

Research Report



Customer Service Expectations in Retail Banking in Africa

Diedré Möller

A Research Report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Business Administration.

Johannesburg

July 2007

ABSTRACT

Customer satisfaction and retention are critical for retail banks. Service quality is a major determinant of customer satisfaction, and is increasingly being seen as a key strategic differentiator within the financial services sector worldwide. However, little is known about service quality in an African context for retail banking.

This research assesses customer expectations based on service quality factors for retail banks across ten countries in Africa. Specifically, the objectives are to determine whether cross-national differences in customer service expectations exist in the African retail banking sector, what the relative importance of key service dimensions in African retail banking are, and whether these service expectations are constant over time.

A questionnaire based survey of 4035 respondents across ten African countries was used. The determinants of external service quality were identified, which include service quality dimensions and respective underlying attributes. The SERVQUAL model developed by Parasuraman, Zeithaml & Berry (1990) was adopted for modelling the data. The results were rescaled to interval data and then analysed by way of ANOVA testing, t-testing and rank ordering.

The research shows, with the exception of the Responsiveness service expectation dimension, that there are no commonalities of service expectations among the African countries of this study. The implications of this are significant for managers of multinational retail banks in Africa wishing to improve the quality of service delivery.

The Responsiveness service expectation **dimension** was found to consistently be the most important expectation across all countries. Thereafter, the relative importance of subsequent service dimensions varied considerably for each country, but, on average, ranked as follows: Responsiveness, Reliability, Tangibles, Assurance and, finally, Empathy.

For most countries the underlying service **attributes** of efficient staff, shorter queues, service reliability and convenient locations are most important to customers. Furthermore, these attributes appeared to be increasingly important over time. Any efforts to increase the speed of processing information and customers are likely to have an important and positive effect on customer satisfaction.

The results suggest that core dimensions such as responsiveness (driven by staff efficiency and shorter queues), and reliability (performing dependably and accurately) are more important while relational issues surrounding assurance and empathy are of less importance.

Insignificant attributes with a below average importance included appearance of facilities, providing a welcoming environment, after sales service, good advice, good product knowledge, feedback on processes, feedback provided timeously, and building long term relationships.

Finally, the research demonstrates that service expectations in Africa are not static. Service expectations do change over time, and this change is evident over a relatively short period of time (< 1 year).

These findings emphasise the need for conducting frequent assessments of customer expectations in order to proactively understand and address changing needs in an effort to improve service quality, and ultimately customer satisfaction and profitability.

DECLARATION

I, Diedré Möller, declare that this research is my own, unaided work. It is submitted in partial fulfilment of the requirements for the degree of Masters of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination in this or any other university.

Diedré Möller

30 July 2007

DEDICATION

This research is dedicated to the wonderful memories of my Father,

Anton Möller (1949 – 1991)

ACKNOWLEDGEMENTS

My sincere thanks and appreciation to the following people:

Alana Moller, Anne Du Plessis, Michael Franze and Carl Grim, for your incredible wisdom, leadership and unremitting love.

Dr. Geoff Bick, and Dr. Anthony Stacey of the University of the Witwatersrand, Graduate School of Business Administration.

This research would not have been possible without their support, guidance and mentorship.

TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	PURPOSE OF STUDY	1
1.2	CONTEXT OF STUDY	2
1.3	PROBLEM STATEMENT	2
1.3.1	SUB-PROBLEM ONE:.....	2
1.3.2	SUB-PROBLEM TWO:	3
1.3.3	SUB-PROBLEM THREE:	3
1.4	SIGNIFICANCE OF STUDY.....	3
1.5	DELIMITATIONS AND LIMITATIONS.....	3
1.5.1	DELIMITATIONS	3
1.5.2	LIMITATIONS	4
2	LITERATURE REVIEW	5
2.1	INTRODUCTION	5
2.2	CUSTOMER SATISFACTION	5
2.3	SERVICE QUALITY AND THE SERVICE-PROFIT CHAIN.....	6
2.4	SERVICE QUALITY AS A DIFFERENTIATOR	9
2.5	CROSS-NATIONAL DIFFERENCES IN SERVICE EXPECTATIONS	10
2.5.1	CONCLUSION	12
2.6	SERVICE QUALITY AND SERVICE EXPECTATIONS	13
2.6.1	MANAGING CUSTOMER EXPECTATIONS.....	13
2.6.2	MEASURING SERVICE QUALITY AND CUSTOMER EXPECTATIONS	16
2.6.3	SERVICE QUALITY EXPECTATIONS IN THE RETAIL BANKING SECTOR	23
2.6.4	CONCLUSION	24
2.7	CHANGES IN SERVICE EXPECTATIONS OVER TIME	25
2.7.1	CONCLUSION	25
2.8	SUMMARY OF RESEARCH PROPOSITIONS.....	25
2.8.1	PROPOSITION 1.....	25
2.8.2	PROPOSITION 2.....	26
2.8.3	PROPOSITION 3.....	26
3	RESEARCH METHODOLOGY	27
3.1	RESEARCH DESIGN	27
3.2	POPULATION AND SAMPLE	31
3.2.1	POPULATION.....	31
3.2.2	SAMPLE.....	33
3.3	DATA COLLECTION	34
3.4	DATA ANALYSIS AND INTERPRETATION	36
3.5	VALIDITY AND RELIABILITY.....	38
3.5.1	EXTERNAL VALIDITY.....	38
3.5.2	INTERNAL VALIDITY	39
3.5.3	RELIABILITY	40

4	PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS.....	41
4.1	DEMOGRAPHIC DATA	41
4.2	CROSS NATIONAL DIFFERENCES	43
4.3	IMPORTANCE RANKING OF SERVICE DIMENSIONS AND ATTRIBUTES.....	46
4.3.1	SIGNIFICANCE OF ATTRIBUTE MEANS.....	53
4.4	CHANGES IN SERVICE EXPECTATIONS OVER TIME (Q1 AND Q4 2006).....	62
5	CONCLUSIONS AND RECOMMENDATIONS	66
5.1	RESPONSES TO PROPOSITIONS	66
5.1.1	RESEARCH PROPOSITION 1:.....	66
5.1.2	RESEARCH PROPOSITION 2:.....	67
5.1.3	RESEARCH PROPOSITION 3:.....	71
5.2	RECOMMENDATIONS TO ORGANISATIONS.....	73
5.3	RECOMMENDATIONS FOR FUTURE RESEARCH.....	74
	REFERENCES.....	75
	APPENDIX A: INTERVIEW QUESTIONNAIRES	84
	Q4 2006 INTERVIEW QUESTIONNAIRE, (15 SERVICE ATTRIBUTES).....	84
	Q1 2006 INTERVIEW QUESTIONNAIRE, (11 SERVICE ATTRIBUTES).....	85
	APPENDIX B: DETAILED PRESENTATION OF RESULTS	86
	APPENDIX B.1: SUMMARY STATS – Q4 2006	86
	APPENDIX B.2: SUMMARY STATS – Q1 2006	90
	APPENDIX B.3: ONE-WAY ANOVA TESTING – Q4 2006	93
	APPENDIX B.4: T TEST: SIGNIFICANCE OF COUNTRY MEANS – Q4 2006	98
	APPENDIX B.5: T TEST: SIGNIFICANCE OF DIFFERENCES BETWEEN COUNTRY MEANS OVER TIME (Q1 – Q4 2006).....	102
	APPENDIX C: DATA FREQUENCY TABLES	105
	APPENDIX C.1: DATA FREQUENCY TABLES – Q4 2006.....	105
	APPENDIX C.2: DATA FREQUENCY TABLES – Q1 2006.....	109

LIST OF TABLES

TABLE 1: SERVQUAL DIMENSIONS.....	19
TABLE 2: DEFINITIONS OF SERVQUAL DIMENSIONS	20
TABLE 3: CLASSIFICATION OF ATTRIBUTES FOR RETAIL BANKS.....	22
TABLE 4: RANKING OF SERVQUAL DIMENSIONS BY CUSTOMERS IN THE RETAIL BANKING SECTOR	24
TABLE 5: MAPPING OF SERVICE ATTRIBUTES TO SERVQUAL DIMENSIONS	29
TABLE 6: SURVEYED COUNTRIES AND RESPECTIVE RETAIL BANKS.....	32
TABLE 7: SAMPLE SIZE BY COUNTRY	33
TABLE 8: QUESTIONNAIRE TRANSLATION BY COUNTRY	35
TABLE 9: RESULTS OF ONE-WAY ANOVA, Q4 2006	45
TABLE 10: IMPORTANCE RANKING OF OVERALL MEANS, BY SERVICE DIMENSIONS AND ATTRIBUTES, Q4 2006	47
TABLE 11: IMPORTANCE RANKING OF STANDARDISED MEANS, BY COUNTRY	52
TABLE 12: SIGNIFICANCE OF ATTRIBUTE MEANS BY COUNTRY, Q4 2006.....	55
TABLE 13: T-TEST FOR SIGNIFICANCE OF DIFFERENCES BETWEEN OVERALL SERVICE ATTRIBUTE MEANS OVER TIME (Q1 - Q4 2006)	63
TABLE 14: T-TEST FOR SIGNIFICANCE OF DIFFERENCES BETWEEN COUNTRY ATTRIBUTE MEANS OVER TIME (Q1 - Q4 2006)	64
TABLE 15: IMPORTANCE RANKING OF SERVQUAL DIMENSIONS.....	67
TABLE 16: IMPORTANCE RANKING OF SERVICE ATTRIBUTES	69
TABLE 17: IMPORTANCE RANKING OF SERVICE ATTRIBUTES – Q1 2006 vs Q4 2006...	71
TABLE 18: SIGNIFICANT CHANGES IN MEAN IMPORTANCE BETWEEN Q1 2006 – Q4 2006	72

