment [K33]:** integrate with earlier discussion of tiers

Despite the merits pointed out by Prahalad and Hart (2002) for targeting and prioritising BOP consumers there has been criticism of the assumptions and conclusions aligned to the BOP thinking (Karnani, 2006). What follows is the alternative view.

### **2.2.5 Alternatives to current BOP thinking and segmentation of customers**

Amidst this huge sea of congruence, Baker (2006) points out that Karnani, one of the most vociferous critics, has questioned the fundamentals of the bottom of the pyramid proposition as espoused by Prahalad. Karnani (2006, p29) says: “The BOP proposition is characterized by much hyperbole and very weak research methodology. The fortune and glory at the bottom of the pyramid are a mirage. The fallacy of the BOP proposition is exacerbated by its hubris”. Karnani (2006) attacks the propositions by Prahalad from 4 angles:

- Firstly, Karnani takes issue with assumptions around the potential size of this market. He says that, although Prahalad argues that four billion people fall into this category, according to the World Bank the numbers are closer to 2.7 billion.
- Secondly, he believes that Prahalad has underestimated the high costs that would be borne by multinationals seeking to serve this market hence the reason they have stayed away from investing in it. There is lack of economies of scale.
- Thirdly, the costs of distribution are high because these consumers are geographically dispersed and there is poor infrastructure linking them. The

**Comment [K34]:** comment on those semi-urbanised/tier 2

target population of this study are a ladder up when it comes to distribution costs in that they are not necessarily geographically dispersed and there infrastructural challenges, for instance, there are roads but not properly kept.

- Finally, he concludes that the poor are very price sensitive with limited disposable income and therefore with little or no potential for further consumption outside of basics like shelter, food and fuel.

Karnani (2006, p6) strongly believes that, “the proposition is at best a harmless illusion and potentially a dangerous delusion”. As a counter he puts forward this proposition:

- Firstly, the only way to help the poor and alleviate poverty is to raise the real income of the poor.
- Secondly, the per unit cost of product must be lowered in order to increase their effective income.
- Thirdly, and most profoundly, the poor should be viewed primarily as producers and not consumers.
- Finally, governments have a critical role to play in uplifting the poor at the bottom of the pyramid as opposed to the private sector taking the lead.

The purpose of this study is not to delve deeper than has been done already into the numbers and size of people at the bottom of the pyramid. Based on the inputs by mainly Prahalad and Stuart (2002), London and Stuart (2004), Sachs (2005)

and Karnani (2006), it is accepted that there is a bottom of the economic pyramid. It seems the numbers and size of the market differ based on the measurements being relied upon and this may affect the economic potential. However, the segmentation is not questioned. The critique by Karnani (2006) is relevant in as far as it balances the debate and is also extremely relevant in helping to narrow down the value to be had in these markets, hence the need to test the relationship profitability model in the context of business-to-business markets.

For the purposes of this study the leading contribution by Prahalad and Hart (2002) will be relied upon. In summary the bottom of the economic pyramid proposition put forward by Prahalad who is considered a pioneer (Karnani, 2006) and lead contributor in the field is as follows:

- (1) There is much untapped purchasing power at the bottom of the pyramid.  
Private companies can make significant profits by selling to the poor.
- (2) By selling to the poor, private companies can bring prosperity to the poor, and thus can help eradicate poverty.
- (3) Large MNCs should play a leading role in this process of selling to the poor.

When it comes to customer segmentation a study of the literature did not reveal any opposition to the concept. However, whilst there is sufficient merit and academic agreement on the role and the benefits of relationship marketing and key account management as an off-shoot of relationship marketing, there is a dark side to it or area of weakness (Ramkumar and Saravana, 2007). Ramkumar and

Saravanan (2007) in their recent article, come up with three points, two of which are relevant here: (a) dissent among loyal customers because of the company's preoccupation with a set band or segment of customers to the exclusion of others, and (b) souring relationships over time. Partners in long term relationships may develop a 'What have you done for me lately' attitude. However, on the whole the segmentation of customers is seen as useful and a good step towards understanding how to extend the lifetime value of customers.

It is imperative therefore that businesses heed the warnings by Ramkumar and Saravana (2007) when segmenting customers into various groups. It must also be mentioned that businesses must regularly review the basis of their segmentation in order to ensure relevance and that their objectives are met.

The next section will discuss information relevant to South African and how the bottom of the pyramid concept applies to the South African context.

### **2.3 South Africa and the BOP link**

South Africa, the context of the study, provides an interesting background for the empirical test of the relationship profitability model. It is interesting in that there is a strong presence of people at the bottom of the pyramid (South African Survey 2004/2005). But equally there are people who are very affluent thus giving the country a character of two economies, a first and second economy (Development

Bank Report, 2005). South Africa's Gini coefficient remains among the highest in the world. It is estimated to be 0,66, however, as a result of social mobility instigated by old-age pensions and disability grants, it is now thought to be around 0.44 (Development Bank Report, 2005). Despite this perceived improvement the reality shows huge disparities in income levels and very little improvement in poverty levels.

South Africa's per capita GDP, corrected for purchasing power parity (PPP) was \$11 240 per annum in 2001, making it one of the 50 wealthiest countries in the world (Development Bank Report, 2005). However, as explained above in terms of the Human Development Index (HDI) in 2001, South Africa ranked 111 out of 175 in 2001, and 115 in 2003. A decline from a rank of 93 in 1992 (Development Bank Report, 2005). The reason South Africa is ranked this way, despite being one of the 35 largest economies, is generally because of the racial aspect of development indicators which have remained largely unchanged since the advent of democracy (Development Bank Report, 2005). The index of the poorest (mostly African) and richest (mostly white) provinces shows the diversion and how the structure of rich and poor which is largely based on race is still intact (Development Bank Report, 2005).

Various contributors to the report come up with different figures when confirming numbers of people living in poverty i.e. on less than \$1 a day. Van de Ruit an May (2003) quoted in the Development Report (2005) came up with a figure of 8.6

Comment [K35]: year?

million in 2000. Hoogeveen & Ozler (2002) cited in the same report (Development Bank Report, 2005) arrived at a figure of 14,4 million for 2003. They further add that about 25,9 million South Africans were living on less than \$2 per day also in 2000. This places South Africa squarely within the context of being a middle-income developing country. By virtue of the numbers above it is clear that the segmentation of the markets/consumers used by Prahalad and Hart (2002) and Sachs (2005) and the reference to bottom of the pyramid has apt use to define a sizeable portion of the population in South Africa.

Given these set of circumstances and factors, the main question to be answered in this study is, do the constructs of the service-profit chain apply? The paradox is how to balance the growth potential that is latent in this market and the desire to have a profitable relationship driven by the service-profit chain constructs. A relationship based on the service-profit chain constructs assumes costs (Kaplan and Narayanan, 2001; Ofek, 2002). But the costs generated by the acquisition, servicing and disposal of the customer are acceptable if they can be recovered over the lifetime value of the customer (Ofek, 2002). The answer to this question should help practitioners and managers alike organise and manage relations, investment and allocation of resources into this market. Furthermore in order to achieve customer satisfaction which is imperative and leads to the construct of loyalty, service quality must be improved. The improvement of service quality brings about costs. But without a tailored approach to improvement of service quality there is likely to be high costs and no customer satisfaction which is so

critical. Hence the need for managers and practitioners to understand the customer economics of this market and therefore the role of the service profit chain.

#### **2.4 Summary of the literature review**

A literature review was conducted to explore the relevant themes of the subject. The topics covered were (1) the service profit chain and in here the relationships between the 4 key constructs were explored, (2) the concept of segmentation and the model applicable to the bottom of the pyramid customers and consumers was covered. In here relationship marketing as the antecedent to segmentation in the context of business to business markets was covered (4) Finally, South Africa and the link to the bottom of the pyramid was discussed. The key objective in this section was to show the link between South Africa and the bottom of the pyramid concept. South Africa forms the background for the study.

The literature review established that there is indeed merit in the service-profit chain as a logical means to manage profitability of customers in a context of business to business relationships and not only in business to consumer relationships. Previous studies that have been done in this area have been done in the context of developed countries as well as in contexts of business to consumer relationships with customers who would mostly be regarded as desirable

because of obvious continuing income streams. In other words they would be regarded as being higher up the customer pyramid or even key account customers.

But it is evident in the literature that the need to have profitable relationships with customers is a sound business strategy for all businesses irrespective of context and rank on the customer pyramid. Essentially businesses who see value in a customer should invest further with the view to recovering that value over the lifetime of that relationship. This is seen as much more strategic than just continuously adding to your customer base placing the emphasis therefore on existing customers.

**Comment [K37]:** reflect on BOP metrics: high volume; potential future growth

The attraction to this market, the bottom of economic pyramid consumers who are serviced by bottom of pyramid customers is the untapped purchasing power. The metrics offered in the literature for this segment are: high volume, low margin, high profit and high return on capital employed. But these need to be countenanced by potential high distribution costs, limited income or potential expenditure outside of basic services and lack of economies of scale. The trick therefore is to aim for low cost, good quality, sustainability and profitability. This still requires a certain level of investment to be made and recovered through sales over the duration of the relationship.

However, the trouble with this is that the point at which the investment is made is either internally with employees who deliver the service through employee

programmes or at the point of service delivery itself. This could entail various customer programmes aimed at increasing service quality and therefore lead to retention and repeat purchases. All of these investments could be very costly and unrecoverable. Business managers are required to make choices based on their understanding of their customer base and driven by the service-profit chain peculiar to their situation.

Comment [K38]: question of choice

The potential for growth and high profits plus the potential stumbling blocks presented by poor infrastructure, low income and return of capital employed points to the need to understand customer economics a lot more intimately by customer segment and group. On the other hand this points to a potential weakness in the literature in that the service profit chain advocates a linear approach and almost a one size fits all. Some authors have warned against this simplistic approach, pointing to industry nuances that could affect the linear approach as well as other intervening factors which could positively or negatively affect the relationship profitability model beyond the control of the supplier organisation.

Herein lies the need for this study. Its aim is to take the established service-profit chain constructs and test them in a different context of a middle income country, with a different set of customers who do not present obvious continuous cash flow streams and who operate with consumers who are not cash flush, in that they are at the bottom of the economic pyramid. The desire of these consumers is mostly to cover basic food, shelter and fuel needs. However, there is huge potential for



growth and interesting revenue potential for businesses that are willing to embrace these opportunities. The key question though is, could the service-profit chain be applied in this context to drive resource allocation and investments aimed at improving customer profitability?

Chapter Three introduces the research hypotheses as laid out in the service-profit chain and the methods to be used in the research.

### **3 CHAPTER 3 – RESEARCH HYPOTHESES**

#### **3.1 Introduction**

The literature review covered the service-profit chain theory and the segmentation of both customers and consumers using the bottom of the pyramid model. The theory behind the service-profit chain was discussed and the various components/constructs of the service-profit chain were in turn discussed. Furthermore, segmentation of customers in a business to business context was explored, as well as the segmentation of consumers using the model put forward by Prahalad and Stuart (2002). Finally, the link between South Africa and the BOP was discussed.

#### **3.2 Research Objectives**

The purpose of this study is as follows:

To test if the constructs enunciated in the service-value chain hold true with bottom of the pyramid customers who operate in the context of the bottom of the pyramid consumers in a middle income country.

#### **3.3 Research Hypotheses**

This chapter will cover the research hypotheses. In statistical theory a hypothesis is an unproven proposition or supposition that tentatively explains certain factors or

phenomena (Zikmund, 2003). The hypothesis represents an assumption by the writer of a view of the world. The benefit of statistical tools is that there is an opportunity to confirm whether or not the theoretical hypotheses are confirmed by the empirical evidence (Zikmund, 2003).

The study will not attempt to answer the question of causality between the constructs but will take for granted that sufficient literature exists to this effect (Heskett *et al*, 2003). Furthermore, not all the constructs as per the Heskett *et al* (2003) or the Stobarcka *et al* (1994) model will be tested. The key reason behind this is that due to time constraints and access to company employees, the study will not be able to extend as far as testing whether employees are satisfied or not. The constructs which will form part of the empirical test based on the literature review are as follows (as per figure 2.1 & 2.2 above):

**Hypothesis 1:**

The null hypothesis states that there is no link between service quality and customer satisfaction in the business to business (B2B) relationship between a supplier and customers that are at the bottom of the customer pyramid and service bottom of the economic pyramid consumers in a middle income country. The alternative hypothesis states that there is a link between service quality and customer satisfaction in the business to business relationship between a supplier and customers that are at the bottom of the customer pyramid and service bottom of the economic pyramid consumers in a middle income country.

**Hypothesis 2:**

The null hypothesis states that there is no link between customer satisfaction and customer loyalty in the business to business (B2B) relationship between a supplier and customers that are at the bottom of the customer pyramid and service bottom of the economic pyramid consumers in a middle income country. The alternative hypothesis states that there is a link between customer satisfaction and customer loyalty in the business to business relationship between a supplier and customers that are at the bottom of the customer pyramid and service bottom of the economic pyramid consumers in a middle income country.

**Hypothesis 3:**

The null hypothesis states that there is no link between customer loyalty and profitability in the business to business (B2B) relationship between a supplier and customers that are at the bottom of the customer pyramid and service bottom of the economic pyramid consumers in a middle income country. The alternative hypothesis states that there is a link between customer loyalty and profitability in the business to business relationship between a supplier and customers that are at the bottom of the customer pyramid and service bottom of the economic pyramid consumers in a middle income country.

## **4 CHAPTER 4 – RESEARCH METHODOLOGY**

This chapter focuses on the research methodology and how it was applied to the research constructs covered in Chapter One and Three. It deals with the population, the sample size and selection, how the questionnaire was designed, the data collection process, data analysis and research limitations.

### **4.1 Research Methods**

The research methodology utilised was the quantitative research method. Quantitative research is employed when the researcher comes after a long tradition of research into an area; thus the area is well defined (Chipp, 2007). Researchers thus seek to either determine the degree to which it is present or the impact of the field in other areas – an attempt to manipulate variables within the field of study (Chipp, 2007). It is submitted that the research process followed in this chapter was aimed at the former, the extent to which service profit chain was applicable or present in a different context. As a result of the study being quantitative, it will have breadth instead of depth and consequently there will be a greater chance of generalisations (Chipp, 2007).

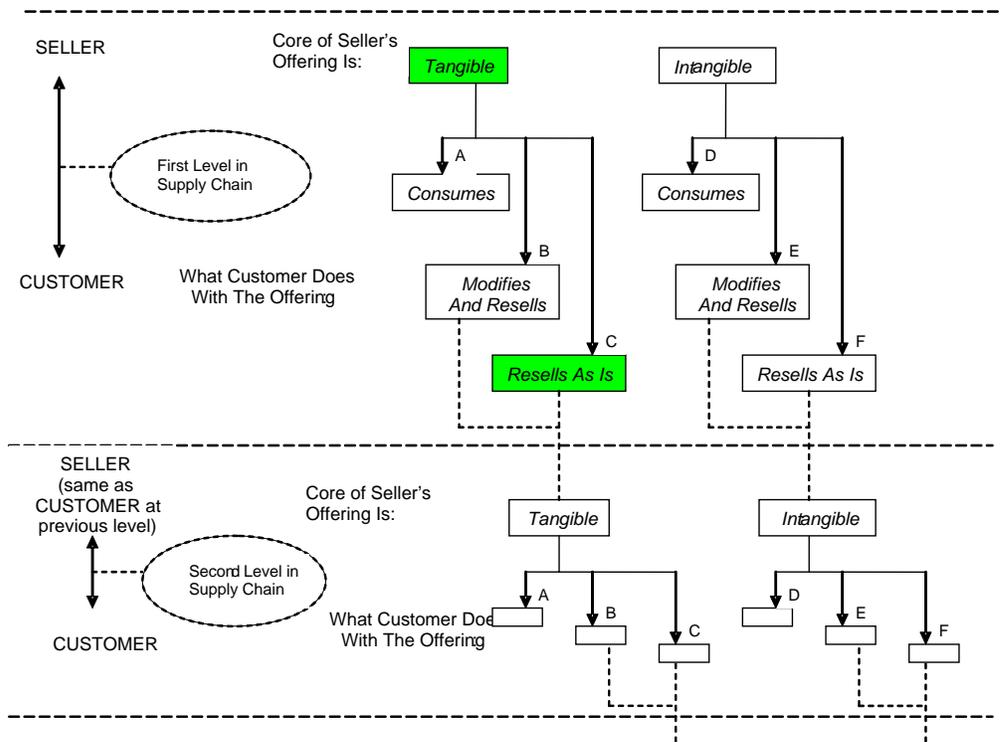
### **4.2 Unit of Analysis**

The unit of analysis for this study was the customers of the chosen soft-beverage manufacturer and distributor operating in South Africa. The reason why the

customer was chosen as the unit of analysis was because this is the key area where customer service is experienced and profitability measured. Palmer *et al* (2005) also confirm that the unit of analysis in business to business relationships is the customer.

The customer in the context of this study whose focus is business to business relationships is the purchaser of tangible goods from a supplier or seller for on-selling to the end consumer without modification. The customer is the middle-man between ABI, the softdrinks beverage company, and the end consumer. See figure 4.1 below which details out this relationship.