LIST OF FIGURES

FIGURE 1: THE SERVICE-PROFIT CHAIN.....	8
FIGURE 2: EXPECTATIONS MANAGEMENT MODEL.....	15
FIGURE 3: SERVICE GAP MODEL OF THE SERVICE PROCESS	17
FIGURE 4: CLASSIFICATION OF SERVQUAL SERVICE DIMENSIONS	21
FIGURE 5: DATA ANALYSIS SPIRAL	38
FIGURE 6: RESPONDENT REPRESENTATION BY COUNTRY, Q1 2006	42
FIGURE 7: RESPONDENT REPRESENTATION BY COUNTRY, Q4 2006	42
FIGURE 8: RESPONDENT REPRESENTATION BY BANK, Q4 2006.....	43
FIGURE 9: IMPORTANCE RANKING OF POSITIVE OVERALL MEANS BY SERVICE DIMENSION, Q4 2006	48
FIGURE 10: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR BOTSWANA	57
FIGURE 11: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR EGYPT	57
FIGURE 12: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR GHANA	58
FIGURE 13: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR KENYA	58
FIGURE 14: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR MAURITIUS.....	59
FIGURE 15: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR SEYCHELLES....	59
FIGURE 16: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR TANZANIA.....	60
FIGURE 17: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR UGANDA	60
FIGURE 18: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR ZAMBIA	61
FIGURE 19: SIGNIFICANT SERVICE DIMENSIONS AND ATTRIBUTES FOR ZIMBABWE	61

1 INTRODUCTION

1.1 Purpose of Study

There is little doubt that achieving customer satisfaction and loyalty is essential for long-term survival. However, to achieve customer satisfaction, a superior level of service and customer orientation is required (Bick, Brown & Abratt, 2004).

According to Parasuraman, Berry & Zeithaml (1991), understanding customer expectations is a prerequisite for delivering superior service. Customers compare perceptions with expectations when judging a firm's service quality.

It therefore stands to reason that in order for retail banks to thrive, both product and service delivery must be adequately aligned with customer expectations.

The purpose of this research is to determine and analyse the cross-national differences in customer service expectations within the retail banking sector, across ten African countries, and understand how these service requirements change over time.

Researchers have defined customer service expectations in a variety of different ways, and tested the concept across different industries. However, limited research exists for retail banking in Africa. This study aims to extend existing research into ten African countries, by way of providing a comparative analysis of service expectations within the retail banking environment.

Motivated by the pivotal role of customer expectations in service quality assessments, and by the limited knowledge about cross-national differences and changes over time in the retail banking sector in Africa, this study has been designed to answer some fundamental questions; namely

1. Are there cross-national differences in customer service expectations in the African retail banking sector, and if so, what are they?

2. How stable are the service expectations? Are they constant or do they change over time?

1.2 Context of Study

According to Reichheld & Sasser (1990) the cost of gaining a new customer is about five times greater than the cost of retaining a current customer through the use of relationship marketing. Newman & Cowling (1996: 106) noted that, "for UK financial institutions, it is estimated that an increase of 5 per cent in customer retention is potentially worth £100 million a year. Realisations such as these have attracted in the mid-1990s the attention of directors of retail banks to measuring their service quality and customer satisfaction and initiating major service quality change programmes".

Understanding customer expectations in order to achieve service quality in Africa has become a widespread objective, driven by some of the high growth economies in developing countries and a general lack of information readily available.

1.3 Problem Statement

The purpose of the research is to determine whether cross-national differences in customer service expectations exist in the African retail banking sector, to identify the relative importance of key service dimensions in African retail banking, and to determine whether these service expectations are constant over time.

1.3.1 Sub-problem One:

To determine if there are cross-national differences in customer service expectations in the African retail banking sector.

1.3.2 Sub-problem Two:

To identify the relative importance of service quality dimensions in the African retail banking sector.

1.3.3 Sub-problem Three:

To determine whether these service expectations are constant over time.

1.4 Significance of Study

The research provides an increased body of knowledge surrounding the service expectations that underpin service quality, with specific focus on the African retail banking sector. Furthermore, the adaptation of the SERVQUAL model by Parasuraman, Berry & Zeithaml (1990) adds further insight to the measurement of cross-national service quality in African retail banking. This is valuable, as the increased knowledge base will enable future researchers to build upon the concepts determined by this study.

The research also provides guidance for commercial bank managers wanting to understand the dynamics of customer service expectations in Africa, and improve the quality of service delivered, in order to enhance customer satisfaction and customer loyalty.

1.5 Delimitations and Limitations

1.5.1 Delimitations

The scope of this study is limited to customers from the top five/ six commercial banks within the following ten countries:

- Botswana
- Egypt

- Ghana
- Kenya
- Mauritius
- Seychelles
- Tanzania
- Uganda
- Zambia
- Zimbabwe

1.5.2 *Limitations*

The study is limited to retail banks, and excludes corporate and merchant banks. Research was only conducted in principal cities of each country.

The research only explores service expectations of retail banking customers, and does not explore the service gaps that exist between customer expectations and customer experience (perceived services).

2 LITERATURE REVIEW

2.1 Introduction

The literature review investigates the following areas of interest;

- Customer satisfaction as a key success factor
- Service quality and the service profit chain
- The cross-national differences in service quality
- The relationship between service quality and service expectations
- Managing service expectations
- Measuring service quality expectations - models, classification and dimensions
- Service expectations in retail banking
- Whether service expectations change over time

2.2 Customer Satisfaction

The African financial services sector has recently seen a growing intensity of competition within the marketplace. No organisation can afford to overlook the importance of customer satisfaction, which is essential for developing customer loyalty and subsequent profitability within the banking sector.

Customer satisfaction is generally defined as the full meeting of one's expectations (Oliver, 1980). According to East (1997), customer satisfaction is the feeling or attitude of a customer towards a product or service after it has been used. For example, if customers are satisfied with a particular service offering after its use, then they are likely to engage in repeat purchase and try line extensions. It is widely recognised that customer satisfaction plays a key role in the formation of customers' future purchase intentions (Taylor & Baker, 1994). Satisfied customers are also likely to share their favourable experiences with others and thus engage in positive word of mouth advertising (Richens, 1983; File & Prince, 1992). Furthermore, behaviours such as repeat purchase and word-of-

mouth directly affect the viability and profitability of a firm (Dabholkar, Thorpe & Rentz, 1996).

A study conducted by Levesque & McDougall (1996) confirmed that unsatisfactory customer service leads to a drop in customer satisfaction and willingness to recommend the service to a friend. This would in turn lead to an increase in the rate of switching by customers. Hallowell (1996) suggests that in the retail banking sector, attainable increases in satisfaction could dramatically improve profitability.

Thus, it can be deduced that supplier performance is directly related to customer satisfaction and loyalty, which is linked to customer retention and profitability.

Customer satisfaction and loyalty – secured through high-quality products and services providing value for money for the consumer – are essential for long-term survival, let alone long-term success (Parasuraman *et al.*, 1985, 1990; Cina, 1990; Reichheld & Sasser, 1990; Daniel, 1992; Shycon, 1992; Gale, 1994; Robledo, 1996).

Customer satisfaction, and related retention rates, can come from a range of activities available to the firm. Levesque *et al* (1996) points out that for retail banks, major gains in customer satisfaction are likely to come from improvements in: (i) service quality; (ii) service features; and (iii) customer complaint handling.

For this investigation, service quality is used as the key measure towards improving customer satisfaction.

2.3 Service Quality and the Service-Profit Chain

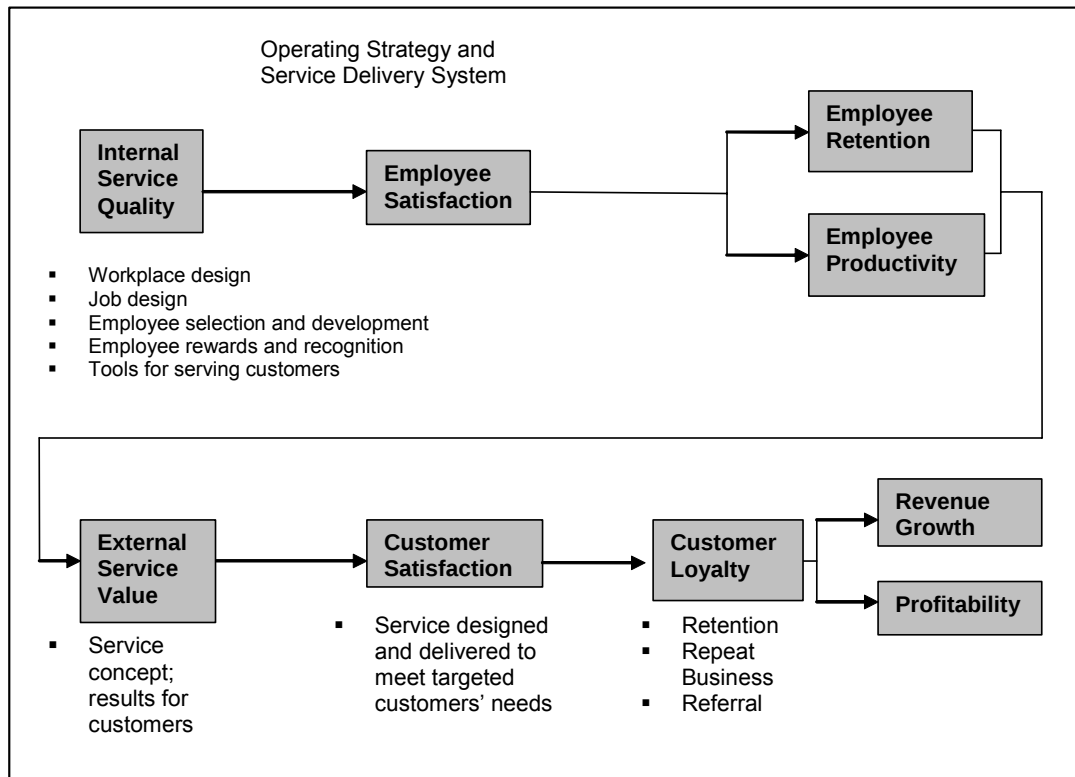
Customer satisfaction is often closely related to the measurement of service quality (Cronin & Taylor, 1992; Anderson & Sullivan, 1993; Bitner & Hubbert, 1994; Taylor & Baker, 1994; Rust & Oliver, 1994; Levesque & McDougall, 1996). While satisfaction is a feeling or an attitude of a customer towards a service after it has been used, service quality relates to “the customers' overall impression of the relative inferiority/superiority of the organization and its services” (Bitner & Hubbert, 1994: 77).

Service quality is widely recognised as being a critical determinant for the success of an organisation in today's competitive environment. Any decline in customer satisfaction due to poor service quality would be a matter of concern. "Consumers being more aware of rising standards in service, prompted by competitive trends, have developed higher expectations" (Marshall, Baker & Finn, 1998: 381).

As a result, there has been a growing interest in service quality issues, which are both internal and external to an organisation. For example, Heskett, Jones, Loveman, Sasser, & Schlesinger (1994) proposed a "service-profit chain" (SPC) that integrates these perspectives into a model that establishes relationships between internal service quality and employee satisfaction, external service quality and customer satisfaction, and profitability.

The links in the SPC 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. Value is created by satisfied, loyal, and productive employees. Employee satisfaction, in turn, results primarily from high-quality support services and policies that enable employees to deliver results to customers. (See Figure 1).

Figure 1: The Service-Profit Chain



Source: Heskett et al (1994)

The SPC perspective means that service quality should be an integrated approach implemented along the entire supplier-customer chain, reflecting “a basic business strategy that provides goods and services that completely satisfy both internal and external customers by meeting their explicit and implicit expectations” (Tenner & DeToro, 1992: 31).

The SPC provides a framework for understanding how a firm's operational investments into service operations are related to customer perceptions and behaviours, and how these translate into profits.

The popularity of the SPC framework is evident in the numerous case studies reported by practitioners, the most notable being its application at Sears (Rucci, Kirn & Quinn, 1998).

Rust, Zahorik & Keiningham (1995) proposed another framework; "Return on Quality". This model is similar, although it differentiates itself by explicitly modelling the cost and benefits of quality related investments. In the SPC framework, the focus is on revenue rather than profitability, while the ROQ model focuses on the cost (and return) of quality.

However, both the SPC and ROQ have several commonalities, the most notable being an emphasis on driving the firm's operations based on statistical analyses of customer surveys. Thus, customer surveys are used to identify key service attributes (and expectations) that impact overall quality and retention, which in turn drive financial outcomes. In this respect, they can provide actionable guidance to management (Kamakura, Mittal, De Rosa & Mazzon, 2002).

There is a need for approaches that combine data such as measures of operational inputs, customer perceptions and behaviours, and financial outcomes. (Kamakura *et al*, 2002).

This research focuses on external customer service quality requirements, and provides links between the SPC "internal service quality" and "customer value", by exploring how different countries might vary in the importance they place on different service dimensions. This will enable managers to build customer satisfaction, loyalty and corresponding profitability and growth.

2.4 Service Quality as a Differentiator

Quality is nowadays among the most critical aspects for the strategic management of service firms (Robledo, 2001). Perceived quality reflects the opinion of the customer regarding the superiority or global excellence of a product or service (Zeithaml, Berry & Parasuraman, 1988)

According to Venetis & Ghauri (2004), service quality is regarded as one of the few means of services differentiation, attracting new customers and increasing market share. It is also viewed as an important means of customer retention. The lifetime value of a loyal customer can be astronomical, especially when referrals

are added to the economics of customer retention and repeat purchases of related products (Heskett *et al*, 1994)

In one case, a retail bank that increased its customer retention rates by 5 per cent increased its profits by 85 per cent (Reichheld & Sasser, 1990). The cost of gaining a new customer is about five times greater than the cost of retaining a current customer through the use of relationship marketing. Newman & Cowling (1996: 106) noted that, "for UK financial institutions, it is estimated that an increase of 5 per cent in customer retention is potentially worth £100 million a year.

The ability to provide a quality service will, therefore, improve a commercial banks' ability to increase market share and profitability, whilst at the same time reducing their existing customer's switching propensity to another institution. Thus the ability to consistently provide a high quality service offering may well act as a key strategic differentiator.

Furthermore, successful organisations perusing quality have realised that quality improvements must be focused where most productive (Keiningham, Zahorik & Rust, 1995). Improved quality has a three-fold pay-off; namely reduced costs, increased customer retention, and attracting new customers drawn to the quality service provider (Keiningham *et al*, 1995).

In order to achieve service quality, it is important to identify key service expectations and focus efforts at the most beneficial point in the customer value-chain.

2.5 Cross-national Differences in Service Expectations

Johnson & Mathews (1997) emphasise the importance of understanding customer expectations as a first step in improving service quality. Johnson, *et al* (1997) also points out that expectations can vary according to culture, for example his study "The influence of experience on service expectations" finds that "security" was

perceived as the highest expectation based on research undertaken in the UK, whilst "reliability" was the most important quality dimension to US consumers.

While Webster (1989) discovered the importance of demographics on expectations in the USA, Johnson *et al* (1997) argue that there are other factors that could influence expectations which have yet to be investigated empirically. Davidow & Uttal (1989: 25) note: "Service expectations are formed by many uncontrollable factors, from the experience of customers ... to a customer's psychological state at the time of service delivery."

A number of authors have identified cross-national differences in service expectations. Knight (1999: 356), identified the growing importance of international services and highlighted the need for additional research into the international marketing of services. In particular, he highlights "a key challenge is overcoming hurdles associated with the unique characteristics of each country and the fact that services are particularly prone to culture and other country-specific influences. Services are fundamentally people-centered and are therefore highly culture-sensitive." Stauss & Mang (1999) identified the possibility that the perceived service encounter differs among customers from different cultures. Stauss & Mang (1999) points out that there is hardly any prior discussion about the fact that customers with different cultural backgrounds may have different expectations toward service encounters and that they may perceive these situations differently.

Smith & Reynolds (2001: 405) state that "Cultural differences may also explain variations in consumers' reported perceptions of a service".

The importance of taking cross-national differences in service expectations into consideration when designing and implementing a marketing strategy is critical for multinational companies expanding into new markets or facing increasing competition in existing international operations. Lovelock (1999) shows that in developing a transnational service strategy, management must decide which, if any, supplementary elements should be consistent across all markets and which might be tailored to meet local needs, expectations and competitive dynamics.

Speece & Pinkaeo (2002) described the differences in customer expectations based on ethnocentrism in Thailand compared to other countries. Espinoza (1999) indicates that service managers need to be cognizant of the parts of the service delivery experience that are open to cultural influences as contrasted with those that remain stable across cultures. For example, in his study "Assessing the cross-cultural applicability of a service quality measure", he finds "responsiveness" was the most important dimension for Quebecers while "tangibles" was the most important for Peruvians. Differences in service expectations are relevant and need to be considered when designing a marketing strategy.