**Figure 4.1 - Seller-customer links in business to business markets – (Parasuraman 1998, p311)**



Of prime interest to this study is the section of figure 4.1 above which is highlighted in green and shows the tangible goods flow. The product is bought from the manufacturer or supplier fully converted and packaged. It is then stored by the customer as stock or inventory. It is then sold as it was procured from the manufacturer or supplier to the end consumer. Parasuraman (2000) argues that service quality in this regard is very important for both tangible and intangible products and services. Gummesson *et al*, (1997) also confirm that in the context of business to business relationships service quality takes on a greater significance.

### 4.3 Population of relevance

Blaikie (2004, p160) explains that, “In order to apply a sampling technique, it is necessary to define the population (also called the target population, universe or sampling frame) from which the sample is drawn”. He goes on to say that, “A population is an aggregate of all units or cases that conform to some designated set of criteria”. The population of relevance was defined based on the purpose of this study, a set criteria as well as utilising prior knowledge of the researcher.

The population of relevance consisted of all small businesses (alternatively SMEs) called Spaza Shops, using the formal terminology employed by the manufacturer and widely utilised in the industry, as well as General Dealers. The businesses are based in the Southern part of the Gauteng province. Gauteng is the most progressive and economically powerful province in South Africa (South Africa



Survey, 2004/5; Development Bank Report, 2005). The province has, as per Prahalaad & Hart (2002) model, all tiers, 1 to 4. There are tier 1 consumers who would match the affluence found in developed countries, there are tier 2 & 3 consumers who are also relatively affluent and form a big part of the emerging middle class. Finally, there are tier 4 consumers who share the characteristics outlined by both Sachs (2005) and Prahalaad & Hart (2002). The area where the study will take place has mostly tier 4 but also some tier 3 consumers. They suffer mostly relative and moderate poverty as per Sachs (2005) contribution. They can just barely meet basic services and have income levels below national averages (South Africa Survey, 2004/2005).

Comment [K39]: Relate to tiers in BOP

The businesses that form part of the population of relevance all conformed to the following criteria. They had a formal contract to be supplied goods by the manufacturer of the goods based on credit or cash basis. These businesses existed on the database of the supplier and received a regular delivery service and/or account management, *albeit* on an individual shop level rather than as a group, from them based on a contractual arrangement. There was also a history of exchange and service delivery between the selected beverage company (supplier) and individual businesses spanning a period of at least 3 years (36 months) prior to the research being conducted. They all had an investment in the store, placed by the supplier, of a cooling or refrigeration asset.

Comment [K40]: Who are 'they'

The total population that was chosen for this study based on the stated criteria and definition above was 2000 Spaza shops and General Dealers.

#### 4.4 Sampling method and size

Blaikie defines a sample as, “a selection of elements (members of units) from a population and is used to make statements about the whole population” (Blaikie, 2004, p161). He further states that, “The ideal sample is one that provides a perfect representation of a population, with all the relevant features of the population included in the sample in the same proportions. However, while this ideal can be approached, it is difficult to achieve fully in practice”. In this particular study practicality was a huge factor, in that whilst the study of the whole population would have been ideal, it was important that the study is not tedious or expensive and hence limitations were placed. The immediate limitation was to ensure that the sample was limited to geographic areas which the researcher could gain access to easily.

According to Zikmund (2003) there are two basic sampling techniques: probability sampling and non-probability sampling. For this particular research a probability method, using simple random sampling was, followed. A probability sample is, “where every population element must have a known and non-zero chance of being selected” (Blaikie, 2004, p161). The simple random sampling method is the



best known probability sample, in which each member of the population has an equal probability of being selected (Zikmund, 2003, p 379).

**Comment [K41]:** Explain which type of probability sampling and how employed

The population was drawn from a secondary data source called Margin Minder based on the criteria explained earlier. The information was downloaded into Microsoft Excel package. A simple random option was picked which assigned numbers randomly to the whole population. The first 120 were picked to form part of the sample population.

The probability method was chosen in order to be able to draw conclusions about the population. This allows for inferential analysis to be done. Blaikie (2004, p 162) describes inferential analysis as, “a collection of methods for estimating what the population characteristics (parameters) might be, given what is known about the sample’s characteristics (statistics), or for establishing whether patterns or relationships, both association and influence, or differences between categories or collectivities can exist in a sample could also be expected to exist in the population”. The aim of this research as described earlier is to gather whether the service-profit chain applies in the context so that it can be generalised in similar contexts within the population of relevance.

With regards to sample size, the general rule is the bigger the better. However, Blaikie (2004, p166) points out that, “increasing the sample size is subject to the ‘law’ of diminishing returns. In this research project a sample of 115 customers

was utilised and it was considered sufficient in order to generalise the findings to the rest of the population. However, there are obvious limitations to the generisability and that is the population is confined to Gauteng and the population is composed of customers to one supplier, ABI.

**Comment [K42]:** Limitations: population in Gauteng linked to a particular supplier - ABI

#### 4.5 Questionnaire design

The questionnaire was designed with the intention of collecting the data required to answer the research hypotheses.

Descriptions of each of the three independent or predictor variables, service quality, customer satisfaction and customer loyalty were included in the questionnaire in order to ensure clarity and understanding. The dependent variable was not included in the data collection tool firstly because it is an outcome variable, but more importantly because the information on profitability was obtained from the Margin Minder information system which is used by ABI to track customer purchases and profitability.

The questionnaire comprised of the following six sections:

- Introductory section
- Explanation
- Demographic & experience variables
- Service quality



- Customer satisfaction
- Customer loyalty

From the literature review it would appear that there is no unequivocal answer as to whether a five-point, seven-point or ten-point scale works better. However, both Allen and Rao (2000) and Johnson and Gustaffson (2000) recommend a seven-point scale. Allen and Rao (2000) point out that the wider distribution of scores around the mean provides for better discriminating power. Furthermore the discriminating power enables the isolation of poor performers. The scale used therefore was the seven-point scale. The scale definitions were modelled on recommendations found in the books by Bearden and Netemeyer (1999) as well as Brunner and Hensel (1992).

**Comment [K43]:** Query regarding customer receptivity to 5 or 7 points in emerging markets

Once the questionnaire was drafted it was tested with a sample of ten randomly selected customers. The test turned out to be extremely useful in that it provide feedback for further amendments to the questionnaire. It was discussed with the research supervisor and subsequently modified to include important insights and to make it more understandable to the target population. The results of the pre-test as well as further discussions with the supervisor confirmed the tool as the appropriate one to use for the purpose of the study.

An example of the survey questionnaire can be found in appendix A



#### 4.6 Data collection method

The data collection method employed was the survey method. Zikmund (2003, p175) defines a survey as, “a method of gathering primary data based on communication with a representative sample of individuals”. In this research study a questionnaire was relied upon to gather the necessary data. Zikmund (2003) also highlights that the survey method can potentially provide quick, inexpensive, efficient, and accurate means of assessing information about the population. Furthermore, surveys are most used for collection of quantitative data but could also be use for qualitative data.

A group of students doing their final year B.Comm (Marketing) degree were selected to do the interviews. They were selected specifically for their knowledge after having done a course on research theory. Besides the obvious benefit to the researcher of using trained people the students also benefited immensely from the exposure to real life research in one of the most vibrant areas in South Africa.

The surveys were done face-to-face in order to ensure clarity of questions and partly to deal with any language issues. Three meetings took place to brief the students on how to conduct the survey questionnaire amongst a sample population. The briefing entailed the reasons behind the research, the questionnaire design, as well as the importance of data integrity. The use of third party to collect data was appropriate because the population was well defined and

it also helped achieve a very high response rate. A further benefit of the methodology of face-to-face interviews was the ability to reach in excess of 100 respondents in the shortest possible time.

**Comment [K44]:** Also because interviews were face to face

#### 4.7 Data Analysis

The analysis was done based on the responses to the questions by the respondents. This was for the research hypotheses as stated in Chapter Three. The proposition relating to profitability was analysed based on system data obtained from a programme called Margin Minder, which is used by ABI the softdrinks division of SAB. In this programme or system resides all information relating to biographical details and purchase data for the length of the relationship with the customer. From the purchase data it is then possible to track a decrease or increase in sales by week, month or year. Furthermore, it is also possible to determine profitability based on the purchases.

The analysis of respondents' responses based on the data collection tool were downloaded into a MS Excel spreadsheet for analysis. The data in the spreadsheet was checked for completeness and integrity. The statistical analysis was performed using a programme called Statistica Version 8 software.

**Comment [K45]:** Before this a merge is required between the two databases

As the biographical variables were categorical in nature histograms were presented based on the frequency of each variable. In order to test the

hypotheses of the relations between service quality and customer satisfaction, customer loyalty and customer profitability Pearson's product-moment correlation coefficients were computed between the subscales, and these were tested for significance at 5%, 1% and 0.1% levels of significance. The correlation coefficient is a measure of the linear relations between two variables and it is the most popular technique used for this purpose (Zikmund, 2003).

These parametric tests assume the underlying Normally distributed variables. However, the distributions of the four variables were all significantly different from the Normal probability distribution as shown by the Kolmogorov-Smirnov (KS) test .

The KS test is used to determine whether an empirical distribution for example, the distribution of any of the four variables in the study differs from the theoretical distribution, in this case the Normal probability density function (Zikmund, 2003). When the KS tests yield a significant difference between the empirical distribution and this Normal distribution the data cannot be assumed to be normally distributed (Khamis, 2000). In an attempt to correct the non-normality of the distributions in this study various transformations of the raw data were considered according to Tukey's Ladder of transformations (Phillips, Vargas, Monteagudo, Cruz, Zans, Sanchez and Rose, 2003) which suggests transformation of various strengths to correct for positive and negative skewness. In case of the variables of service quality, customer satisfaction and customer profitability the log function transformation yielded Normally distributed probability distributions as tested by KS

test statistic. However, none of the transformations in Tukey's Ladder was successful in transforming the customer loyalty variable. As the skewness of this variable was not high (skewness = -0.75), the customer loyalty variable was thus retained for analysis in its original form. Skewness is the extent to which the shape of the distribution of scores is asymmetrical and ideally should be zero or close to zero (Blaikie, 2003). Frequency distribution of both the transformed and untransformed variables were supplied

#### **4.8 Limitations of the Research**

The research tested only the views of respondents of one softdrink beverage company, ABI who reside in a specified geographic area and therefore cannot be interpreted as the views of all customers in this industry or even the views of all customers on the ABI database. ABI do, however, have the deepest and widest penetration of this particular group of customers (Pearson, Henning and Bodiba, 2005). Secondly, the province of Gauteng is the economic powerhouse of South Africa (South Africa Survey, 2004/5; Development Bank Report, 2005) and this may skew the results positively or negatively.

There are two further possible limitations result from the survey process itself. Firstly, there could be lack of honesty in responses. This was mitigated by ensuring that the data collection was done by an independent group of people, i.e., students. And it was also pointed out in the introductory letter done on a Gordon



Institute of Business Science (GIBS) letterhead that the research is purely for academic purposes. Secondly, the literature review does point out that in as much as when customers assess service quality based on the overall experience one bad or positive experience could sway the assessment. It was impossible to provide for this completely in the survey except for those questions which specifically asked the customer to provide their overall experience.



## **5 CHAPTER 5 – RESULTS**

### **5.1 Introduction**

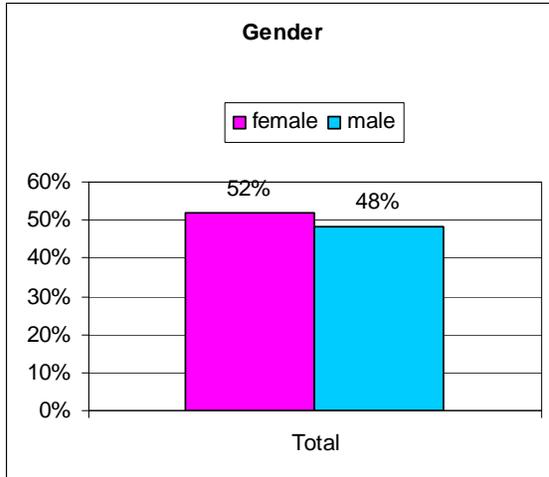
The research results chapter presents the findings of the 104 questionnaires collected through the measures described in Chapter Four, to test the research hypotheses as set out in Chapter Three. The chapter will follow this format: there will be a presentation of data relating to biographical variables and experience variables of all the respondents. Variables relating to the businesses or outlets will also be presented. Furthermore there is going to be a discussion relating to the data preparation that took place prior to the presentation of results relating to the research hypotheses. Finally, results relating to the hypotheses will be presented starting with hypotheses one to three as set out in chapter Three.

### **5.2 Profile of the respondents – biographical data**

The questionnaire comprised four questions relating to the biographical data of the respondents. Two of these questions describe the profile of the respondents very well; it is namely their gender and age. The race and language variables presented very little variation and thus no figure or graph is presented for them. The outcome of these last two variable is as follows, all but one are black and all these spoke indigenous languages respectively.

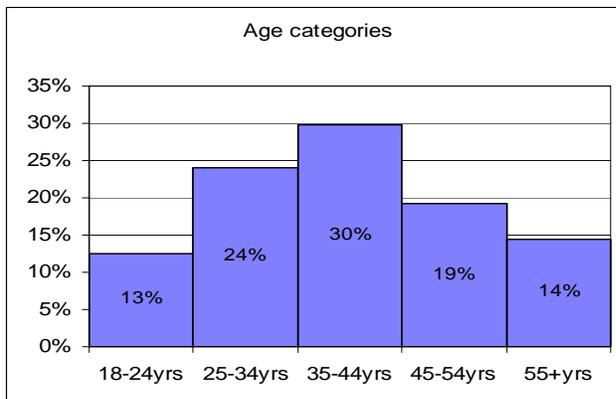
Figure 5.1 summarises the gender profile of the respondents. The sample is made up of 52% female and 48% male.

**Figure 5.1 Gender Profile (n = 104)**



The age profile of respondents ranges from between 18 – 24 years to over 55 years. Thirty percent which is approximately one-third are between 35-44 years and approximately 33% are older than 44 years. See figure 5.2.

**Figure 5.2 Age categories (n = 104)**

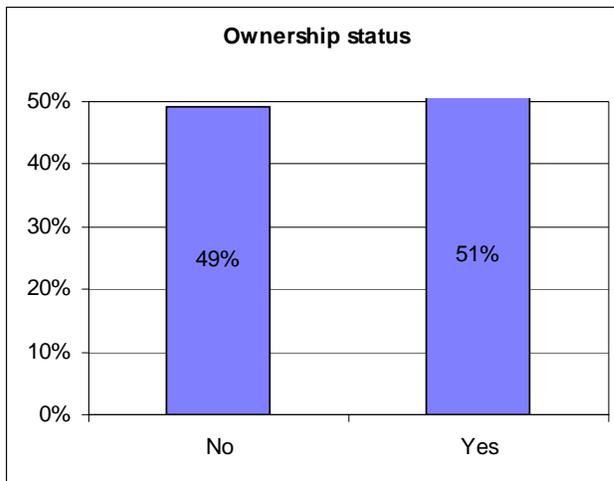


### 5.3 Profile of the respondents – experience data

The questions on experience variables sought to determine the level of experience of the respondents and therefore their knowledge of the attributes covered in the questionnaire. Four key variables were tested: ownership status, core area of responsibility, length of association with outlet and the nature of relationship with ABI.

Ownership status is presented below in figure 5.3. Slightly more than half (51%) of the respondents own the outlet.

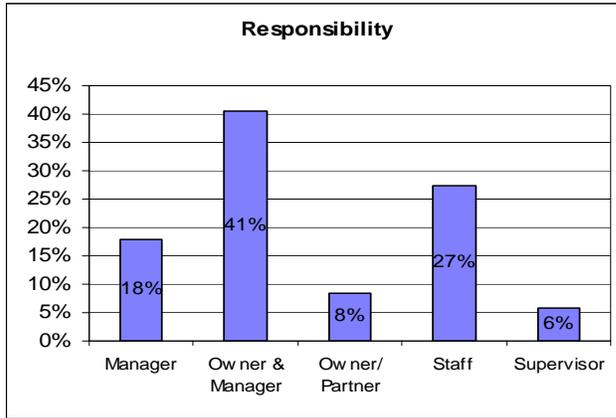
**Figure 5.3 Ownership status (n = 104)**



The core area of responsibility of the respondents is presented in figure 5.4 below. Most respondents indicated that their main area of responsibility is owner and

manager (41%), or staff (27%) or manager (18%). Other types of responsibility were owner/partner and supervisor.

**Figure 5.4 Core area of responsibility (n = 104)**



Length of association with the outlet is shown below in figure 5.5. A total of 45% of the respondents were associated with the outlet or business for 10 or more years. A further 25% were associated with the business for 0 – 3 years.