In considering the growing importance of understanding cross-cultural difference, it is useful to consider Tersine & Harvey (1998: 45), who points out that "Trade liberalization, expanding global markets, and technology proliferation" require organisations to "confront the need for a fundamental change in the way products and services are designed, produced, and delivered to customers". This importance is growing with the ongoing growth of global business and global service business in particular. International trade in services has shown a growth rate of 18% percent and today makes one-fifth of all world trade (World Trade Organisation, 2005). Increasing globalisation results in more service companies who conduct their business with customers of different cultures. For these multinational companies it is becoming increasingly important to determine whether there are differences among the service expectations and what form these differences take.

2.5.1 Conclusion

In summary, the literature suggests that cross-national differences exist and are key to designing a marketing strategy, however little research has been done in Africa on this topic.

Proposition 1: Customer service expectations differ significantly between countries in Africa

2.6 Service Quality and Service Expectations

In response to the growing importance of services in the worldwide economy, and the recognition by firms for the need to compete on the service dimensions of the augmented product, several researchers have examined the problems of measuring and managing service quality (Bitner 1990; Parasuraman, Berry, & Zeithaml 1985, 1988, 1990, 1991; Bolton & Drew 1991a, 1991b; Boulding, Klara, Staelin & Zeithaml 1993, Robledo 2001).

2.6.1 *Managing customer expectations*

Customer expectations constitute an integral part of service quality evaluations. In order to manage service quality, a strategic effort should be made at company level to understand and manage their customer's expectations and perceptions regarding the quality of service delivered in daily interactions.

Robledo (2001) suggests that perceived quality constitutes two components; namely customer perceptions and expectations.

Perceptions of the dimensions of **service quality** are viewed to be a function of a customer's prior **expectations** of what will and what should transpire during a service encounter, as well as the customer's most recent contact with the service delivery system (Boulding, Klara, Staelin & Zeithaml, 1993).

Parasuraman *et al* (1991) and Robledo (2001) suggests that understanding customer expectations is a prerequisite for delivering superior service, since customers evaluate a firm's service quality by comparing their perceptions of the service with their expectations. As a result, Robledo (2001) proposed a model to manage expectations (Figure 2).

The model depicts the relationship between customer expectations and perceptions, and describes the different sources that can influence customer expectations. It shows that in order to understand expectations, one needs to investigate perceived service quality and the level of expectations (i.e. where

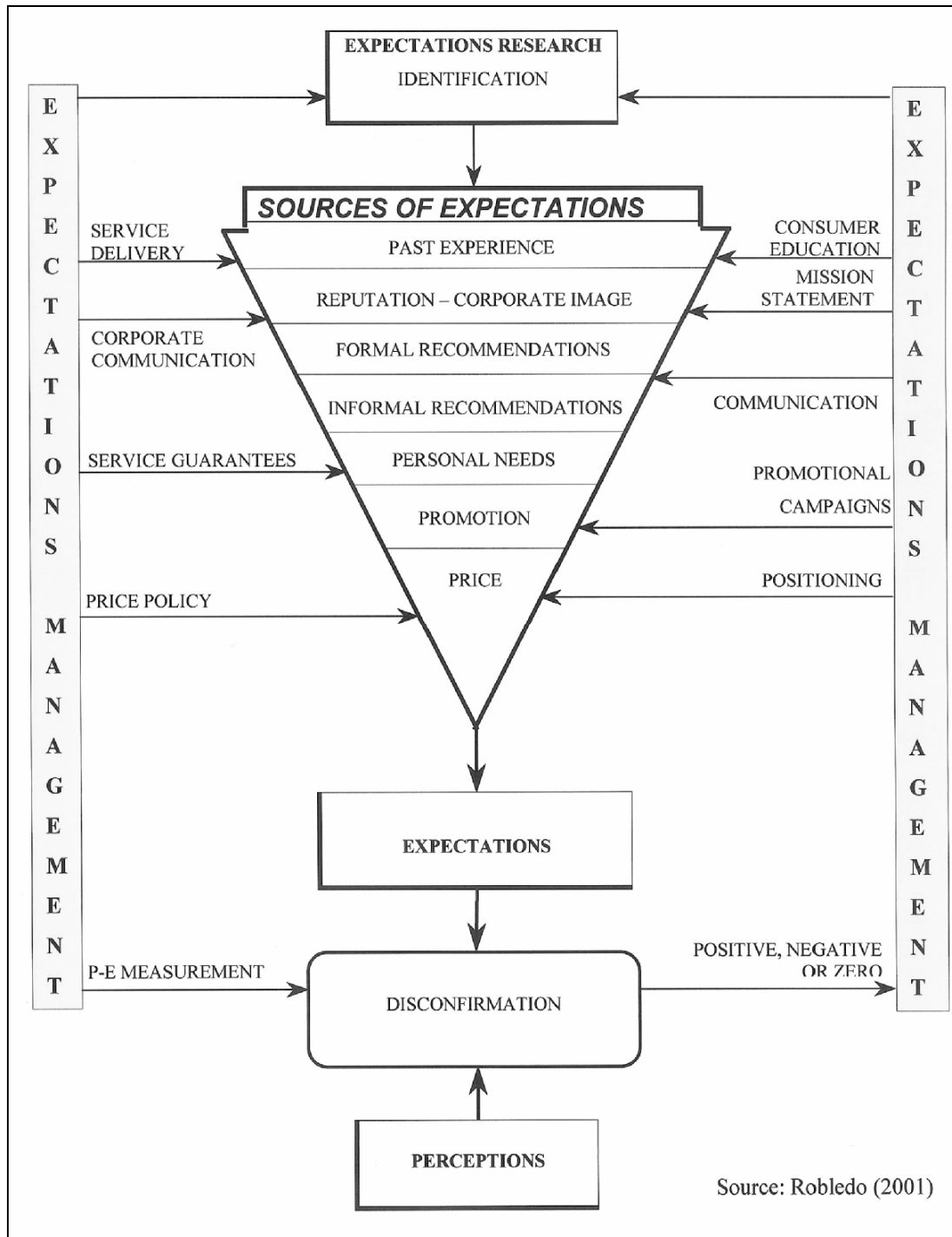
customer expectations may be too high relative to performance, or vice versa). Doing this requires an understanding of the sources of customer expectations.

Sources of expectations:

Zeithaml *et al.* (1990) only mention five sources of expectations: word-of-mouth communications, promotion, price, personal needs, and past experience. Robledo (2001) argues that there are many others, namely; past experience, reputation, informal and formal recommendations, personal needs, the promotional mix, and price. According to Robledo (2001), the sources of expectations in the diagram are ranked from most influential to least influential - on customer expectations. Thus the influence of past experience on expectations is significant, whilst pricing has the lowest influence. It is important to manage the attributes that will deliver maximum benefit toward client's expectations.

An understanding of customer expectations and the source of those expectations is critical in managing perceptions and, therefore delivering service quality.

Figure 2: Expectations Management Model



2.6.2 Measuring service quality and customer expectations

Much literature exists on quality measurement. This section discusses the models used to measure service quality and the classification of quality dimensions.

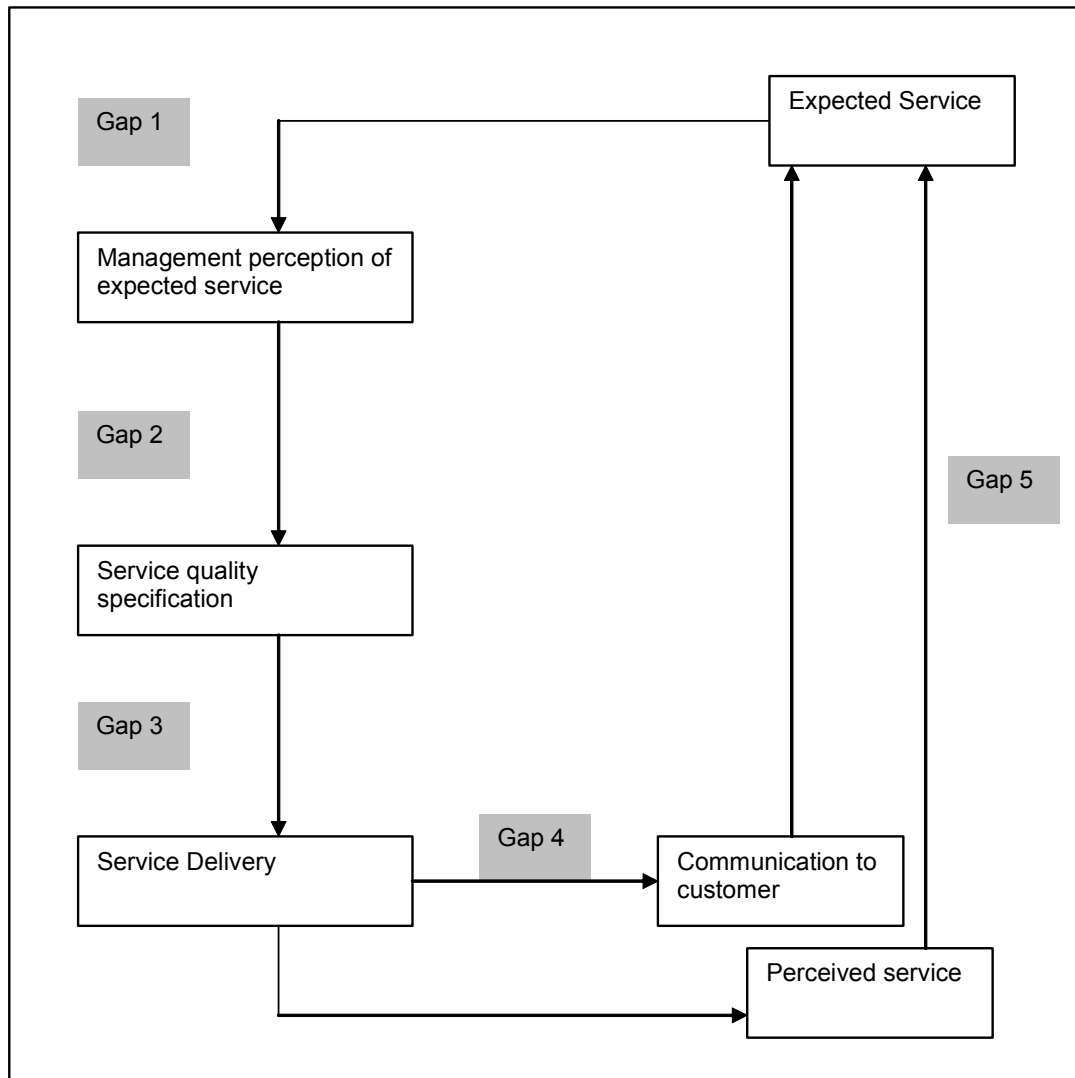
Service quality, as noted earlier, is generally used to measure customer's perception of services rendered (Zeithaml *et al*, 1990).

Available models: SERVQUAL vs. SERVPERF

The most common models used for measuring service quality are SERVQUAL, developed by Parasuraman, Zeithaml & Berry (1985, 1988, 1990, 1993), and SERVPERF, developed by and Cronin & Taylor (1992).

SERVQUAL provides a framework for analysing quality failures by identifying the "service gaps" that arise, which cause a mismatch between customer expectation and customer experience (perceived service), shown in Figure 3. SERVPERF is based only on perceptions of performance, and is a performance-based measure of the service delivered.

Figure 3: Service Gap Model of the Service Process



Source: Parasuraman, Zeithaml & Berry (1985)

SERVQUAL is currently the most widely reported framework, although it has come under some criticism, highlighted by Cronin & Taylor (1992), Teas (1993), and Nel, Pitt & Berthon (1997).

Parasuraman *et al* (1994) acknowledged the shortcomings of SERVQUAL, and developed an augmented model, SERVQUAL; the Zone-of-Tolerance model. An alternative model by Cronin & Taylor (1992) called SEVPERF was developed but has not been widely adopted.

Quester & Romaniuk (1997) found that little difference existed between the SERVQUAL and SERVPERF models, based on a comparative study conducted in the Australian advertising industry.

According to Stone (2006), the dimensional stability of SERVQUAL model are generally stable although not completely generic (Carman, 1990). The reliability and validity of the SERVQUAL model were analysed in a South African context by Boshoff & Nel (1992) and Nel *et al* (1997). Reliability, convergent validity, content validity and nomological validity were retained. However, discriminant validity was rejected, implying that regional factors differed. Carman (1990), Buttle (1996), and Nel *et al* (1997) found this to be a criticism of the SERVQUAL model.

Classification and dimensions of service quality

The classification of service quality has been addressed by a number of authors. Most agree that service consists of an outcome and a process element, where outcome is the achievement (or not) of some end by the customer (for example, cash from a cash dispenser, an appropriate insurance policy or loan) and process is the interaction between the customer and the service unit. The variation in tangibility of the service, and the presence of the customer in the process, frequently make it difficult to define the boundary between the two (Blanchard & Galloway, 1994). Lehtinen & Lehtinen (in Le Blanc & Nguyen, 1988) identify the three dimensions of service quality:

- physical quality – equipment, premises, tangibles;
- corporate quality – image and profile of the organization;
- interactive quality – customer contact with service personnel and other customers.

Grönroos (1988) identifies the five key determinants of service quality as:

- professionalism and skills (technical (outcome related));
- reputation and credibility (image related);
- behaviour and attitudes;

- accessibility and flexibility; and
- reliability and trustworthiness.

The first of these are technical (outcome related) and the last four are functional (process related).

The most extensively reported framework is that proposed by Parasuraman, Zeithaml & Berry (1988); SERVQUAL, which measures the difference between customers' perceptions of a service and their expectations of the service. The model consists of five dimensions of service quality;

- reliability
- tangibles
- responsiveness
- assurance
- empathy

These are a consolidation of ten dimensions as shown in Table 1. The definitions of the SERVQUAL dimensions are discussed in Table 2.

Table 1: SERVQUAL Dimensions

SERVQUAL	Components
Tangibles	Tangibles
Reliability	Reliability
Responsiveness	Responsiveness
Assurance	Competence Courtesy Credibility Security
Empathy	Access Communication Understanding

Source: Parasuraman, Zeithaml & Berry (1988)

Table 2: Definitions of SERVQUAL Dimensions

SERVQUAL Dimensions of Service	Definition
Tangibles	The appearance of physical facilities, equipment, personnel, and communication material
Reliability	The ability to perform the promised service dependable and accurately
Responsiveness	The willingness to help customers and provide prompt service
Assurance	The knowledge and courtesy of employees, and their ability to convey trust and confidence. ▪ Competence ▪ Courtesy ▪ Credibility ▪ Security
Empathy	The caring individualised attention provided to the customer. ▪ Understanding ▪ Communication ▪ Access

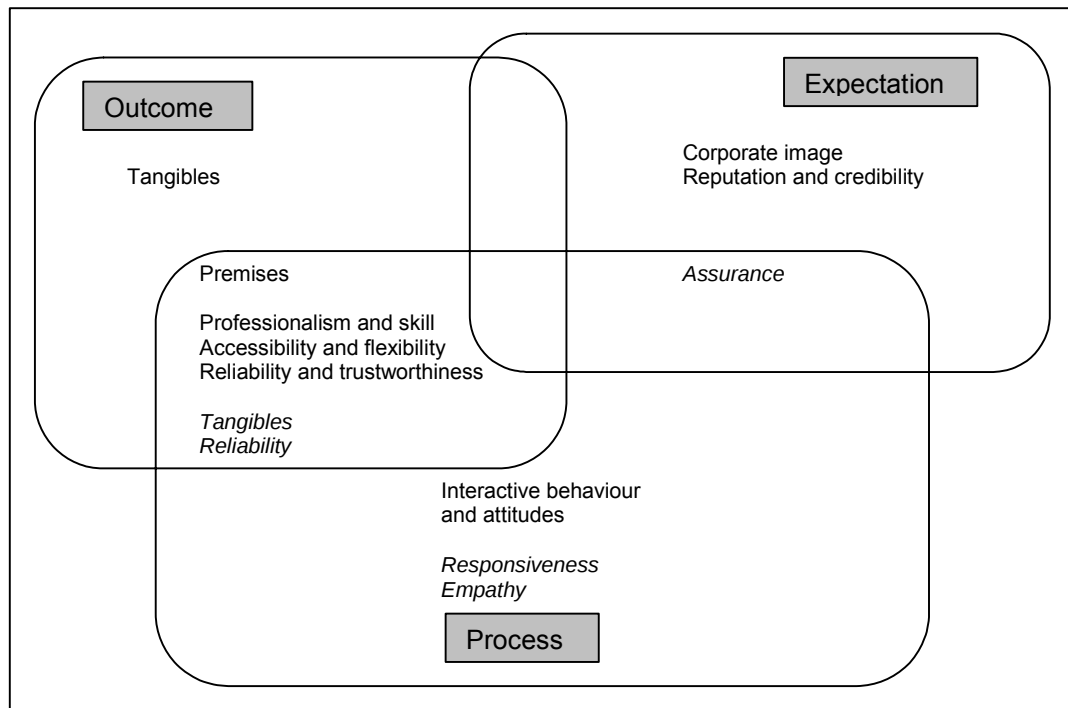
Source: Parasuraman, Zeithaml & Berry (1988)

Blanchard & Galloway (1994) describe an alternative basis for modelling service quality. As a result of the possible overlap and ambiguity in the SERVQUAL dimensions, Blanchard *et al* (1994) proposed a model based on the three dimensions of process/outcome, subjective/objective, and soft/hard. These are, in the authors' opinion "probably orthogonal". *Subjective/objective* provides a measure of the degree to which the quality of an aspect of service can be objectively specified. For example, cash availability in machines is objective, whereas "politeness of staff" is more subjective. The terminology *Soft/hard* describes hard as physical aspects of the service while soft represents interpersonal interaction. Typically, soft issues (e.g. staff attitude) are more difficult to manage and measure (Vandermerwe, 1993).