**Figure 5.5 Length of association with outlet (n = 104)**

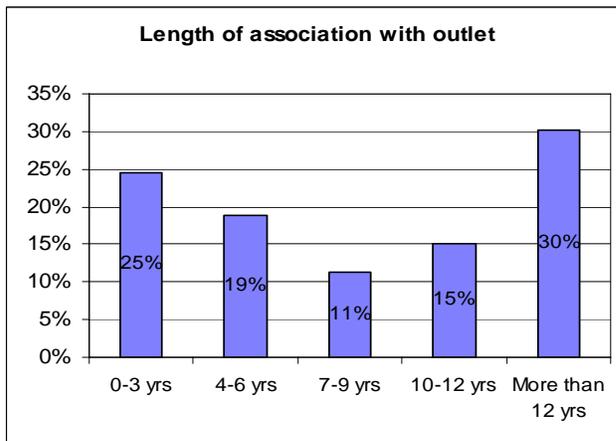
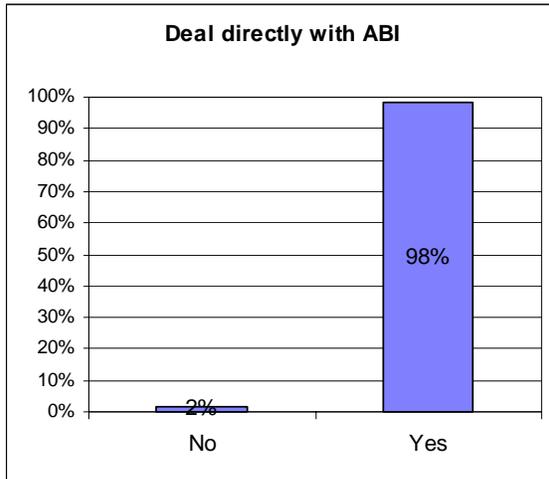


Figure 5.6 indicates the percentage of respondents who have direct dealings with ABI staff both sales and distribution. It is evident that virtually all (98 %) the respondents deal with ABI staff directly.

**Figure 5.6 Deal directly with ABI (n = 104)**



From these four experience variables, it is clear that the sample consists of persons who have an intimate knowledge of the ABI service quality experience and are therefore qualified to rate the satisfaction and loyalty components of the service-profit chain.

#### **5.4 Profile of the outlets surveyed**

The outlet data is derived from the random sample list which was used for the sample population. The profitability categories are shown in figure 5.7 and the trade channel, which is in essence the core business they are in, is figure 5.8.

Figure 5.7 below shows the profit categories obtained from Margin Minder an objective secondary data system. These categories have been chosen as they make sense to the business initiatives of ABI and they will become relevant in the discussion and interpretation of results in the next chapter. The categories are R0 – R49 999 = tier 1, R50 000 – R99 999 = tier 2 and finally tier 3 = R100 000 and above.

**Figure 5.7 Profitability categories (n = 104)**

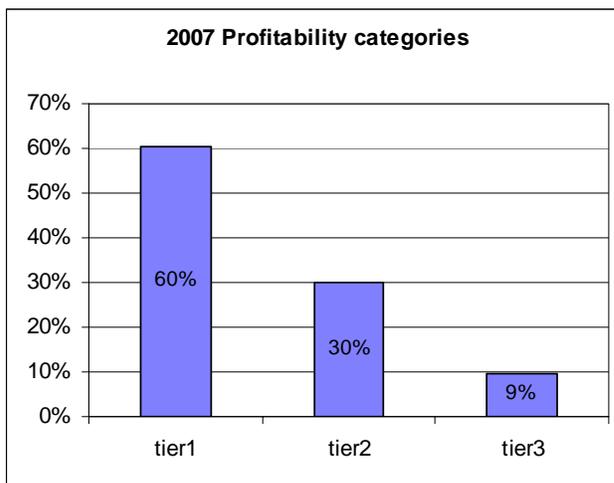
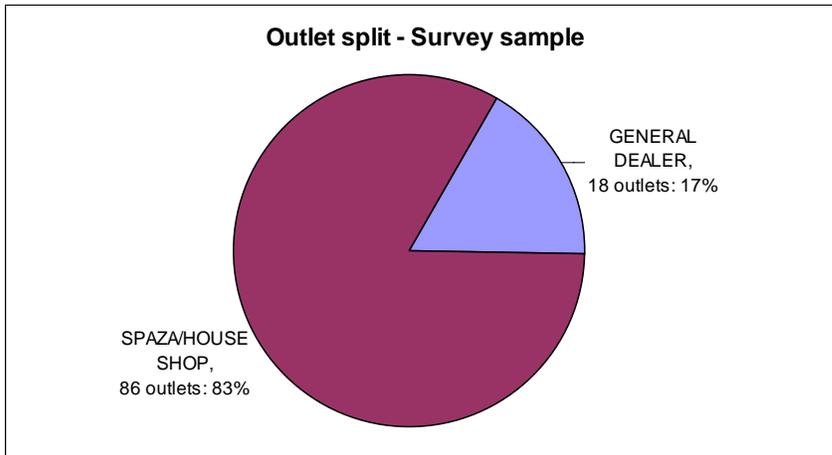


Figure 5.8 below shows the trade channel split. The figure is presented to demonstrate that the outlets that formed part of the sample population are normally at the lowest rung of the customer pyramid and most of the people who run them are “survival” entrepreneurs.

**Figure 5.8 Trade channel split (n = 104)**



## 5.5 Preparation of Data

This section deals with the transformations of the variables of service quality, customer satisfaction and customer loyalty as well as the revenues of the three years accompanied by the supporting tables and figures. The reliabilities of the sub-scales of service quality, customer satisfaction and customer loyalty are also provided.

### 5.5.1 Data Transformation

One of the fundamental assumptions of parametric analysis is that the underlying data is normally distributed (Zikmund, 2003). As the mean scores on the 3 sub-scales were not normally distributed as evidenced by the significant Kolmogorov-Smirnov (KS) statistics, transformations were undertaken. The transformations that were most successful in normalising the data were the log in the case of

service quality and logs of reversed scores in the case of customer satisfaction. There was however no transformation of customer loyalty that yielded a normal distribution according to the KS criterion of normality. Refer to the figures in Appendix B.

The distributions of profitability data for the 2005 to 2007 years also required transformation as they were highly positively skewed. For these three years a log transformation was used and the resultant Kolmogorov-Smirnov statistic (the KS d statistic) showed that the transformed distributions can be considered to be normally distributed. Table 5.1 provides descriptive statistics of raw and transformed model variances, as well as the KS d statistic.

The KS d statistic was significant on the untransformed variables of service quality, customer satisfaction, customer loyalty and the revenue for the three years. All variables other than customer loyalty can be considered to be normally distributed based on the lack of significance of KS d statistic. Although the transformed customer loyalty distribution cannot be said to be normally distributed, the skewness of the raw distribution was not extremely high at - 0.75. Thus customer loyalty was treated as untransformed throughout the analysis. See table 5.1 below



**Table 5.1 Descriptive stats of raw and untransformed model variables**

5.1	Valid N	Mean	Median	Minimum	Maximum	Std.Dev.	Skewness	K-S d statistic	p
Service Quality	104.00	2.31	2.00	1.00	5.36	1.06	0.86	0.15	>0.05
log Service qual	104.00	0.32	0.30	0.00	0.73	0.19	0.12	0.08	>.2
Customer Satisfaction	104.00	5.69	5.90	3.70	7.00	0.89	-0.52	0.11	<.2
log(8-cust sat)	104.00	0.76	0.74	0.00	1.46	0.39	-0.12	0.07	>.2
Customer Loyalty	104.00	6.05	6.25	3.63	7.00	0.82	-0.75	0.17	<0.01
log(8-cust loyalty)	104.00	0.58	0.56	0.00	1.48	0.41	0.17	0.15	<.05
2007 revenue	104.00	55280.06	42012.00	21583.00	406492.00	47005.08	4.93	0.24	<.01
log 2007 revenue1	104.00	10.75	10.65	9.98	12.92	0.52	1.25	0.09	>.2
2006 revenue	104.00	58247.72	48612.00	12348.00	339795.00	41265.17	3.74	0.20	<.01
log 2006 revenue1	104.00	10.82	10.79	9.42	12.74	0.53	0.44	0.08	>.2
2005 revenue	104.00	55400.70	46266.00	8556.00	290265.00	38161.76	3.42	0.20	<0.01
log 2005 revenue	104.00	10.77	10.74	9.05	12.58	0.54	0.15	0.09	>.2

### 5.5.2 Scale reliability

Cronbach's alpha was computed as a measure of the internal consistency reliability of each of the three scales. This is a commonly used test for scale reliability (Blaikie, 2003). Cronbach alpha's of 0.8, 0.67 and 0.69 were obtained for the service quality, customer satisfaction and customer scores respectively. The detailed item–total correlations are provided in appendix C.

### 5.6 Tests of Hypotheses

In order to test the hypotheses relating to the relationship between service quality and customer satisfaction, PEARSON's PRODUCT MOMENT correlation coefficients were computed between the service quality subscale mean score and the customer satisfaction subscale mean score. The subscales were used rather than the individual summative item (overall satisfaction) as the reliability of the sub-

scale is higher than that of an individual item. This correlation was supported by the corresponding bivariate scatterplot. In addition the correlations between the responses to each service quality item were correlated with the customer satisfaction sub-scale mean score.

### **5.6.1 The relationship between service quality and customer satisfaction - Hypothesis One**

The service quality sub-scale means as well as the underlying service quality item scores correlate significantly with the customer satisfaction sub-scale mean as measured by the transformed score. Service quality and its transformed score are correlated 0.59 and 0.58 respectively with the customer satisfaction transformed score. These correlations, as well as all their item correlations are significant at the 0.1% level of significance. See table 5.2 below.

**Table 5.2 Correlation between service quality sub-scale and item scores with customer satisfaction sub-scale scores**

Path	Measure	Customer Satisfaction	p
		log(8-cust sat)	
Service quality - Customer satisfaction	Service Quality sub-scale mean	0.59	<0.001
	log Service qual	0.58	<0.001
	4.1. The quality of most products I buy from ABI is good	-0.42	<0.001
	4.2. <b>ABI carries a large variety of products</b>	-0.48	<0.001
	4.3. The prices of most products I buy from ABI are reasonable	-0.58	<0.001
	4.4. I am satisfied with the 48 hours it takes ABI to deliver my order to me from the time of placement	-0.43	<0.001
	4.5. I am satisfied with the accuracy of my order	-0.52	<0.001
	4.6. Point of sale material to create awareness of products in store provided by ABI is good	-0.33	<0.001
	4.7. <b>ABI provide sufficient discounts to enable running of in store specials</b>	-0.53	<0.001
	4.8. Payment terms provided by ABI promote an increase of purchases from them	-0.58	<0.001
	4.9. <b>ABI perform better or equal to other similar suppliers</b>	-0.47	<0.001
4.10. My overall satisfaction with the attributes mentioned	-0.59	<0.001	

For interpretation purposes the scatter diagram shows correlation between service quality and customer satisfaction as untransformed scales are provided in Figure 5.9. This figure also provides the underlying histograms of the two scales. Note that the correlation of the raw scale scores is negative, and positive in the case of the transformed scales. The magnitude of the two correlations between the untransformed scales and the two transformed scales is however similar ( $r=-0.63$  and  $r=0.59$  respectively), both correlations significant at the 0.1% level. The null hypothesis 3.1 is rejected in favour of the alternative.

**Figure 5.9 Scatterplot for service quality vs. customer satisfaction**



### 5.6.2 The relationship between customer satisfaction and customer loyalty path – Hypothesis Two

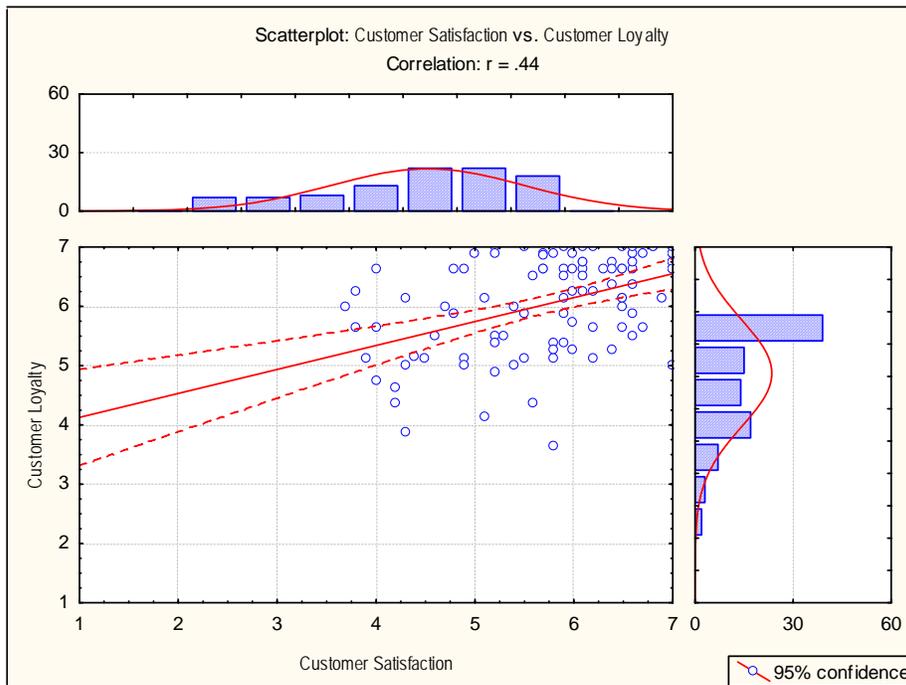
Customer satisfaction correlates 0.47 with customer loyalty. This correlation is significant at the 0.1% level. For interpretation purpose, the scatterplot of relation between the untransformed variable is presented in Figure 5.10 together with the underlying histograms of the two scales. The magnitude of the two correlations between the untransformed scales and the two transformed scales is again similar ( $r=-0.44$  and  $r=-0.47$  respectively), both correlations significant at 0.1% level. Accordingly the null hypothesis 3.2 is rejected in favour of the alternative.

Although the customer satisfaction and loyalty subscales are significantly negatively correlated not all the underlying customer satisfaction item scores are significantly correlated with customer loyalty. Of the eleven items, items 3.1, 3.3, 3.8 and 3.9 are not significantly correlated with customer loyalty. These correlations, as well as all their item correlations are significant at the 0.1% level of significance. See Table 5.3.

**Table 5.3 Correlations between customer satisfaction sub-scale and item scores with customer loyalty sub-scale mean scores**

Path	Measure	Customer Loyalty	p
Customer satisfaction - Customer loyalty	Customer Satisfaction sub-scale mean	0.47	<0.001
	log(8-cust sat)	-0.47	<0.001
	3.1. Number of times the Sales representative visits the shop	-0.17	>0.05
	3.2. Sales representative has a good relationship with me	-0.21	<0.05
	3.3. Delivery staff have a good relationship with me	-0.12	>0.05
	3.4. Sales representative helps me make the business earn more money	-0.31	<0.01
	3.5. Sales representative puts a lot of effort into resolving my problems quickly	-0.38	<0.001
	3.6. Delivery staff put a lot of effort into resolving my problems quickly	-0.27	<0.01
	3.7. Switchboard at the Distribution Centre answers my telephone calls quickly	-0.22	<0.05
	3.8. Information you receive about any delays in delivery	-0.13	>0.05
	3.9. Information you receive about any out of stock products	-0.20	>0.05
	3.10. Number of times the Management Team visit your shop	-0.28	<0.01
3.11. How satisfied are you with the service quality	-0.53	<0.001	

**Figure 5.10 Scatterplot for Customer Satisfaction vs. Customer Loyalty**



### 5.6.3 The relationship between customer loyalty and customer profitability –

#### Hypothesis Three

None of the correlations between the customer loyalty sub-scale mean and the untransformed and transformed revenues for 2005 to 2007 are significant at the 5% level. Similarly, none of the correlations between the customer loyalty items and the untransformed and transformed revenues for 2005 to 2007 are significant at the 5% level, see Table 5.4 below.