The classification of these service dimensions relative to the SERVQUAL dimensions are shown in Figure 4, and the classification of service attributes based on the model is shown in Table 3 below.

Blanchard & Galloway (1994) demonstrate that **process** is far more important than **outcome** in determining customer perceptions of service quality. They also demonstrate that, objective and hard aspects in retail banking services are as important as the subjective and soft aspects, but can be much more readily identified and specified. Thus “addressing the hard and objective issues could more readily provide, and monitor, a high quality service in a fairly prescriptive and reproducible manner” (Blanchard *et al*, 1994: 14).

Figure 4: Classification of SERVQUAL Service Dimensions



Source: Grönroos (1988)

Table 3: Classification of Attributes for Retail Banks

Attribute	Process/ outcome	Subjective/ objective	Soft/ hard
Privacy of discussions	P	O	H
Politeness of counter staff	P	SIO	S
Willingness to help	P	SIO	S
Way staff treat customers	P	S	S
Cash in machines	O	O	H
Speed and efficiency of transactions	P/O	SIO	SIH
Staff listen	P	S	S
Tills open at busy times	P	O	H
Staff available to help	P	SIO	H
Informing of account changes	P/O	O	H
Way mistakes are handled	P/O	S	S
Clarity of staff answers	P/O	S	S
Charges clear and explained	O	SIO	SIH
Attitude of bank when lending	P	S	S
Person for questions	P	O	H
Availability of enquiries desk	P	O	H
Return/replace cash card	O	O	H
Queue at branch	P	SIO	H
Opening hours	P	O	H
Appearance of branch	P	SIO	H
Taking time to match product/need	P	SIO	SIH
Staff's product knowledge	P	O	SIH
Overdraft charges	O	O	H
Ease of getting to branch	P	SIO	H
Queues at cash machines	P	SIO	H
Ease of understanding letters	P	SIO	SIH
Informed of progress of applications	P/O	SIO	H
Relevant direct mail	O	SIO	H
Telephones answered quickly	P	O	H
Getting right person on phone	P	O	SIH
Speed of mortgage confirmation	P	SIO	H

Source: Blanchard & Galloway (1994)

Parasuraman *et al* (1990) points out that while reliability is largely concerned with the service **outcome**, tangibles, responsiveness, assurance and empathy are more concerned with the service **process**. He reported in his quantitative

research that regardless of the service being studied, customers have always favoured reliability when asked to indicate the relative importance of the five dimensions in judging service.

Zeithaml *et al.* (1990) also maintained that the “highest” expectation is reliability. “Reliability of service comes in first regardless of how we measure salience, or which specific service we study”. This has led them to the conclusion that because reliability scores the highest, it must be the most important.

However, Johnson & Mathews (1997) found that “Security” comes out as the highest service quality expectation. Other research undertaken in the UK has also identified this discrepancy. For example, Mathews (1995) finds that reliability does not come out as the most important expectation score, while Berry *et al.* (1985) and Johnston (1995) identified responsiveness as an important factor.

2.6.3 Service quality expectations in the retail banking sector

The Parasuraman *et al.* (1990) study asked users of credit cards and retail banking services, amongst users of other products/ services, to rate the importance of each service dimensions. The results indicated that reliability of service was the most important requirement of these financial service customers. The second most important requirement for credit card customers was responsiveness and bank customers’ empathy.

However Bitner, Booms & Tetreault (1990) identified employees’ willingness to respond to a problem and their employees’ responsiveness to customer needs as key factors in service quality. Avkiran (1994), in a study of an Australian trading bank, found elements of credibility and responsiveness to be the most important.

According to a study in the UK by Blanchard & Galloway (1994), the breakdown of the SERVQUAL dimensions also show responsiveness as the most important service dimension (Table 4). Johnston (1997) later confirmed this, whom identified responsiveness to be the most important service dimension in the UK retail banking sector.

Table 4: Ranking of SERVQUAL Dimensions by Customers in the Retail Banking Sector

SERVQUAL Dimension	Relative Weight
1. Responsiveness	100
2. Assurance	70
3. Empathy	52
4. Tangibles	47
5. Reliability	44

Source: Blanchard & Galloway (1994)

2.6.4 Conclusion

In summary, the literature suggests that service quality is derived from service expectations, and highlights the importance of service quality as a strategic differentiator in facilitating customer satisfaction and retention. Responsiveness has been shown to be an important factor, supported by previous work from Berry *et al.* (1985), Johnston (1995) and Bitner *et al.* (1990). Furthermore, Avkiran (1994), Blanchard *et al.* (1994), and Johnston (1997) recognise responsiveness as the most important service dimension in the retail banking sector.

Proposition 2: The importance ranking of service dimensions in African retail banking are:

1. Responsiveness
2. Assurance
3. Empathy
4. Tangibles
5. Reliability

2.7 Changes in Service Expectations over Time

Parasuraman *et al* (1994) found that neither expectations nor perceptions of service quality are constant with time, acknowledging that these change with experience. Supporting this, DeCarvalho & Leite (1999) argue that while desired levels (expectations) are generally stable in the short term they do change with accumulated experience. Adding to this, Buttle (1996) recognised that perceptions do change with time and tend to be more situational in nature.

Quality of service is not an absolute concept. Quality of service changes with time, experience and attitude, and can be linked to customer value (Woodruff, 1997).

2.7.1 Conclusion

The literature suggests that perceptions of service quality and related expectations are therefore situational and do change over time.

Proposition 3: Customer service expectations in the African retail banking sector change over time.

2.8 Summary of Research Propositions

In order to assess whether cross-national differences in customer service expectations in the African retail banking sector exist, to determine the relative importance of service attributes in retail banking across Africa, and to assess whether these change over time, propositions based on the research sub-problems and on the literature review were formulated as follows:

2.8.1 Proposition 1

Customer service expectations in retail banking differ significantly between countries in Africa

This proposition is based on the research by Johnson & Mathews (1997), Webster (1989), Davidow & Uttal (1989), Knight (1999), Stauss & Mang (1999), Smith &

Reynolds (2001), Lovelock (1999), and Speece & Pinkaeo (2002) who acknowledge cross-national cultural differences.

2.8.2 Proposition 2

The importance ranking of the service dimensions in African retail banking are:

- 1. Responsiveness**
- 2. Assurance**
- 3. Empathy**
- 4. Tangibles**
- 5. Reliability**

Parasuraman *et al.* (1985, 1988, 1990, 1993, 1994), indicated that quality of service delivered can be classified in five major dimensions, namely; tangibles, reliability, responsiveness, assurance and empathy.

Responsiveness has been shown to be an important factor, supported by previous work from Berry *et al.* (1985), Johnston (1995) and Bitner *et al.* (1990). Furthermore, Avkiran (1994), and Johnston (1997) recognise responsiveness as the most important service dimension in the retail banking sector. This proposition is based on the research by Blanchard & Galloway (1994), who reported that responsiveness was the most critical dimension for retail banks in the UK, followed by assurance, empathy, tangibles, and reliability. The relative importance of these attributes will be determined in the African retail banking context.

2.8.3 Proposition 3

Customer service expectations in the African retail banking sector change over time

This proposition is based on the research by Parasuraman *et al.* (1994), Buttle (1996) and DeCarvalho & Leite (1999), who found that service quality perceptions and related expectations are variable over time.

3 RESEARCH METHODOLOGY

This chapter describes the methodology that will be used to answer the research propositions posed in the previous section. The chapter starts off with a description of the chosen method and its implications for this research. The research design, population description and sample selection are then discussed. This is followed by descriptions of the processes used for data collection, analysis and interpretation. The chapter is concluded with a discussion on validity and reliability of the chosen research method.

3.1 Research Design

This research follows a quantitative research methodology based on the functionalist paradigm in order to ensure consistency between the research methodology and the nature of the study being undertaken.

Quantitative research using nomothetic commitments was best suited for this research as the study follows on from previous empirical data (SERVQUAL, Blanchard & Galloway (1994), which identifies what the key service attributes are in retail banking. Hence a qualitative interpretive approach in order to capture the subject's perspectives is not required. Rather, the objective of the research methodology was to ensure that the outcomes have a greater degree of reliability and objectivity, and are less impressionistic, which can be achieved through the usage of quantitative research (Denzin & Lincoln, 1998).

The measuring instrument was a survey questionnaire adapted from the SERVQUAL model (Parasuraman *et al*, 1994) in order to ensure a valid construct. The output from the adapted questionnaire plus the literature review formed the basis of this research.

A comparative scaling technique applying a partial rank order scale was used in the questionnaire to determine the top three most important service attributes (in order of importance), out of fifteen attributes.

The use of rank ordering of survey items in the questionnaire is suitable since it is both intuitive for respondents and is independent of any particular response scale. However, a disadvantage of rank order scales is the complexity of rigorous analysis (Stacey, 2006). In order to appropriately apply parametric statistics (which assumes interval data), the ordinal data derived from this scaling technique was rescaled using the algorithmic approach to analysing rank ordered survey items (Stacey, 2006). This allowed for a more accurate estimation of the population item means and standard deviations.