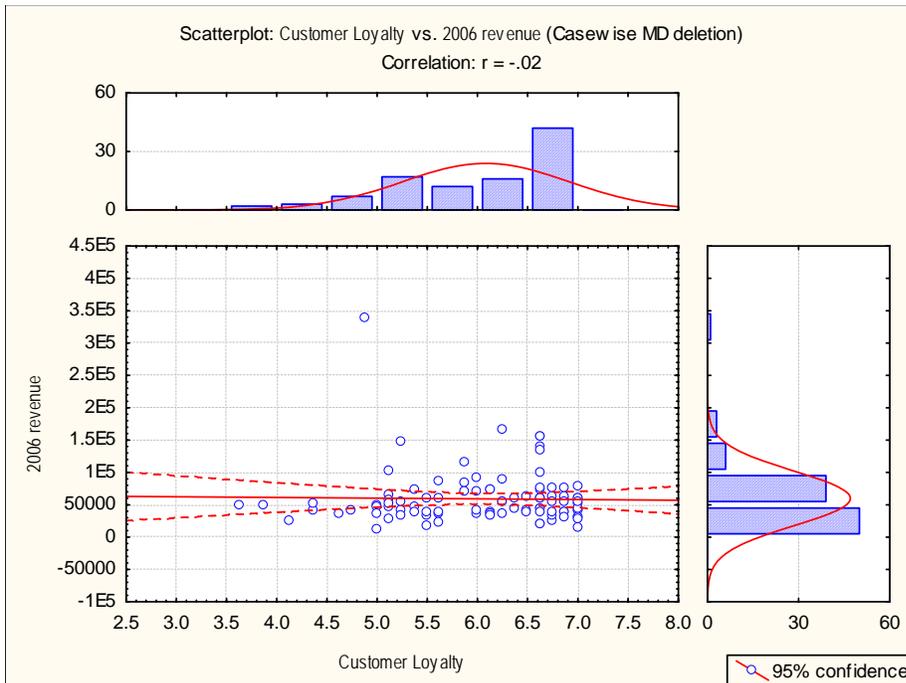
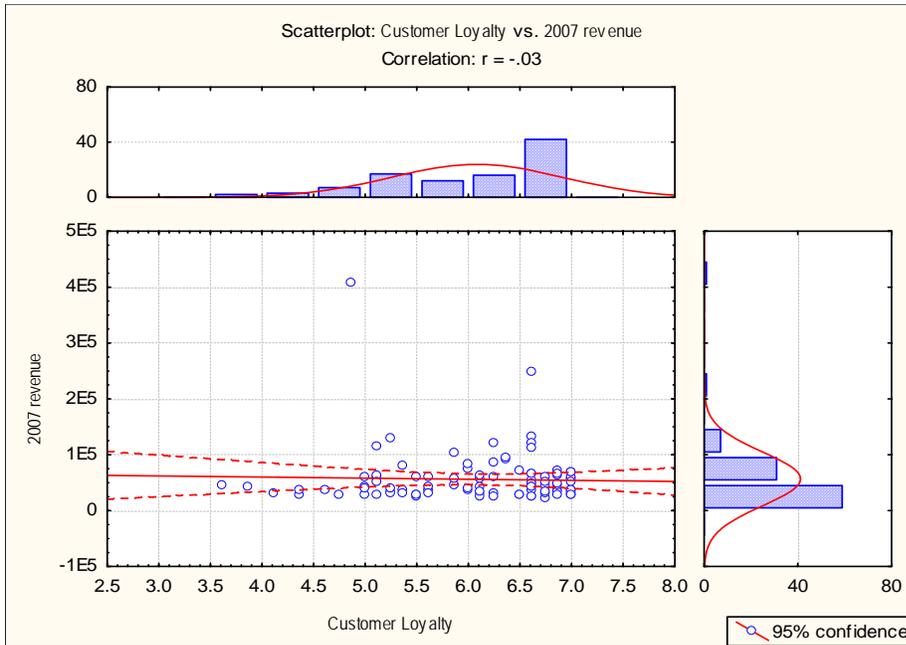
**Table 5.4 Correlation between customer loyalty sub-scale and item scores with customer profitability sub-scale mean scores**

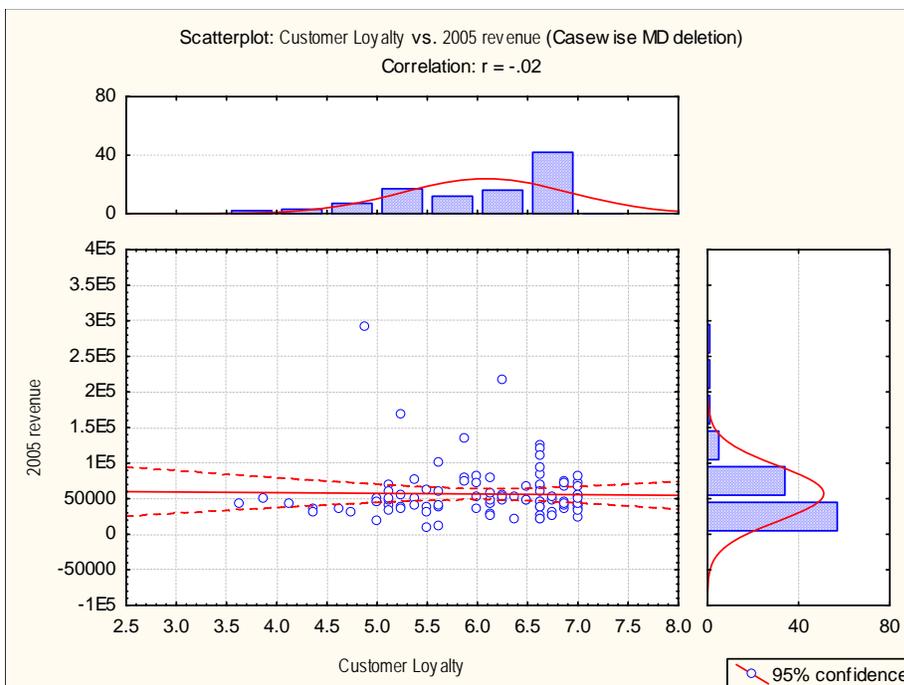
Path	Measure	2007 revenue	log 2007 revenue	2006 revenue	log 2006 revenue	2005 revenue	log 2006 revenue	p
Customer loyalty - Customer profitability	Customer Loyalty sub-scale mean	-0.03	0.04	-0.02	0.05	-0.02	0.06	all >0.05
	5.1. Staying in the relationship with ABI/Coke is a matter of necessity	-0.12	-0.05	-0.11	-0.07	-0.10	-0.06	all >0.05
	5.2. Ending our relationship with ABI/Coke would be a (serious) loss of profit or revenue for my shop	0.06	0.02	0.05	-0.01	0.04	-0.01	all >0.05
	5.3. My business or shop stays in its relationship with ABI/Coke because of the rewards and benefits	-0.01	0.15	0.01	0.12	0.00	0.08	all >0.05
	5.4. I buy only/mainly from ABI/Coke because they provide the best quality products and services	-0.07	-0.02	-0.04	0.00	0.07	0.18	all >0.05
	5.5. As a result of my positive relationship with ABI my purchases with them have increased over the last 3 years	0.02	-0.04	-0.01	-0.04	-0.07	-0.05	all >0.05
	5.6. I would recommend ABI as a company to deal with to other business owners	0.10	0.12	0.12	0.14	0.11	0.11	all >0.05
	5.7. I recommend ABI products to buyers/consumers ahead of other competitor products	0.06	0.07	0.07	0.06	0.05	0.04	all >0.05
	5.8. ABI staff have our best interests at heart	-0.16	-0.06	-0.14	-0.01	-0.14	0.00	all >0.05

The lack of relation between loyalty and revenue can also be seen from the scatter diagrams of customer loyalty vs. 2007, 2006 and 2005 revenue figures as presented in figures 5.11, 5.12 and 5.13 respectively. Thus null hypothesis 3.3 cannot be rejected.



Figure 5.11 to 5.13 Scatterplots for customer loyalty vs. customer profitability  
for revenue years 2005 - 2007

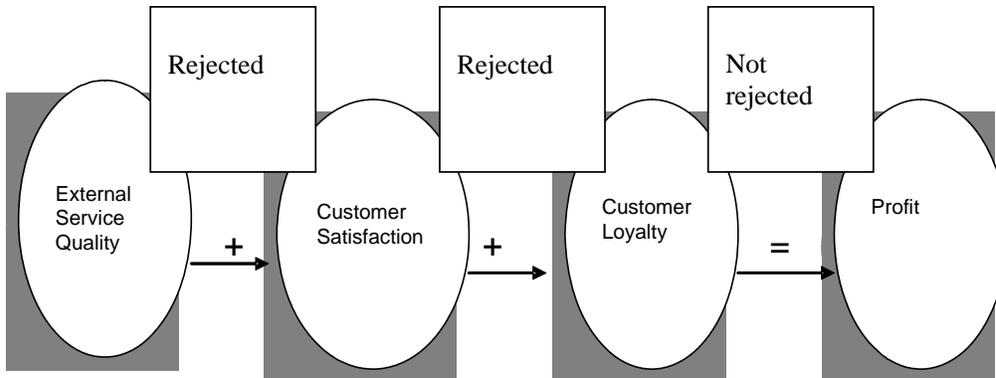




As loyalty scores were found to be uncorrelated with revenue, further analysis was undertaken in an attempt to find significant predictors of revenue. Furthermore, as there were a few outlying revenue scores, it was decided to form meaningful categories of revenue and to assign the outlets to these revenue categories (tier 1 = R0 to R49 999, tier 2 = R50 000 to R99 999 and tier 3 = R100 000 and above). Thereafter these categorised outlets were compared on every scale and item in the model via a one-way Analysis of Variance (ANOVA). The results of this analysis found that only one of all the sub-scales and underlying item means were significantly different between the groups. See appendix D.

A summary of the findings under the heading Tests of Hypotheses is presented , below in **figure 5.14**. This figure shows which relationships were rejected (relationship supported) and which were not rejected (relationship not supported).

**Figure 5.14 – Service-profitability summary – (Adapted from Johnson & Gustaffson 2000, p101)**



In this chapter all the results relevant to the study were presented. As set out in the introduction all the biographical and experience data was presented. This was followed by discussion on data transformation. Finally data relating to each of the three hypotheses was presented with the null hypotheses rejected for hypotheses one and two and not rejected for hypotheses three. The next chapter will go into a more detailed discussions of the results.

## 6 CHAPTER 6 – INTERPRETATION OF RESEARCH RESULTS

### 6.1 Research Hypotheses

This chapter analyses the results presented in Chapter Five. The interpretation of the results is facilitated by insights gained in the literature review. The objective of this analysis is to provide insight into the sample population and to elaborate on the acceptance or rejection of Hypotheses One to Three as presented in pter Five.

### 6.2 Descriptions of the sample

The sample population, as evident in figures 5.1 to 5.8, is highly qualified and appropriate for the survey. The majority (98%) of the respondents have experience of direct dealings with ABI. Figure 5.5 shows that at least 75% have more than 4 years length association with the outlet or shop that they are in. Another 70% of the respondents are in positions of high responsibility within the outlet. These positions are the following: manager, owner-manager and owner-partner.

The sample return of 104 out of 112 which is equivalent to 93% is also very high. This was achieved through the methodology selected which is one-on-one interviews. The combination of high rate of return, the high level of involvement in running the outlet and direct experience of dealing with ABI give the sample authenticity and adds credibility to the findings.

### 6.3 Hypothesis One (Service quality vs customer satisfaction)

Hypothesis one is the relationship between service quality and customer satisfaction. The null hypothesis states there is no relationship between these two constructs and the alternative hypothesis states that there is a relationship.

#### 6.3.1 Discussion of findings on Hypothesis One

It is stated earlier on in the literature review (Chapter Two) that the service quality variable is a key utility variable used to attract new customers, as well as to increase usage rates of existing customers (Allen and Rao, 2000). This variable forms the foundation of the link of the service-profit chain. In other words if it is not present it would be difficult or impossible to explore the presence of the other independent variables in the chain.

The literature review also highlighted that service quality is a function of the expectations-performance gap and this was first established in a study many years ago by Parasuraman *et al* (1985). Another key outcome of the study by Parasuraman *et al* (1985) and further studies by other authors (Allen and Rao, 2000) was that customers assess quality not just based on the outcome but also on the process associated with it.

The results in table 5.2 show that there is high correlation at  $r=0.63$  and  $r=0.59$  between service quality and customer satisfaction in their statistically

untransformed and transformed states. These results seem to support the literature in that the high correlations between service quality and customer satisfaction suggest that service quality can be relied upon as a utility variable to drive customer satisfaction. Secondly, a perusal of the item scores or results (see appendix E) for each of the attributes in the questionnaire on service quality reveal that for most of the items the expectations-performance gap is very narrow meaning that the expectations are being largely met.

The discussion will now focus on the second point made above after which a final point will be made in support of rejecting the null hypothesis in favour of the alternative.

The section in the questionnaire on service quality comprised 11 items (refer to appendix E). The last item, item number 11 was an overall assessment of the whole service quality construct and will be discussed individually. The response categories of the items of this section are such that “1” is an excellent rating and “7” is a poor rating. Items 3.1 (number of visits), 3.2 (good relationship with the Sales representative), 3.3 (good relationship with the Delivery staff) have the highest levels of rating at 71%, 81% and 67% respectively. Item 3.5 (effort the Sales Representative puts into resolving my problems) also rated very high at 64%. This means that for instance for 3.2, at least 81% of the 104 respondents said they were very satisfied with the relationship they had with the Sales Representative.

Equally though there are areas of concern. Items 3.7 (switchboard at the Distribution Centre (DC)), 3.8 (information on delays in delivery) and 3.10 (management team visits to the shop) performed poorly. The scores are 44%, 50% and 40% respectively. For these items a sizeable number of respondents did not rate their satisfaction as very high.

The most interesting finding is that despite the mixture of medium to high levels of satisfaction on most items (7 of the items scored above 50% showing very satisfied respondents) and low levels of satisfaction (3 of the items at or below 50%) the overall satisfaction with service quality was rated at a low 44%. This means only 44% of the respondents said they were very satisfied. However, it must be noted that a high 21% also rated overall satisfaction with service quality as still high. The question; is what does this mean for this construct?

A reference to the Storbacka *et al* (1994) customer-profitability model helps to answer the question. These authors point out that service quality is a function of perceived value against perceived sacrifice. The revelation here is that this can be explained by the market conditions in which these customers who are at the bottom of the pyramid customers find themselves in. They are not key account customers as per the definition offered by Millman and Wilson (1995) and therefore do not have formal strategic relationships with the supplier, e.g., sharing of intelligence using sophisticated computer systems and are not organised into buying groups. They also by definition do not engage in long-term planning with

the supplier. However, due to the latent potential present in this market (Pralalad and Hart, 2002) the supplier recognises the need to have a presence in this market.

The report by Pearson, Henning and Bodiba (2005) confirms the growth and potential revenue in this market. The market structure for these customers as buyers and the supplier as a seller shows that they are in a weaker position. The reality of the situation is also that the supplier ABI, the softdrinks division of SAB, has the widest reach and is one of few suppliers who make direct deliveries to the store level. This is extremely cost effective for the shop owner and very convenient. In conclusion therefore the perceived value is still higher than the perceived sacrifice hence the medium to high ratings on most of the items. The low overall rating and the other low scores, however, show that there is room for improvement.

The results on this variable show which lever to pull and where to improve the allocation of resources. The positive thing is that the results confirm that the service quality variable can be used to predict satisfaction. So an improvement on service quality can help predict levels of customer satisfaction. The findings align with what the literature review even for the bottom of the pyramid customers who service bottom of the pyramid consumers in a middle income country.

#### **6.4 Hypothesis Two (Customer satisfaction vs customer customer loyalty)**

Hypothesis two is the relationship between customer satisfaction and customer loyalty. The null hypothesis states there is no relationship between these two constructs and the alternative hypothesis states that there is a relationship.

##### **6.4.1 Discussion of findings on Hypothesis Two**

In the base model for this study (refer to figure 2.1, p12) customer satisfaction is shown as an outcome of good service quality. Essentially the literature says, "...satisfaction is largely influenced by the value of the services, provided to customers" (Heskett *et al*, 1994, p 165). In other words, where the service is designed and delivered to meet targeted customer needs it is likely to result in positive feeling by the customer. The feeling is an outcome of evaluation based on the personal experience across all service episodes by the customer (Storbacka *et al*, 1994). It stands to reason that it is a combination of episodes or experiences that brings about a feeling of satisfaction. But one bad episode or experience especially if it is recent can have the effect of distorting the results. Storbacka *et al* (1994) also point out that the evaluation is both cognitive and affective. It can be read into this that the evaluation is both objective and subjective.

In as much as service quality is the foundation and therefore a critical variable, customer satisfaction is equally important in that it translates in terms of both models (figures 2.1 and 2.2) to customer loyalty. The importance of customer satisfaction is its high diagnostic nature. In other words, good service quality can be delivered and the customer is in a position to say whether it is good or bad.

However, it is possible that a good quality service which is unwarranted can be delivered but because it is not needed or does not fit in with the needs of the customer, and therefore it does not result in customer satisfaction. This is clearly a paradox. The other paradox can be where the service-quality is rated low but the satisfaction is rated high. This may result in the quality-satisfaction gap. Hence a focus on this construct is important.

On a more practical level Storbacka *et al* (1994) point out that achieving high levels of satisfaction can help businesses lower the costs of doing business, increase retention and increase revenue.

The quantitative study results for hypothesis two show (see table 5.2, p76) that customer satisfaction correlates 0.47 with customer loyalty. This correlation is significant at the 0.1% level and implies that approximately 22% of the variance in customer loyalty is determined by customer satisfaction. But as per evidence present in Chapter Five not all the underlying customer satisfaction scores are significantly correlated with customer loyalty. Items 3.1 (quality of products from ABI is good), 3.3 (the prices of most products are reasonable), 3.8 (payment terms promote purchases) and 3.9 (ABI perform better than other suppliers) are not significantly correlated with customer loyalty. What follows now is a discussion on the findings of the individual item scores under customer satisfaction in the questionnaire. These findings will be compared against the correlation table referred to above.

The section with customer satisfaction questions in the questionnaire has 10 items (see appendix E). The last item is an overall rating of the attribute of customer satisfaction. The response categories of the scales in this section are the reverse of what is in the previous section (service quality). In this section “1” is a poor rating and “7” is an excellent rating. An analysis of this section of the questionnaire shows that the highest scores come from items, 3.2 (large variety of products), 3.4 (satisfied with 48 hours delivery) and 3.6 (point of sale) where the ratings are 61%, 60% and 65% respectively. The three lowest scores come from items 3.1 (quality of most products), 3.5 (accuracy of my order) and 3.7 (sufficient discounts) where the scores are 52%, 40% and 41% respectively. The lowest scores appear very poor and constitute an immediate area of improvement.

Storbacka *et al* (1994) say that customer satisfaction can be affected by two intervening factors, that is, customer commitment and existence of bonds. In business to business relationships the bonds could span a number of areas legal/economic, social bonds, knowledge bonds, etc,. These bonds can constitute effective exit barriers, that is, they can contribute towards retention even though the customer is not satisfied. In such cases the switching costs are often too high. On the other hand the authors highlight that commitment, which is about the parties' intentions to act and positive attitudes towards each other, can be equally deceiving. Some customers may show dissatisfaction but continue with the relationship. In terms of the model (figure 2.5, p19) by Jones and Sasser (1995)

they may be between the zone of defection and affection and this is referred to as the zone of indifference.

The effect of this on the findings is firstly that the items which are said not to be correlating (3.1, 3.3, 3.8 and 3.9) show some of the lowest scores with the exception of item 3.3. But these are not necessarily the lowest scores in the section. The explanation could be that the reason they do not correlate strongly with customer loyalty is because they are not seen or regarded as of critical importance to the customer. In other words high scores on these items do not necessarily mean there will be high customer loyalty. This in practice leads to latent dissatisfaction and decreases the ability to predict customer loyalty from customer satisfaction.

The items which have the lowest scores (3.1, 3.5, 3.7) are overshadowed by the ones which have high scores (3.3, 3.4, 3.6). It needs to be noted that 3.3 has a high score but also does not correlate significantly with customer loyalty. The reason why there is such a mixture of results is attributable to the switching costs caused by the existence of bonds. The context for this study is business to business relationships. The product (softdrinks) which is the basis of exchange is what is referred to as a Key Value Item (KVI). Most of these types of outlets would not survive if they did not sell this item in their shop. Secondly, there is also a legal contract of service between the two parties. The refrigeration item is a key tool for doing business and can also function as a lock-in mechanism. Thirdly, as already

mentioned ABI has the widest reach and of course a large variety of products. Having said that, this is a very competitive market (Henning, Pearson and Bodiba, 2005) if you consider the total beverage market and not just carbonated soft drinks which is clearly dominated by ABI. However, because these customers are at the bottom of the pyramid and they service bottom of the economic pyramid consumers they can do little to alter the relationship.

The key question which is not answered sufficiently by the research is, as a result of the customer satisfaction variable being positive or correlating with customer loyalty, *albeit* with lower correlations than the first one, has the cost of doing business decreased and as a result has there been customer retention and higher customer revenue?

In conclusion though the value of customer satisfaction as a predictor is not lost despite the low correlation level. As a result the null hypothesis is rejected in favour of the alternative.

### **6.5 Hypothesis Three (Customer loyalty vs customer profitability)**

Hypothesis three is the relationship between customer loyalty and customer profitability. The null hypothesis states there is no relationship between these two constructs and the alternative hypothesis states that there is a relationship.

### **6.5.1 Discussion of findings on Hypothesis Three**

The link between customer loyalty and customer profitability is the final link in the service profit chain. The independent variable of customer loyalty leads to the only dependent variable customer profitability. These variables, all four of them in the service profit chain, form a chain and have a cause and effect relationship (Johnson and Gustaffson, 2000).

Johnson and Gustaffson (2000) make the point that loyalty measures properly constructed become a proxy for future profitability. In other words it is positive customer loyalty which creates the link to the bottom line. It is important to make the point here again that this study is mainly concerned with loyalty as a behaviour rather than as an attitude. The importance of this is that loyalty as a behaviour is practical, measurable and should be visible through increased margins as a result of increased purchases. It follows therefore that a critical element of loyalty is retention of customers. This provides the only means to measure revenues over the lifetime of the relationship with the customer (Allen and Rao, 2000).

Allen and Rao (2000) argue that the importance of measurement of how customer loyalty translates to customer profitability is always self-centered. They argue that businesses measure and track this link because of obvious tangible benefits to them. Kaplan and Narayanan (2001) whilst driving the same message, put it differently. Their contribution is that no company or business envisions a lifetime of

unprofitable relationships with a customer. The objective of most businesses is to drive customer profitability over the length of the relationship.

Storbacka *et al* (1994) point out that relationship longevity or retention can result from two factors. There are relationship extrinsic factors such as market structure and possible geographical limitations and there are also relationship intrinsic factors such as the handling of customer experiences during the relationship by the supplier. It goes without saying that the more desirable factors are relationship intrinsic factors as they are more sustainable. If the relationship is based on these factors it is possible that it will be longer lasting and the relationship costs will be outweighed by the revenue.

The data collection tool in section 3 (see appendix E) has all the questions on loyalty. A total of eight items were included in order to measure loyalty. However, there is no customer profitability section in the data collection tool. The customer profitability variable was operationalised through relying on objective secondary data obtained from ABI's internal computer package system called Margin Minder. Before an interpretation of the results is presented it is important to first look broadly at the items' scores for the attributes under customer loyalty. The scale works in the same way as the customer satisfaction scale.

The customer loyalty items with the highest scores are 4.1 (staying in the relationship), 4.2 (ending the relationship) and 4.6 (recommend ABI). The scores

on these items were 68%, 70% and 77% respectively; very high indeed. On the other hand the items with the three lowest scores are 4.3 (rewards and benefits), 4.5 (increase in purchases) and 4.8 (best interests at heart). The scores on these items are 41%, 44% and 57% respectively. However, overall it can be concluded that the respondents have a strong feeling of loyalty. The most positive score is item 4.6 which shows that they would recommend ABI to other business owners. What is of concern though is items 4.3 and 4.5 where respondents have disputed that they are in the relationship because of the rewards and benefits and that as a result of the positive relationship with ABI their purchases have increased over the last three years respectively.

Items 4.3 and 4.5 provide a useful insight to the results from the quantitative data. The results in table 5.4 show that none of the correlations between the customer loyalty sub-scale mean and the untransformed and transformed revenues for years 2005 to 2007 are significant at the 5% level. This lack of relationship is also evident from the scatter diagrams, see figures 5.11 to 5.13. Even after further analysis, the results still show no evidence of customer loyalty as a predictor of profitability. This in effect means that even though the null hypothesis for hypotheses one and two were rejected the same cannot not be said for hypothesis three. In this particular instance the null hypothesis cannot be rejected. This means that there is no link between customer loyalty and profitability in the business to business relationship between a supplier and a customer who is at the

bottom of the customer pyramid in a developing country. This finding is key for the research question stated in Chapter One.

The research question in Chapter One is, “Would the service-profit chain constructs equally apply with all sets of customers, and in particular would it apply with customers who in terms of the customer segmentation model would be at the bottom of the customer pyramid and operating largely in a market with consumers at the bottom of the economic pyramid in a middle income country?”. In other words, is it true that, “Service quality leads to increased satisfaction, which in turn makes customers more loyal, and that you get more profit from loyal customers than from those who don’t care where they get the product or service?”. As a result of the findings this question is not answered in the positive. The results for the last hypothesis call into question the service-profit chain for bottom of the pyramid customers who service bottom of the economic pyramid consumers in a middle income country. However, the research objectives set out in Chapter One and three have been met. They have been met in that the empirical test as set out in Chapters One and Three has been conducted as promised.

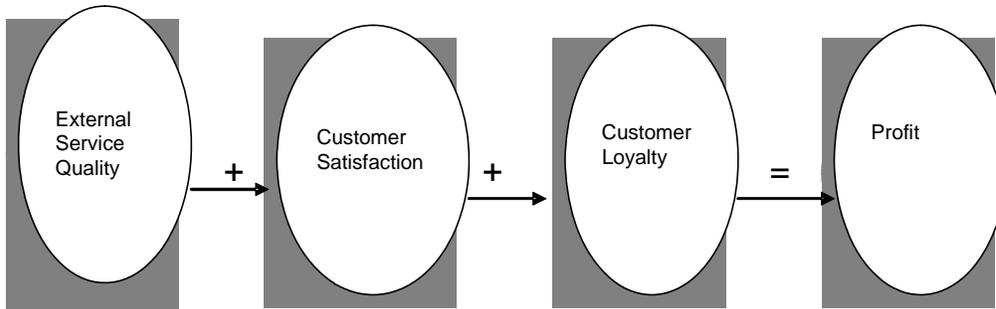
## 7 CHAPTER 7 – CONCLUSION

This chapter will conclude based on the findings against each of the relationships or hypotheses suggested by the service-profit chain as depicted in figure 5.14. Recommendations will be made to business managers based on the findings and literature review. A possible model to be used by business managers operating in the market and context described in this study will be proposed by the author. Finally ideas for future research will be suggested.

### 7.1 Conclusion

Heskett *et al* (1994; 2003) and Storbacka *et al* (1994) through the service-profit chain model offer a useful tool to businesses to use in order to drive and manage customer profitability to the supplier business over the customer lifetime value. The model is as follows: external service quality leads to customer satisfaction, which in turn leads to customer loyalty and then finally to profitability. See figure 6.1 below for a summarised version of the model.

**Figure 7.1 – Service-profitability summary – (Adapted from Johnson & Gustaffson, 2000, p101).**



Although Heskett (2002) emphasises that this is the *sine qua non* of doing business and therefore is an effective business strategy, it is important to note that its application cannot be taken for granted. The purpose of this study is to take the model and apply it in a different context, in that its application is to the bottom of the pyramid customers who service bottom of the pyramid consumers in a middle income country. Another key area of difference in the study is the nature of the relationship which is under test. The relationship is a business to business relationship between the supplier business and the business or outlet.

The customers are bottom of the pyramid because they are not in a key account relationship with the supplier and in terms of segmentation based on volume and potential size of the outlet they belong to the bottom of the pyramid. In terms of the customer segmentation model these customers do not form part of the 80:20 segmentation. In other words they are not the 20% that generate 80% of the

volume or revenue. These customers also lack buying or bargaining power and hence the relationship with the supplier business is asymmetrical. The obvious implications for this group of customers is that they are not an obvious target for businesses to invest with them despite the potential growth opportunity. Furthermore because of the lack of power or a power base they are unable to exercise much influence over their future, they rely on the goodness of the suppliers. Implications for the service profit chain is that they are likely to be more accommodating and not strongly voice their concerns. They are in danger of sitting in the zone of indifference.

The consumers are bottom of the economic pyramid because they are based in an area which is a low income area and have similar challenges with bottom of the pyramid consumers which revolve around meeting basic needs such as shelter food and fuel. Although some of them live in an established physical structure, i.e. house, in some areas of the Alexandra township there are still challenges with a lack of running water, electricity and working toilets. As a result of the government grants some of them are climbing the economic ladder and are sometimes referred to as the emerging middle class, but they are still do not have access to cultural goods (Sachs, 2005) which is a key determinant of ascension to the next level of the pyramid.

The main findings of the empirical study can be summarised as follows. Two of the three research hypotheses (hypotheses one and two) were rejected and one (hypothesis three) was not rejected indicating that:

- There is a link between service quality and customer satisfaction in the business to business relationship between a supplier and a customer who is at the bottom of the customer pyramid and services bottom of the economic pyramid consumers in a middle income country.
- There is a link between customer satisfaction and customer loyalty in the business to business relationship between a supplier and a customer who is at the bottom of the customer pyramid and services bottom of the economic pyramid consumers in a middle income country.
- There is no link between customer loyalty and profitability in the business to business (B2B) relationship between a supplier and a customer who is at the bottom of the customer pyramid and services bottom of the economic pyramid consumers in a middle income country.

If the last point above is indeed as the results indicate, then the final conclusion is that the service-profit chain model does not apply in its entirety to this segment of the market within the defined scope of this study. The data did not show that the most satisfied customers, loyal customers are the most profitable, nor did it show that the most disloyal, unsatisfied customers are the most unprofitable. The link between service quality and customer satisfaction was positive, as was the link between customer satisfaction and customer loyalty. However the value of

customer loyalty as a predictor of revenue or profitability is absent. In essence business managers and other key role players who operate in this market can use the service quality variable as a utility variable to increase customer satisfaction. They can also as a result of satisfaction look to pull certain levers to drive loyalty. But they cannot guarantee that as a result of increased loyalty there will be increased profitability or that as a result of lack of loyalty there will be a decrease in profitability. Herein lies the challenge which goes to the heart of the research question in Chapter One.

The causes of this outcome can be many. The perceived value when compared with perceived sacrifice can cause the service quality variable to have a positive outcome and correlate with customer satisfaction. The existence of bonds, especially legal and economic bonds, can also promote a situation or feeling of satisfaction and commitment. The overall experience and power of the Coca-Cola brand in this instance can cause loyalty, but when all is done and considered there is no real profit that accrues to the supplier business as a result of loyalty. This could be mainly because of the failure of the supplier business to understand the customer economics behind their business model. In other words they are unable to extract value for themselves to gain from the positive service quality, customer satisfaction and customer loyalty. There is possibly no programme to grow purchases of loyal customers and improve purchases of low loyalty customers. This latter group of customers are clearly receiving far more value than they should

and would expect, but are still not profitable. This will be elaborated on in the model presented in 7.3.

## 7.2 Recommendations

These recommendations are directed at mainly business managers and operators in the field, whether in MNCs or small and medium enterprises, and all those involved in servicing bottom of the pyramid customers who operate with bottom of the economic pyramid consumers in developing or middle income countries.

- The service profit chain suggests certain propositions (service quality, satisfaction and loyalty) as inputs in order to get the required output, i.e. profitability. For this to work in the context described in this study, bottom of the pyramid, there is a need to conduct an importance performance gap analysis. It is recommended therefore that businesses prior to investing in this market must first seek to do a thorough analysis on what is important to customers in this market as well as how they are performing against those measures. This should help them understand the DNA of these customers which is different because of the market they serve and their placement on the customer pyramid.
- The initiatives that then follow the importance performance gap analysis must be fully priced and the allocation of costs should be possible. This principle should apply to even customers at the top of the pyramid. However, the relevance of the principle here is given weight by the findings

which suggest that there is no relationship between loyalty and profitability and the need to be more careful. So if the feedback from diagnostic tools reveals that the particular service quality improvement or initiative aimed at increasing satisfaction and loyalty is not working either because the costs are not recoverable or it is not finding resonance with the target group, it should be abandoned.

- All the initiatives should have as a key outcome the prolonging of the customer lifetime value otherwise they must be discarded. The literature sheds light on the importance of keeping existing customers instead of trying to recruit new ones and then managing the attrition rate. It is only through retention that margin growth is possible.
- In order for the constructs to provide good predictive value and help in the allocation of resources there should be a regular survey done to check if they are still relevant. There may be a need to build capability with front line sales and distribution staff or invest in systems aimed at collecting market intelligence. Most businesses have opportunities for information sharing with key account customers even to the extent of sharing information systems platforms. A more appropriate recommendation for this market, because of information technology challenges, would be to set up chat sessions and relationship building sessions and use them for this business.
- Where the outcome of the evaluation based on service-profit chain shows that there are customers who are not profitable measures should first be put in place to get them to profitability failing which they must be discarded. An

obvious way to get them to profitability will be to set up business management skills courses to impart the necessary knowledge and the initiative could be self-funding by putting them on a sales growth incentive. Alternatively customer programmes such as, frequency of distribution deliveries or face to face meetings with the Sales representative could be reduced for the unprofitable customers. In other words there must be tailored service packages aligned to the revenue they generate..

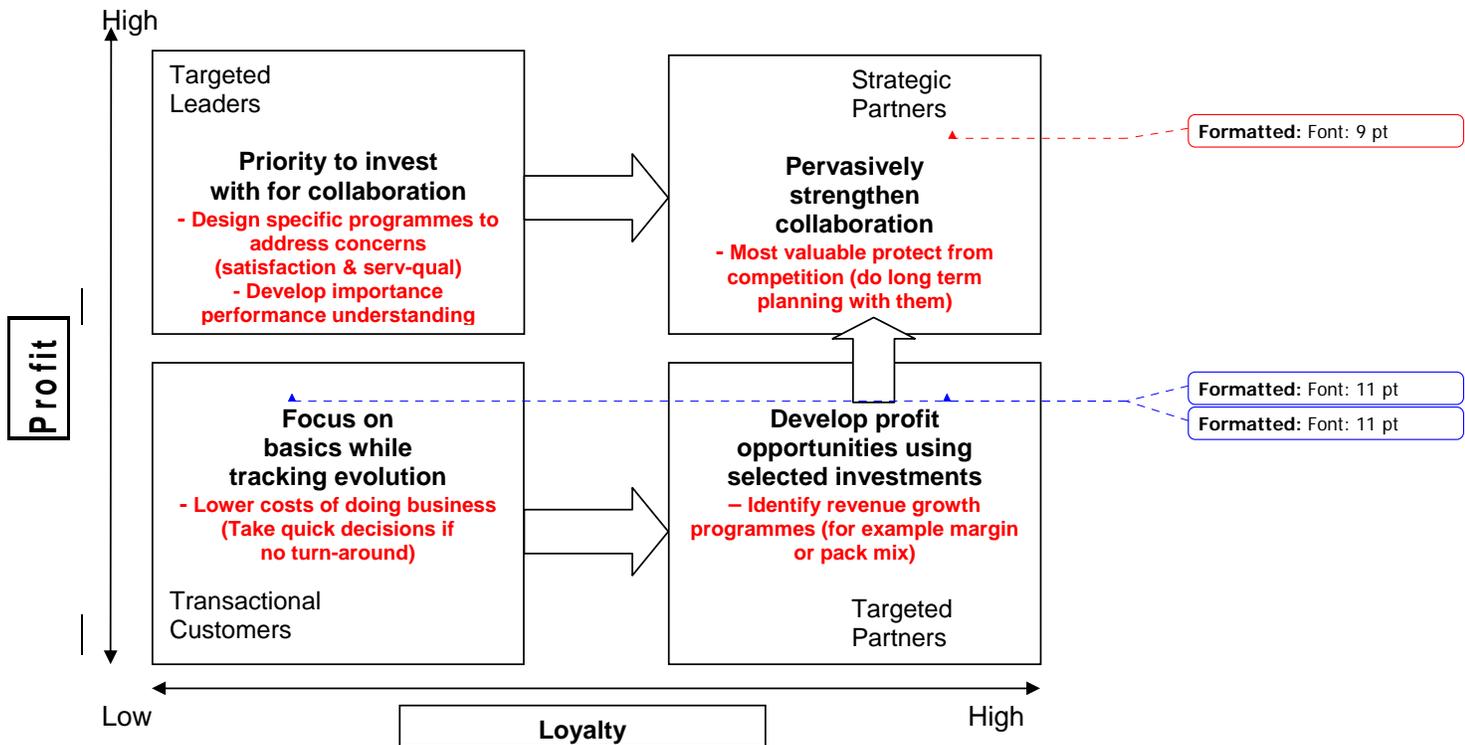
### **7.3 Possible model of collaboration to increase loyalty and profit**

The findings pertaining to this study have guided the development of this model by the author. The study showed that there is no correlation between customer loyalty and customer profitability for the bottom of the pyramid customers servicing bottom of the pyramid consumers in a middle income country. This may relate to a lack of programmes aimed at increasing profitability for the profitable customers as well as lack of programmes aimed at increasing profitability amongst already loyal customers. Finally, there may also be a lack of criteria to discard those customers, who after receiving attention, remain unprofitable.