The data was collected commercially, commissioned by Barclays Bank PLC. Barclays Bank is one of the largest retail banks in Africa, with branches in twelve African countries.

The data was collected in Q1 2006 and Q4 2006 by Synovate (leading market research consultants). The initial study was conducted under the supervision of the researcher.

Banks, in seeking to provide a high quality service, should identify needs and expectations and establish the way in which customers prioritise them (Blanchard & Galloway, 1994). Parasuraman *et al.* (1990) proposes a model of the determinants of service quality. The model provides a framework for analysing quality failures by identifying the “service gaps” that arise, which cause a mismatch between customer expectation and customer experience (perceived service), shown in Figure 3. This study focuses purely on the understanding and prioritisation of customer service expectations, which forms the fundamental base level of the model.

The SERVQUAL model proposed by Parasuraman *et al.* (1990), as described in the literature review is considered the most widely verified and applicable model and was therefore used as a framework for the questionnaire design and analysing the data. The SERVQUAL model has been applied to South African conditions and found to be generally both valid and reliable (Boshoff & Nel, 1992; Nel *et al.*, 1997).

The questionnaire was adapted from the SERVQUAL dimensions i.e. reliability, tangibles, responsiveness, assurance, and empathy. Table 5 below shows the mapping of the fifteen service attributes to the SERVQUAL dimensions.

Table 5: Mapping of Service Attributes to SERVQUAL Dimensions

SERVQUAL dimensions of Service	Definition		Mapping of the SERVQUAL service dimensions to the questionnaire's 15 service attributes
Tangibles	The appearance of physical facilities, equipment, personnel, and communication material		Appearance of facilities
			Convenient locations
			Provides a welcoming environment
Reliability	The ability to perform the promised service dependable and accurately		Reliability – Able to perform service dependably and accurately
Responsiveness	The willingness to help customers and provide prompt service		Efficient staff
			Shorter queues
			Provides feedback on processes
			Feedback is provided timeously
			Fast response time to information requests
Assurance	The knowledge and courtesy of employees, and their ability to convey trust and confidence. - Competence - Courtesy - Credibility - Security		Friendly Staff
			Good After sales service
			Provides good advice
			Good product knowledge

Empathy	The caring individualised attention provided to the customer. - Understanding - Communication - Access		Focus on building long term relationships
			Understands my personal banking needs

The surveys comprised a structured questionnaire, administered face-to-face using intercept interviews as the primary methodology.

The first part of the questionnaire addressed demographic data which will be used for narrative purposes only.

The second part of the questionnaire used a partial rank order scale, which lists fifteen key service attributes in accordance with the SERVQUAL requirements (Parasuraman *et al*, 1994). Respondents were asked to rank the top three attributes in order of importance.

A partial rank order scale is suitable for hypothesis testing once rescaled using the algorithmic approach presented by Stacey (2006). Furthermore, it was selected in order to avoid respondent fatigue. The task of rank ordering large numbers of items can be unduly onerous for respondents, which has a negative impact on the validity and reliability of the data (Stacey, 2006).

Hypothesis testing using analysis of variance (ANOVA) was used to compare the means of ten different populations; where :

- $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9 = \mu_{10}$
- H_a : At least one pair of means are not equal,

and therefore to accept or reject propositions.

Assumptions:

- The samples must be independent random samples

- The samples must be selected from normally distributed populations
- Populations have the same standard deviations: $\sigma^2_1 = \sigma^2_2 = \sigma^2_3$

3.2 Population and Sample

3.2.1 *Population*

The targeted population for this study was limited to retail banking customers, from the capital cities of the following ten countries and respective banks, listed overleaf:

Table 6: Surveyed Countries and Respective Retail Banks

Country	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5	Bank 6
Botswana	Barclays Bank	First National Bank	Standard Chartered	Stanbic	BBS	
Egypt	Barclays Bank	MISR	NSGB	Citigroup	HSBC	CIB
Ghana	Barclays Bank	Ecobank	Standard Chartered	Ghana Commercial Bank	SSB	
Kenya	Barclays Bank	Standard Chartered	KCB	Co-Operative Bank	National Bank of Kenya	
Mauritius	Barclays Bank	Mauritius Commercial Bank	State Bank Mauritius	HSBC	First City Bank	
Seychelles	Barclays Bank	Seychelles Savings Bank	Nouvobanq	MCB		
Tanzania	Barclays Bank	National Micro-financial Bank	Standard Chartered	Co-operative Rural Development Bank	National Bank of Commerce	
Uganda	Barclays Bank	DFCU Bank	Standard Chartered	Stanbic	Nile Bank	
Zambia	Barclays Bank	Standard Chartered	Stanbic	Zanaco	Citibank	
Zimbabwe	Barclays Bank	Standard Chartered	Stanbic	Zimbabwe Amalgamated Banking Group	Zimbank	Jewel Bank

Access to the primary population was achieved by selected in-country market research consultancy companies specialising in the financial sector. In-country research vendors were coordinated from South Africa by a leading market research group.

3.2.2 Sample

A minimum sample of 75 surveys in Q1 2006 and 200 surveys in Q4 2006 with retail banking customers in each country was carried out for the purposes of obtaining data for this study.

Table 7: Sample Size by Country

Country	Total No. Interviews Q1 2006	Total No. Interviews Q4 2006
Botswana	300	540
Egypt	150	315
Ghana	250	490
Kenya	300	550
Mauritius	200	380
Seychelles	75	200
Tanzania	150	250
Uganda	150	330
Zambia	250	490
Zimbabwe	250	490
Total	2075	4035

A random sample of retail banking customers was selected in each country by bank branch intercepts. The above mentioned main retail banks in each country were sampled.

Sample Selection

The use of some basic selection rules guided the intercepts. The interviews were done mainly during the week. The day was then divided into time slots and a time slot was randomly selected to start interviewing in. A person was intercepted every n th minute for an interview to ensure randomness.

Sampling Substitution:

If a respondent was unwilling / unavailable to assist in the case of the intercept interviewing, the interviewer was instructed to interview the next respondent exiting the branch.

Sampling Contingency:

Some over-sampling was done for the surveys in order to meet the required samples for each country. This catered for questionnaires which are incomplete. This was managed with local suppliers to ensure standard errors (at 90% level of confidence) at regional level.

Sampling Error

The phenomenon of sampling error is that there is unavoidable and random error or difference between the true (unknown) population parameters and those parameters which have been estimated or inferred from the sample (Stacey, 2006). In this case, the larger sample sizes ensured a better representation of the population as a whole and hence reduce the potential for sampling error.

3.3 Data Collection

Since customer databases were not available for the envisaged samples, it was necessary to use face-to-face interviews as a means of contact. This technique allowed for a higher response rate and is more convenient for the respondent. However, apart from the economical and logistical disadvantages of this technique, it should be kept in mind that some respondents would still give biased responses when face-to-face with a researcher. Furthermore, language translation may reduce face validity.

Face-to-face intercept interviewing was conducted in every country. Respondents were recruited in banking halls or as they leave the premises of the above mentioned banks by first intercepting them and then conducting the face-to-face

interview. A short structured questionnaire not longer than 15 minutes was used. Please refer to Appendix 1 which contains an outline of the questionnaire.

The following quality controls were put in place;

- Face-to-face briefings were done in every country; project representatives were encouraged to meet fieldworkers.
- Pilot interviews were conducted in each country
- Five random questionnaires were faxed to Synovate/ Barclays South Africa to check that questions are answered correctly and data input is correct
- Test data files were sent to South Africa after the first few interviews for centralised checking of data input
- 20% telephonic back checks were conducted in every country
- Coding was centralised in South Africa to produce a standardised code frame
- The interview / information quality was greatly enhanced as the interviews could be conducted in English or the local language, depending on the respondent's preference. The questionnaires were translated into the languages depicted in the table below:

Table 8: Questionnaire Translation by Country

Country	Translation
Botswana	English / Setswana
Egypt	Arabic
Ghana	English / Twi
Kenya	English / Kiswahili
Mauritius	English / French and Mauritian Creole
Seychelles	English / Seychelles Creole
Tanzania	English / Kiswahili
Uganda	English / No translation
Zambia	English / No translation
Zimbabwe	English / No translation

- Research was conducted in accordance with the code of ethics prescribed by the European Society for Opinion and Marketing Research (ESOMAR), and the South African Marketing research Association (SAMRA).

3.4 Data Analysis and Interpretation

Respondents were required to rank order (in order of importance) the top three most important service attributes relating to their bank, out of 15 service attributes in total. The data was summarised by tabulating the frequency (and proportion) of occurrence of each preference permutation.

Rank ordered data are only ordinal in nature because respondents give no indication of the magnitude of the difference between consecutively ranked items. However the use of parametric techniques using at least interval data are required to compare mean rankings of the partially rank ordered survey items.