The key challenge facing business managers, in particular, and operators in general, is how to engage and collaborate with the bottom of the pyramid customers in business to business relationships because of their strategic location within the bottom of the economic pyramid consumers, where there is latent

purchasing power waiting to be tapped? The problem thus far has been that there is a uniform approach to dealing with them and a lack of insight of how to segment for profitability within this group. Unlike key accounts where an approach is established by key account group driven by a number of factors, no such approach exists for non key account customers. As a group they normally provide good revenue and grow at higher levels of growth than the national or key account customers but such growth can be elusive if not weighed against the costs of doing business with them. Prahalad and Hart (2002) implore businesses to use different metrics and models for this market. See figure 7.2 below a 2x2 matrix of engagement or collaboration.

**Figure 7.2 – Profit and Loyalty matrix – Developed by the author of this paper**



The ultimate goal should be to get all customers to high loyalty and high profit but this is a process and not an event. The biggest concern is obviously those who are not profitable and not loyal, but they can be dealt with using a different business model, e.g., lowering distribution costs or maintenance costs. Second is the low profit but high loyalty group of customers who need revenue growth management programmes. Then there is the high profit low loyalty group. Businesses should endeavour to keep these customers. They require a detailed plan to increase service quality and satisfaction. A very structured process should be followed to find out their importance-performance priority and scores. This is a process to check what is important to them and how is the supplier performing on that score. This is possibly where the misalignment could be. Finally there is the high profit high loyalty group which should be looked after at all costs. The irony is that these customers are possibly the cheapest to serve relative to the profits they generate.

#### **7.4 Future research ideas**

The future research ideas are based on a combination of research limitations of this particular study and some of the insights gained from the literature review and findings. The following research ideas can be pursued:

- The same study could be done but the sample population could be extended beyond ABI/SAB customers into other suppliers' customers. Furthermore this study could be done in other provinces in South Africa and not just Gauteng province.



- An empirical test could be conducted using the same model but with top of the pyramid customers who service top of the pyramid consumers but still within a middle income country
- One of the key limitations in this area of research is the lack of ability to allocate costs in order to truly understand the relationship revenue over relationship costs formula. So a study on allocation of costs to determine customer profitability could be very insightful
- A study could also be done on the concept of customer lifetime value. The study could aim to understand how to measure and improve the customer lifetime value within a certain industry and context.



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## 9. APPENDICES

### Appendix A – Survey Questionnaire – Service-Profit Chain

#### 1. INTRODUCTION

Good morning/afternoon/evening. My name is,....., I'm a marketing student at Wits University. I'm here on behalf of the Gordon Institute of Business Science (GIBS). We are conducting a survey amongst customers (see APPENDIX "A") of ABI/Coke in order to establish levels of service quality; customer satisfaction and customer loyalty. I would be grateful if you could answer a few questions for us. I require you to complete a short questionnaire. We will not need more than 20-30 minutes of your time. Is now a convenient time to discuss this with you?

#### 2. EXPLANATION OF SCALES

Before we begin with the process I would like to explain to you how the scales or ratings will work. I've also brought with me a copy of the explanation which you can refer to during the course of the process – use APPENDIX "A". (This will differ for each question or section but the explanations page has all of them.)



**3. BIOGRAPHICAL DATA**

3.1. What is your name? \_\_\_\_\_

3.2. What is the name of your business? \_\_\_\_\_

3.3. What is your 

Male	Female
------	--------

 gender?

3.4. What is your age? 

18-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55+ yrs
-----------	-----------	-----------	-----------	---------

3.5. What is your home language?

English	Afrikaans	IsiZulu	IsiXhosa	SeSotho
---------	-----------	---------	----------	---------

3.6. What is your race?

African	Indian	Coloured	White	Other
---------	--------	----------	-------	-------

**4. EXPERIENCE DATA**

4.1. Is this your shop? 

Yes	No
-----	----

4.2. What is your role in the shop?

Owner/ Partner	Owner & Manager	Manager	Supervisor	Staff
----------------	-----------------	---------	------------	-------

4.3. How long have you owned the shop or been working in it?

0-3 yrs	4-6 yrs	7-9 yrs	10-12 yrs	More than 12 yrs
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4.4. Do you deal with ABI staff directly? (Sales rep and Delivery staff) 

Yes	No
-----	----



## 5. SERVICE QUALITY

- **Interviewer:** If the respondent replies “Don’t know” or refuses to respond to the question, leave it blank.

**Interviewer Instruction:** I would like you to rate the quality of service that you receive from ABI staff, where “1” is an excellent rating and “7” is poor. We would appreciate your honest opinion.

5.1. The number of times the **Sales representative** visits the shop?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.2. The Sales representative has a **good relationship** with me?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.3. The Delivery staff have a **good relationship** with me?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.4. The Sales representative **helps me make the business earn more money**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.5. The Sales representative puts a lot of effort into **resolving my problems quickly**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.6. The Delivery staff put a lot of effort into **resolving my problems quickly**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.7. The switchboard at the Distribution Centre **answers my telephone calls quickly**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.8. The **information** you receive about any **delays in delivery**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.9. The **information** you receive about any **out of stock products**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.10. The number of times the **Management Team** visit your shop?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------

5.11. **Overall** considering all of these issues/features how **satisfied** are you with the **service quality**?

1. Very satisfied	2	3	4	5	6	7. Very dissatisfied
-------------------	---	---	---	---	---	----------------------



**6. SATISFACTION**

- **Interviewer:** If the respondent replies “Don’t know” or refuses to respond to the question, leave it blank.

**Interviewer Instruction:** Now I would like you to rate the levels of agreement with the following statements where “1” is a poor rating and “7” is excellent. We would appreciate your honest opinion.

6.1. The **quality** of most products I buy from ABI is good?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.2. ABI carries a large **variety of products**?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.3. The **prices** of most products I buy from ABI are reasonable?

1. Very satisfied	2	3	4	5	6	7. Strongly agree
-------------------	---	---	---	---	---	-------------------

6.4. I am satisfied with the 48 hours it takes ABI to **deliver** my order to me from the time of placement?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.5. I am satisfied with the **accuracy** of my order?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.6. The **point of sale material** (posters) to create awareness of products in store provided by ABI is good?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.7. ABI provide sufficient **discounts** to enable running of in store specials?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.8. The **payment terms** provided by ABI promote an increase of purchases from them?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------



6.9. ABI **perform better or equal** to other similar suppliers (best in class)?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

6.10. Considering all of your **experiences** to date with ABI, please rate your **overall satisfaction** with the attributes mentioned above?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------



## 7. LOYALTY

- **Interviewer: If the respondent replies “Don’t know” or refuses to respond to the question, leave it blank.**

**Interviewer Instruction: Now I would like you to rate the levels of commitment or loyalty that you have towards ABI and its staff (both Sales and Distribution), where “1” is a poor rating and “7” is excellent. Once again, we appreciate your honest opinion.**

7.1. For my shop, staying in the **relationship** with ABI/Coke is a matter **of necessity**?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

7.2. If we ended our **relationship** with ABI/Coke, it would result in a (serious) **loss of profit or revenue for my shop**?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

7.3. My business or shop stays in its **relationship** with ABI/Coke because of the **rewards and benefits it brings us**?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

7.4. I **buy only/mainly** from ABI/Coke because they provide the **best quality products and services** (sales rep and distribution)?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

7.5. As a result of my **positive relationship** with ABI my purchases with them have increased over the last 3 years?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
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7.6. I would **recommend** ABI as a company to deal with to other **business owners**?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

7.7. I do **recommend ABI products** to buyers/consumers ahead of other **competitor products**?

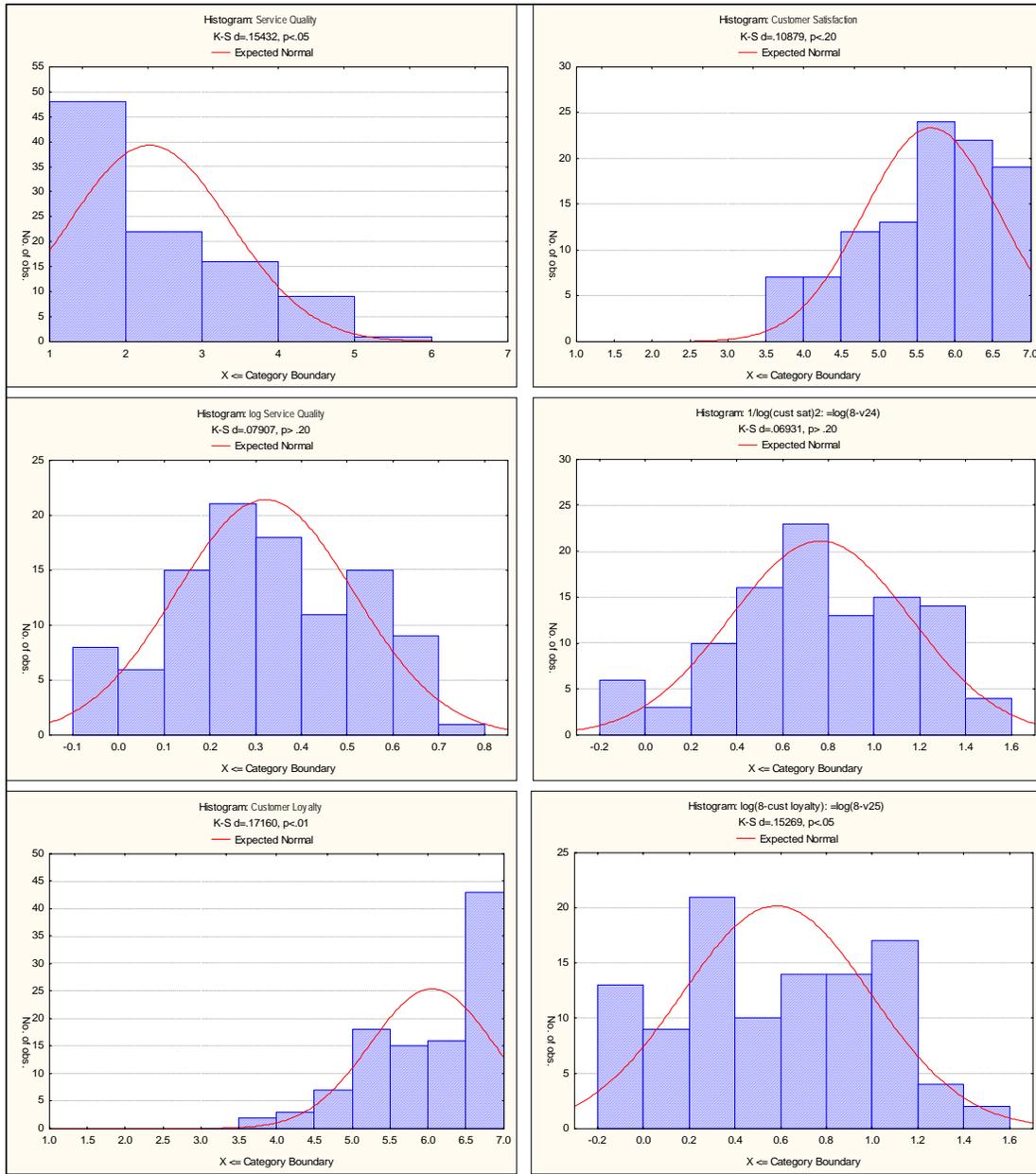
1. Strongly disagree	2	3	4	5	6	7. Strongly agree
----------------------	---	---	---	---	---	-------------------

7.8. ABI staff have our **best interests at heart**?

1. Strongly disagree	2	3	4	5	6	7. Strongly agree
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## Appendix B – Histograms of service quality and customer satisfaction





## Appendix C – Cronbach Alphas - correlations

<b>Cronbach alpha: .80</b>	Mean if deleted	Var. if deleted	Stdv. if deleted	Item-Totl Correlation	Alpha if deleted
3.1. Number of times the Sales representative visits the shop	23.94	128.21	11.32	0.35	0.80
3.2. Sales representative has a good relationship with me	24.24	130.72	11.43	0.43	0.80
3.3. Delivery staff have a good relationship with me	23.54	117.45	10.84	0.50	0.78
3.4. Sales representative helps me make the business earn more money	23.16	116.57	10.80	0.52	0.78
3.5. Sales representative puts a lot of effort into resolving my problems quickly	23.48	114.59	10.70	0.59	0.78
3.6. Delivery staff put a lot of effort into resolving my problems quickly	23.20	115.65	10.75	0.52	0.78
3.7. Switchboard at the Distribution Centre answers my telephone calls quickly	22.96	119.83	10.95	0.43	0.79
3.8. Information you receive about any delays in delivery	22.80	110.03	10.49	0.53	0.78
3.9. Information you receive about any out of stock products	23.12	118.64	10.89	0.38	0.80
3.10. Number of times the Management Team visit your shop	22.35	120.42	10.97	0.31	0.81
3.11. How satisfied are you with the service quality	23.13	113.19	10.64	0.64	0.77
<b>Cronbach alpha: .67</b>					
4.1. The quality of most products I buy from ABI is good	51.24	69.05	8.31	0.27	0.65
4.2. ABI carries a large variety of products	50.80	70.40	8.39	0.39	0.64
4.3. The prices of most products I buy from ABI are reasonable	51.44	61.48	7.84	0.42	0.62
4.4. I am satisfied with the 48 hours it takes ABI to deliver my order to me from the time of placement	51.00	68.78	8.29	0.28	0.65
4.5. I am satisfied with the accuracy of my order	52.01	63.33	7.96	0.33	0.64
4.6. Point of sale material to create awareness of products in store provided by ABI is good	51.04	72.31	8.50	0.14	0.67
4.7. ABI provide sufficient discounts to enable running of in store specials	52.40	63.33	7.96	0.26	0.66
4.8. Payment terms provided by ABI promote an increase of purchases from them	51.79	61.11	7.82	0.43	0.62
4.9. ABI perform better or equal to other similar suppliers	51.20	67.66	8.23	0.34	0.64
4.10. My overall satisfaction with the attributes mentioned	51.19	65.00	8.06	0.52	0.61
<b>Cronbach alpha: .69</b>					
5.1. Staying in the relationship with ABI/Coke is a matter of necessity	42.31	35.87	5.99	0.30	0.68
5.2. Ending our relationship with ABI/Coke would be a (serious) loss of profit or revenue for my shop	42.16	37.53	6.13	0.26	0.69
5.3. My business or shop stays in its relationship with ABI/Coke because of the rewards and benefits	43.26	27.77	5.27	0.57	0.61
5.4. I buy only/mainly from ABI/Coke because they provide the best quality products and services	42.25	36.23	6.02	0.37	0.67
5.5. As a result of my positive relationship with ABI my purchases with them have increased over the last 3 year	42.75	37.97	6.16	0.16	0.71
5.6. I would recommend ABI as a company to deal with to other business owners	42.02	35.03	5.92	0.52	0.64
5.7. I recommend ABI products to buyers/consumers ahead of other competitor products	42.39	34.66	5.89	0.39	0.66
5.8. ABI staff have our best interests at heart	42.45	31.12	5.58	0.55	0.62

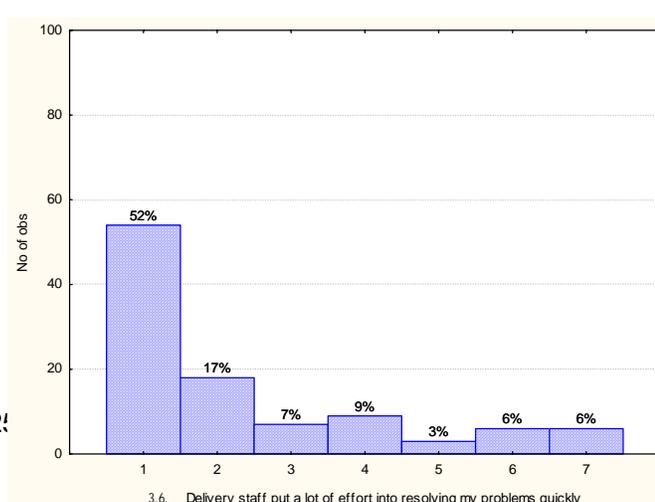
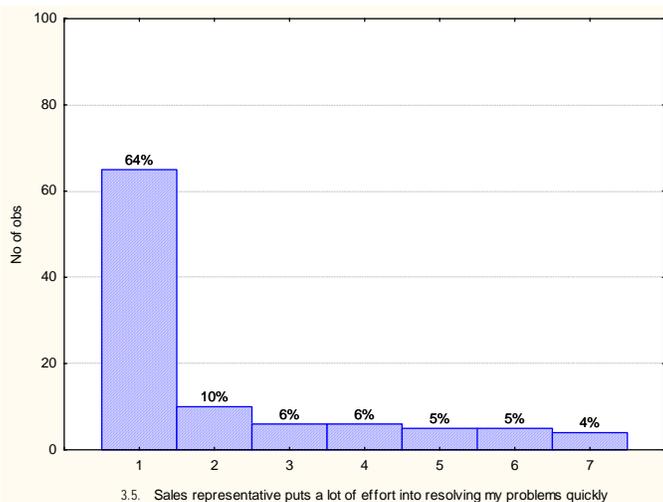
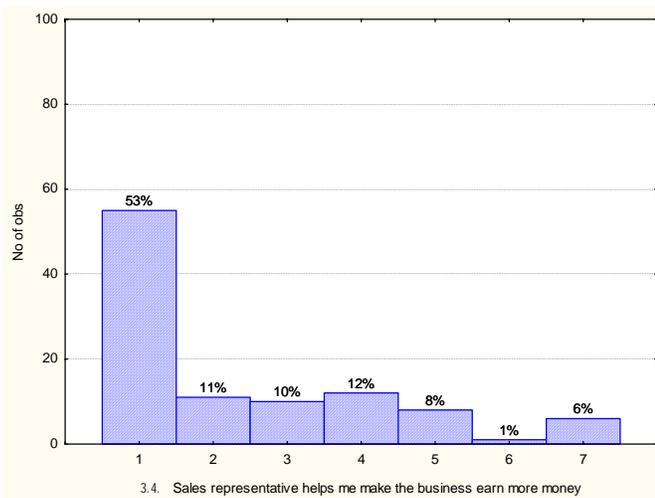
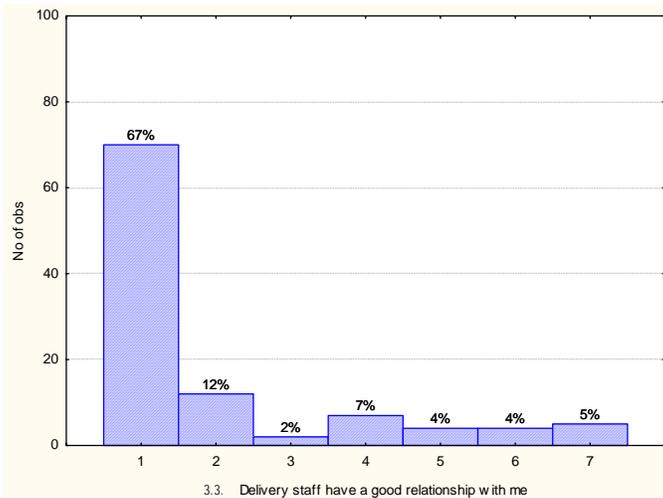
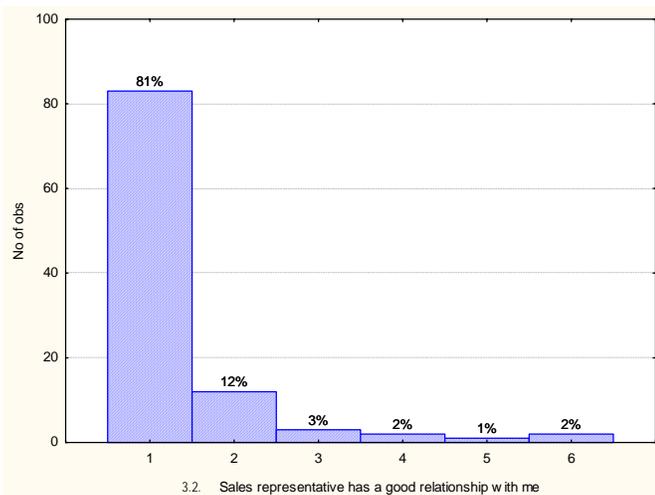
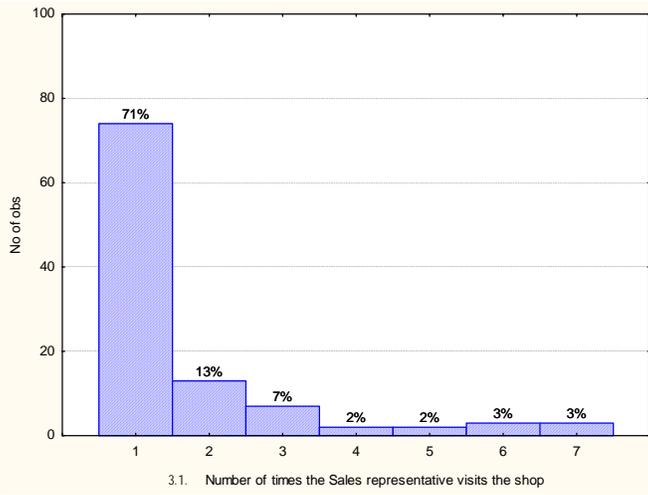


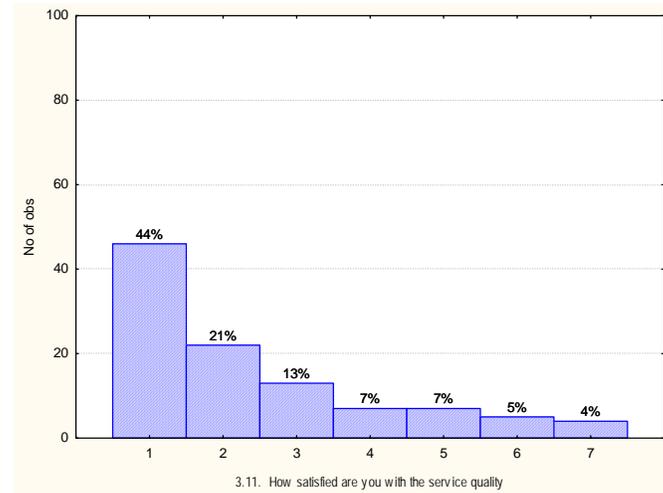
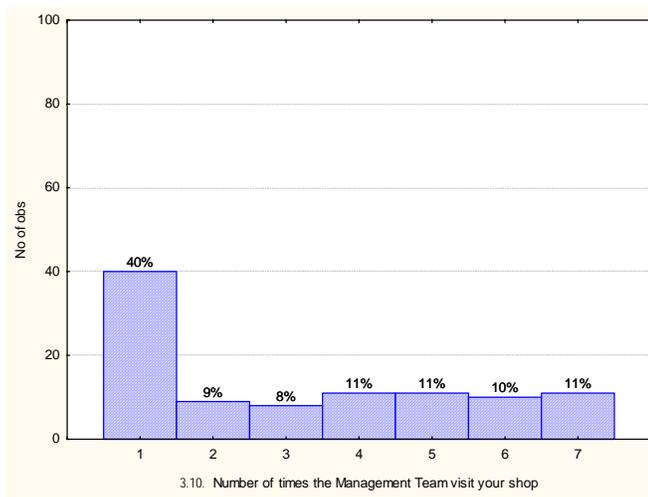
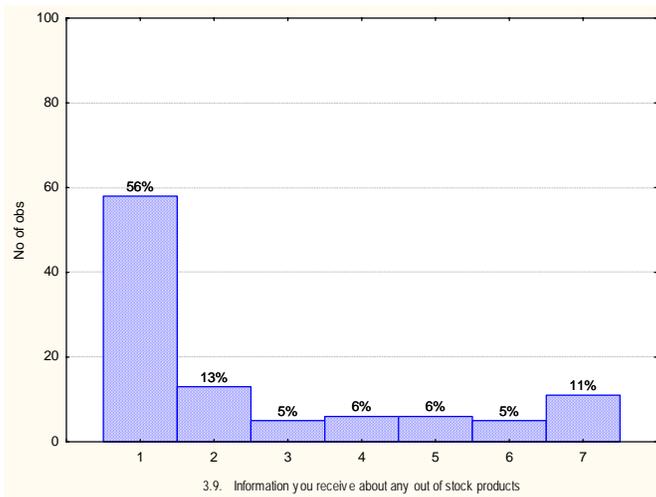
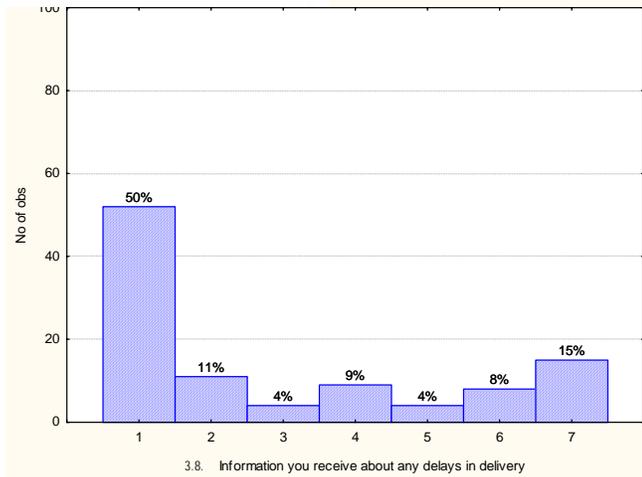
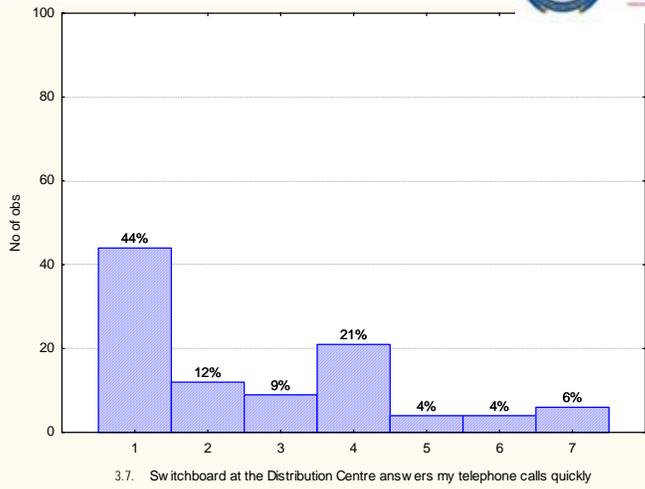
Appendix D – ANOVA test customer loyalty vs revenue

	SS Effect	df Effect	MS Effect	SS Error	df Error	MS Error	F	p
1.3. Gender	0.14	2.00	0.07	25.78	101.00	0.26	0.27	0.77
1.4. Age	5.04	2.00	2.52	167.72	101.00	1.66	1.52	0.22
1.5. Home language	2.15	2.00	1.07	183.97	101.00	1.82	0.59	0.56
2.1. Is this your shop	0.03	2.00	0.02	25.97	101.00	0.26	0.06	0.94
2.2. Own shop	0.02	2.00	0.01	25.97	101.00	0.26	0.04	0.96
2.2. Manage/ supervise shop	0.09	2.00	0.05	18.90	101.00	0.19	0.25	0.78
2.2. Staff in shop	0.02	2.00	0.01	20.44	101.00	0.20	0.06	0.94
2.2. Your role in the shop	0.22	2.00	0.11	195.75	101.00	1.94	0.06	0.95
2.3. How long have you owned the shop or been working in it	0.18	2.00	0.09	261.66	101.00	2.59	0.03	0.97
Service Quality	3.44	2.00	1.72	111.28	101.00	1.10	1.56	0.21
log Service qual	0.12	2.00	0.06	3.75	101.00	0.04	1.62	0.20
Customer Satisfaction	1.25	2.00	0.63	80.19	101.00	0.79	0.79	0.46
log(8-cust sat)	0.31	2.00	0.16	15.62	101.00	0.15	1.02	0.37
Customer Loyalty	1.02	2.00	0.51	67.68	101.00	0.67	0.76	0.47
log(8-cust loyalty)	0.20	2.00	0.10	17.22	101.00	0.17	0.57	0.56
3.1. Number of times the Sales representative visits the shop	3.06	2.00	1.53	218.29	101.00	2.16	0.71	0.50
3.2. Sales representative has a good relationship with me	1.04	2.00	0.52	92.94	100.00	0.93	0.56	0.57
3.3. Delivery staff have a good relationship with me	6.78	2.00	3.39	318.21	101.00	3.15	1.08	0.35
3.4. Sales representative helps me make the business earn more money	9.25	2.00	4.63	328.45	100.00	3.28	1.41	0.25
3.5. Sales representative puts a lot of effort into resolving my problems quickly	15.07	2.00	7.53	304.30	98.00	3.11	2.43	0.09
3.6. Delivery staff put a lot of effort into resolving my problems quickly	1.92	2.00	0.96	356.85	100.00	3.57	0.27	0.76
3.7. Switchboard at the Distribution Centre answers my telephone calls quickly	0.58	2.00	0.29	344.17	97.00	3.55	0.08	0.92
3.8. Information you receive about any delays in delivery	26.92	2.00	13.46	527.17	100.00	5.27	2.55	0.08
3.9. Information you receive about any out of stock products	15.88	2.00	7.94	454.12	101.00	4.50	1.77	0.18
3.10. Number of times the Management Team visit your shop	8.81	2.00	4.40	477.95	97.00	4.93	0.89	0.41
3.11. How satisfied are you with the service quality	3.72	2.00	1.86	309.32	101.00	3.06	0.61	0.55
4.1. The quality of most products I buy from ABI is good	1.15	2.00	0.57	279.47	101.00	2.77	0.21	0.81
4.2. ABI carries a large variety of products	3.60	2.00	1.80	147.84	100.00	1.48	1.22	0.30
4.3. The prices of most products I buy from ABI are reasonable	0.42	2.00	0.21	401.16	99.00	4.05	0.05	0.95
4.4. I am satisfied with the 48 hours it takes ABI to deliver my order to me from the time	27.42	2.00	13.71	235.62	101.00	2.33	5.88	0.00
4.5. I am satisfied with the accuracy of my order	7.09	2.00	3.54	457.44	100.00	4.57	0.77	0.46
4.6. Point of sale material to create awareness of products in store provided by ABI is g	0.89	2.00	0.44	289.08	101.00	2.86	0.15	0.86
4.7. ABI provide sufficient discounts to enable running of in store specials	5.35	2.00	2.68	552.13	98.00	5.63	0.47	0.62
4.8. Payment terms provided by ABI promote an increase of purchases from them	2.22	2.00	1.11	435.84	100.00	4.36	0.25	0.78
4.9. ABI perform better or equal to other similar suppliers	1.24	2.00	0.62	253.79	101.00	2.51	0.25	0.78
4.10. My overall satisfaction with the attributes mentioned	3.87	2.00	1.94	196.66	101.00	1.95	0.99	0.37
5.1. Staying in the relationship with ABICoke is a matter of necessity	0.88	2.00	0.44	210.11	101.00	2.08	0.21	0.81
5.2. Ending our relationship with ABICoke would be a (serious) loss of profit or revenue	0.43	2.00	0.22	161.94	101.00	1.60	0.14	0.87
5.3. My business or shop stays in its relationship with ABICoke because of the reward	17.13	2.00	8.57	363.68	98.00	3.71	2.31	0.10
5.4. I buy only/mainly from ABICoke because they provide the best quality products an	7.79	2.00	3.90	193.75	101.00	1.92	2.03	0.14
5.5. As a result of my positive relationship with ABI my purchases with them have incre	1.05	2.00	0.52	225.41	101.00	2.23	0.23	0.79
5.6. I would recommend ABI as a company to deal with to other business owners	0.68	2.00	0.34	124.82	99.00	1.26	0.27	0.76
5.7. I recommend ABI products to buyers/consumers ahead of other competitor products	1.03	2.00	0.51	200.51	101.00	1.99	0.26	0.77
5.8. ABI staff have our best interests at heart	1.79	2.00	0.89	288.18	101.00	2.85	0.31	0.73



### Appendix E – Service quality survey questionnaire graphs items 3.1 to 3.11





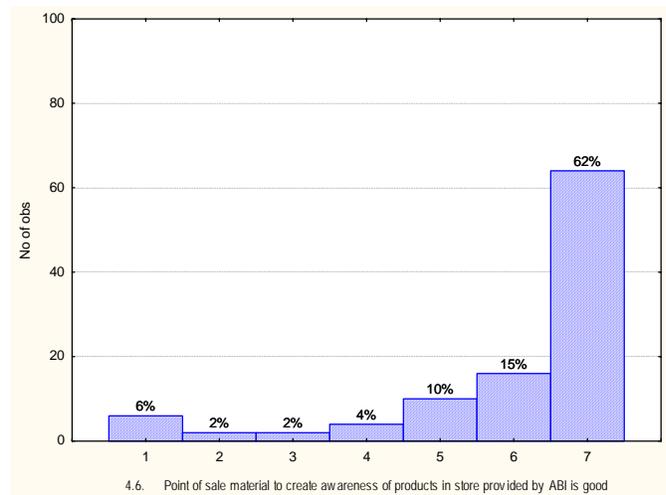
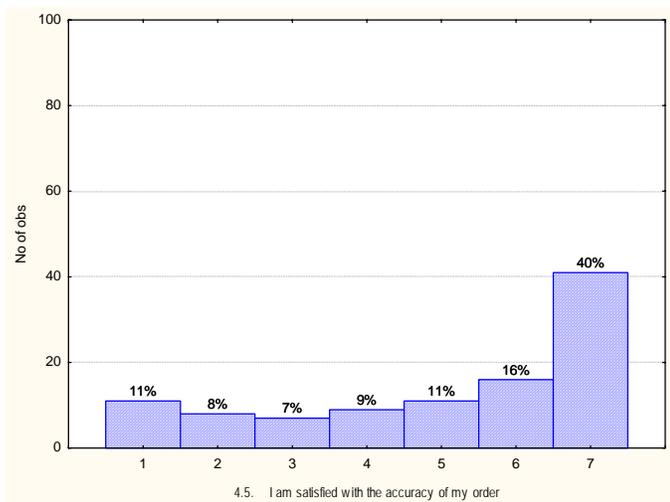
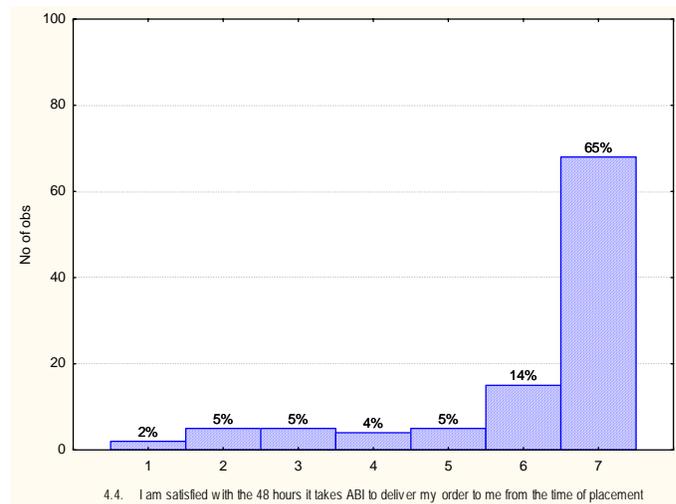
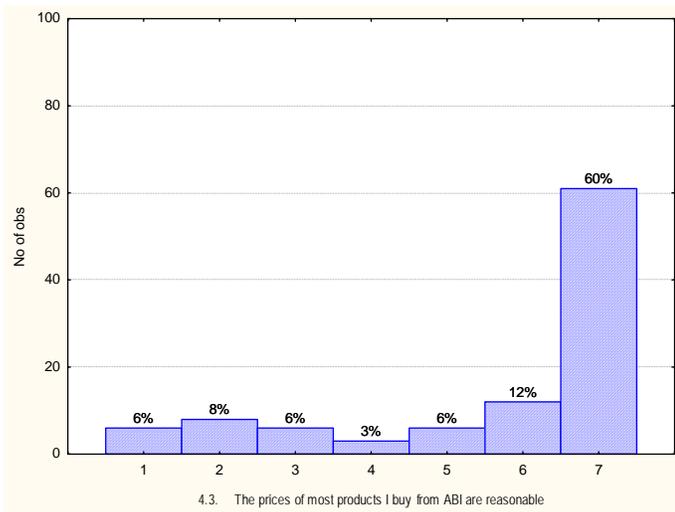
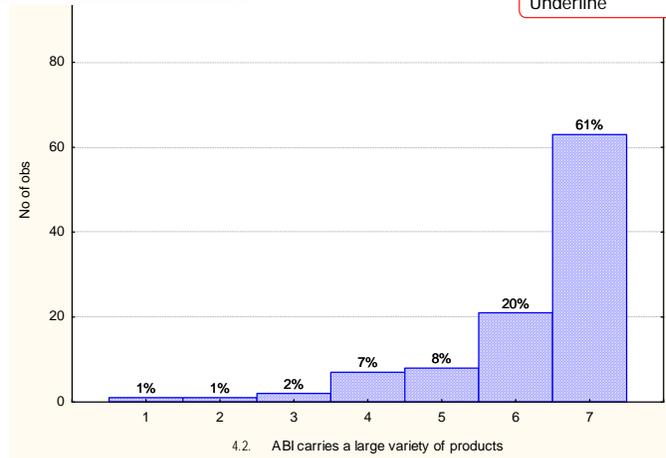
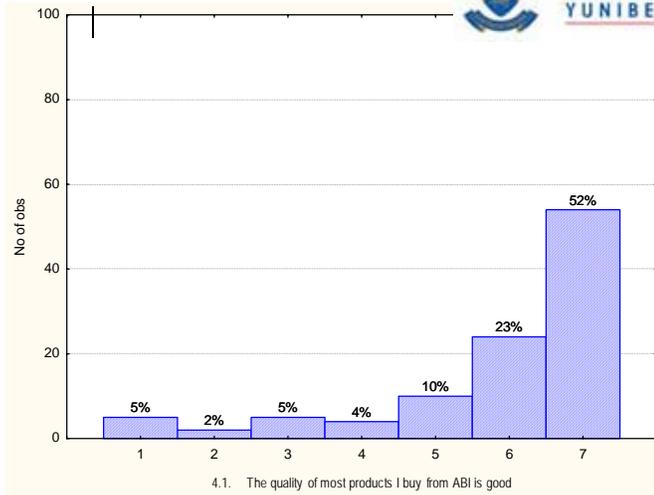
**Appendix F - Customer satisfactio**

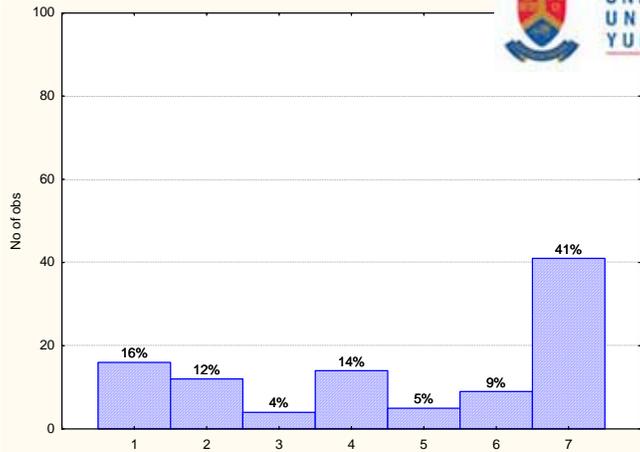


**4.1 to 4.10**

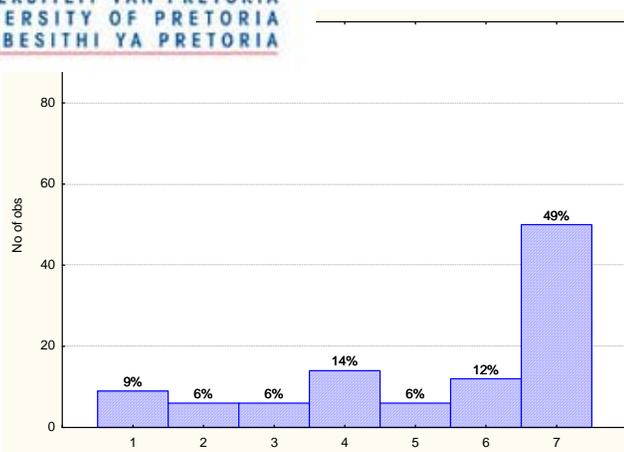
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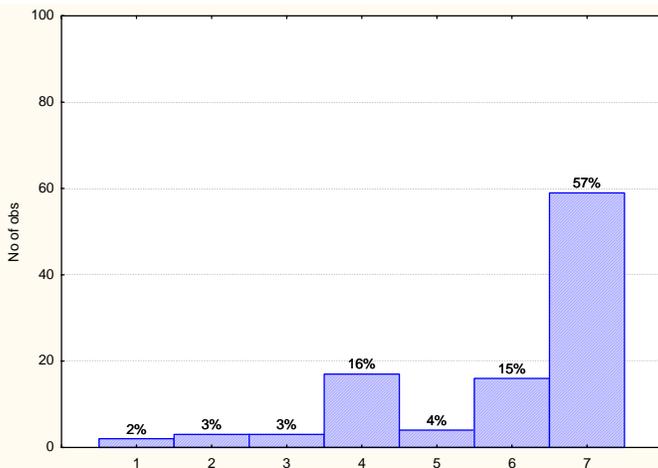




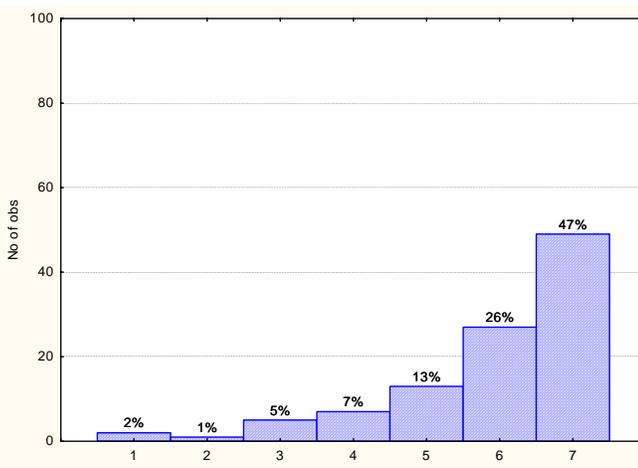
4.7. ABI provide sufficient discounts to enable running of in store specials



4.8. Payment terms provided by ABI promote an increase of purchases from them



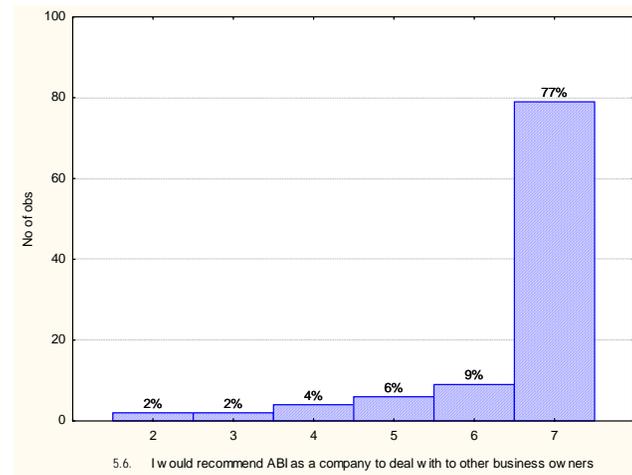
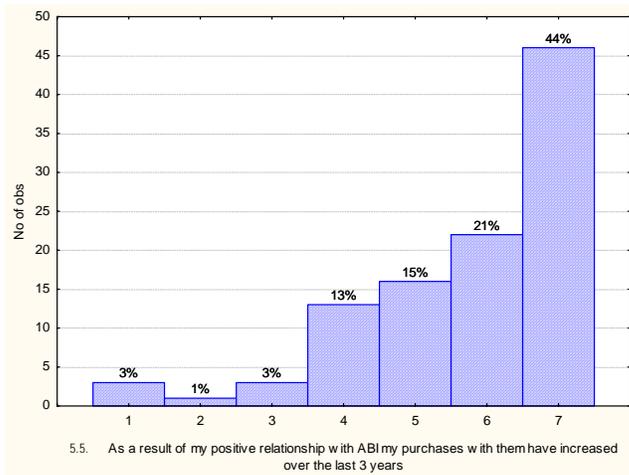
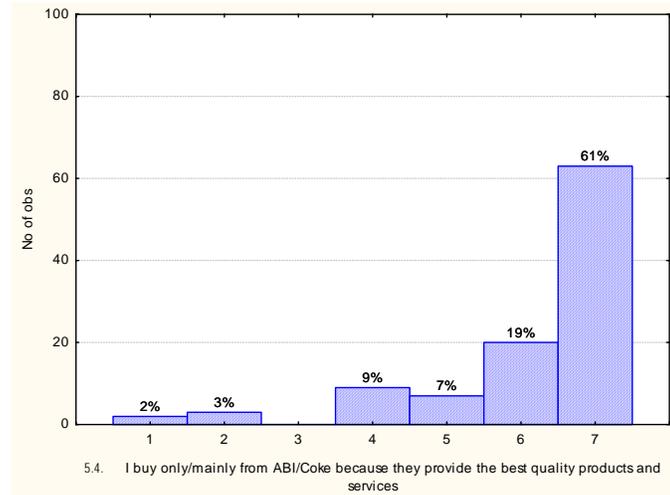
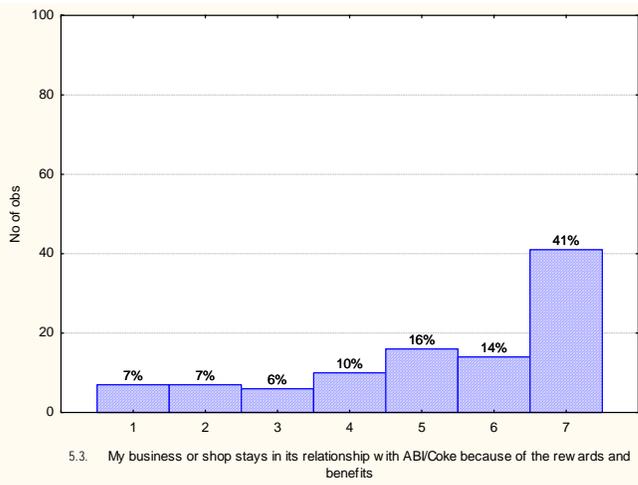
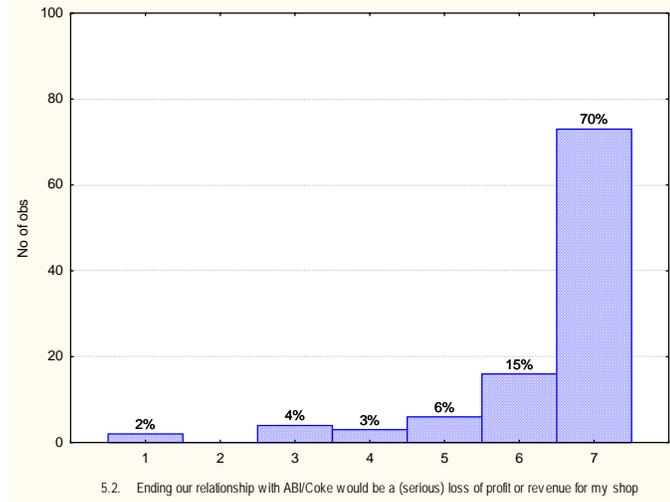
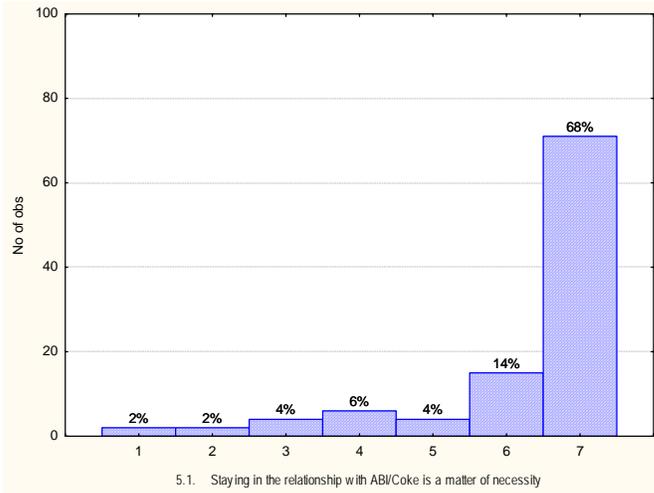
4.9. ABI perform better or equal to other similar suppliers

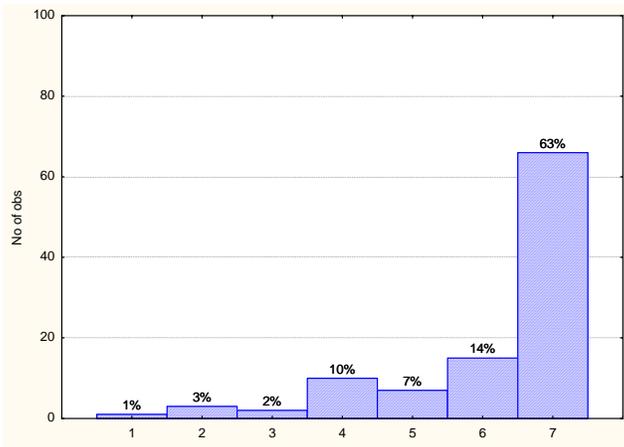


4.10. My overall satisfaction with the attributes mentioned

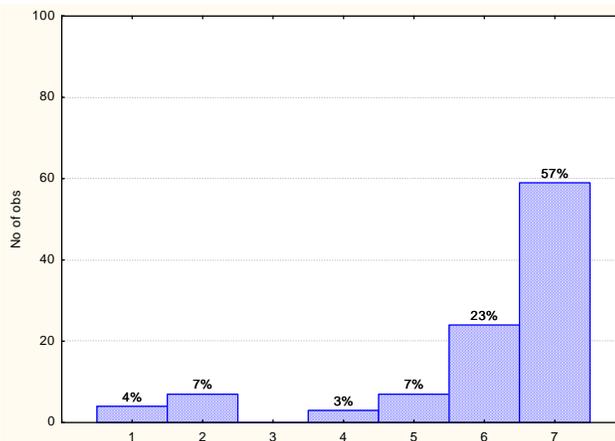


## Appendix G – Customer Profitability survey questionnaire graphs items 5.1 to 5.8





5.7. I recommend ABI products to buyers/consumers ahead of other competitor products



5.8. ABI staff have our best interests at heart