In order to overcome this, the algorithmic approach presented by Stacey (2006) was used to estimate underlying parameters (means and standard deviations) of survey items that have been partially rank ordered by respondents.

This approach enables researchers to take advantage of partial rank ordering techniques that reduce respondent fatigue for large numbers of survey items, while retaining a high degree of analytical rigour. The algorithm (Shotgun stochastic parameter estimation algorithm) iteratively and asymptotically estimates the population means and standard deviations of the 15 survey items from which the observed data sample is drawn.

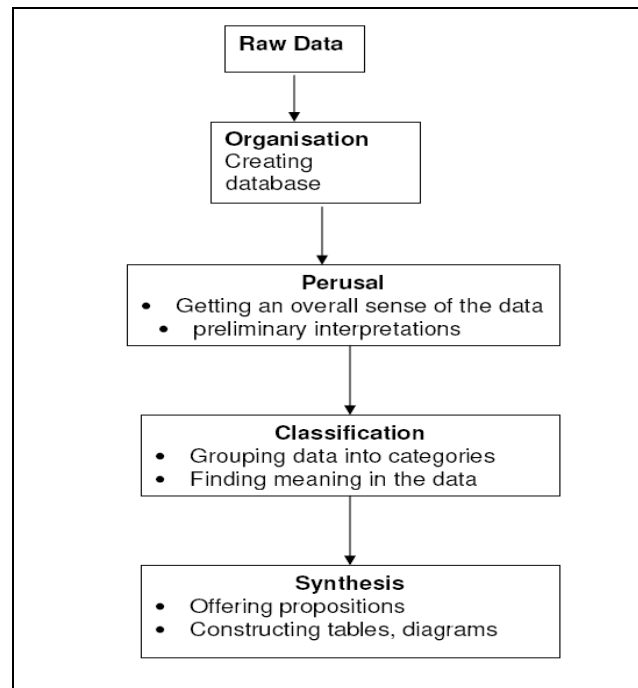
Once the mean and standard deviations are derived, the proposed methodology makes use of hypothesis ANOVA testing, t-tests and importance ranking to determine whether cross-national differences in service expectations exist, and what service attributes proposed by retail banks are considered most important to customers. Hypothesis t-testing is used to determine whether service expectations are constant over time.

In summary, data analysis was conducted as follows:

- Tables were developed to capture response frequencies (and proportion) of occurrence of each preference permutation
- The ordinal data derived from this scaling technique (partial rank order) was rescaled using the algorithmic approach to analysing partial rank ordered survey items (Stacey, 2006). This allowed for the estimation of the population item means and standard deviations in order to perform hypothesis testing
- Hypothesis ANOVA testing was used to understand if cross national differences exist in service expectations
- Importance ranking of the question was conducted
- Hypothesis t-tests were then conducted on the standardised means. This analysis identified what service attributes are significant within each country, delineating what the differences and similarities in significant service expectations are.
- Two sample hypothesis t-tests were carried out for each attribute in order to determine the significance of differences between country means over time

The above steps were integrated with Creswell's data analysis spiral as described in Leedy & Ormrod (2001:161).

Figure 5: Data Analysis Spiral



Source: Creswell (1998)

3.5 Validity and Reliability

Validity is concerned with whether the instrument (in this case surveys) “measures what it is supposed to measure” (Leedy & Ormrod, 2001: 31) and whether it will lead to valid conclusions about cross-national service expectations in retail banking. Since quantitative survey research was conducted, the following issues around validity are evident. These issues are addressed below in the discussion on the various types of validity.

3.5.1 External validity

External validity refers to generalisability, i.e. the ability for the research to be generalised across persons, settings and times.

Large sample sizes were used in conjunction with a random sampling methodology which is probability based (Leedy & Ormrod, 2001), thus it is possible to generalise the results of the study.

The author did not have direct control over the collection of the data, which may be a limitation in the research. However quality controls were put in place (as discussed above) in order to ensure validity.

3.5.2 Internal validity

Internal validity refers to the extent to which the instrument allows inferences about the causal relationships between data elements (Leedy & Ormrod, 2001). There are various types of internal validity, namely: content validity, construct validity and criterion-related validity (Leedy & Ormrod, 2001). Content and construct validity is relevant and therefore discussed here.

Content validity was addressed by ensuring that there were adequate questions to completely cover all the relevant aspects identified in the literature review.

Questionnaire wording / understanding across different cultural boundaries may weaken face validity. This was addressed by translating and conducting face-to-face interviews in English or the home language, depending on the respondent's choice, in an effort to reduce misinterpretations.

Construct validity was addressed by means of questionnaire piloting. This ensured that constructs were clear, unambiguous and did not result in bias as a result of phrasing. Each construct is developed to add value to the survey, and is selected to ensure convergence with the literature review.

The task of rank ordering large numbers of items can be unduly onerous for respondents, which has a negative impact on the validity and reliability of the data (Stacey, 2006). This was addressed by using partial rank ordering in the questionnaire in order to reduce respondent fatigue.

3.5.3 Reliability

Reliability is defined as the extent to which similar research conducted in future will result in similar outcomes (Leedy & Ormrod, 2001).

Equivalence: bias may be introduced by contact between researcher and respondent. This was reduced by using a structured, closed questionnaire.

By constructing the survey questionnaire derived from the SERVQUAL model, as well as the literature review, it was possible to enhance internal consistency through the use of rank order scales (Leedy & Ormrod 2001) rather than content analysis resulting from open questions. Errors of equivalence and stability were also reduced since responses were selected from a limited range of clearly defined service attributes.

The quality controls (discussed above) also ensured that the research is administered consistently throughout all the countries.

A quantitative research methodology using a random sampling technique and adequate sample sizes reduced the potential for sampling error and ensured that the outcomes have a greater degree of reliability. Furthermore, by rescaling the ordinal data using the algorithmic approach, the potential for type II error was reduced.

A possible limitation was that the sample chosen was more heavily weighted towards Barclay's customers vs. the other bank's customers, since the study was commissioned by Barclays PLC. In addition, the study was only conducted in the capital cities of each country.

4 PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

The results of the analysis are presented in this chapter. A more detailed breakdown of the results is presented in Appendix B.

Section 4.1 provides a description of the demographic data. Thereafter, each research problem is addressed. Section 4.2 addresses whether cross national differences exist, by way of ANOVA testing. Section 4.3 discusses the relative importance of service quality dimensions, using rank order and t-testing. This is segmented by major service dimensions, individual service attributes, and by country. The chapter is concluded with a discussion on changes in service expectations over time (section 4.4), which tests for differences between two means using a two sample t-test for Q1 2006 and Q4 2006.

4.1 Demographic Data

The distribution of respondents by country for Q1 and Q4 2006 is given in Figure 6 and Figure 7. Respondent proportions were not weighted according to country population size. Seychelles represents the smallest proportion of respondents for both surveys.

Sample sizes for all countries were large enough to ensure adequate representation of the total population, thus reducing the potential for sampling error.

A segmentation of respondent representation by Barclays bank vs. other banks is given in Figure 8. This shows that the sample chosen is more heavily weighted towards Barclay's customers vs. the other bank's customers.

Figure 6: Respondent Representation by Country, Q1 2006

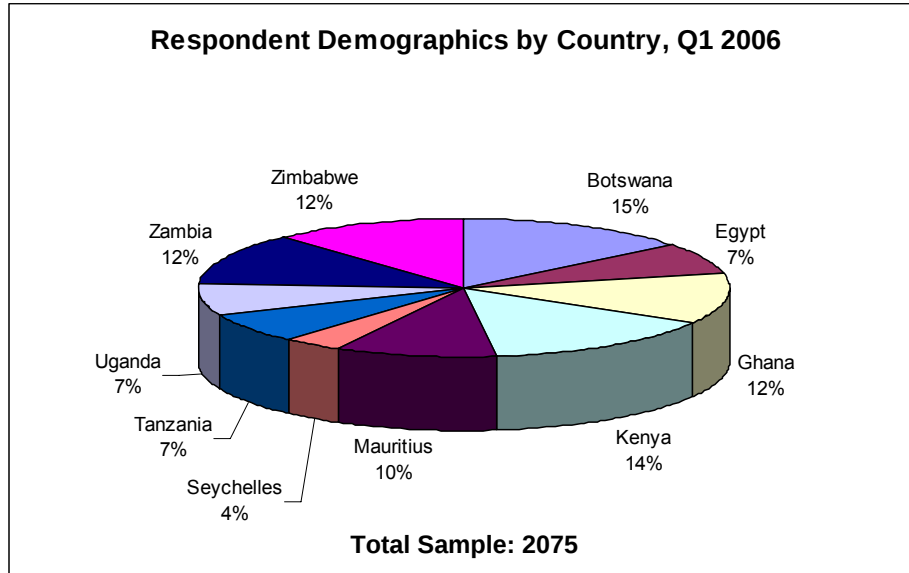


Figure 7: Respondent Representation by Country, Q4 2006

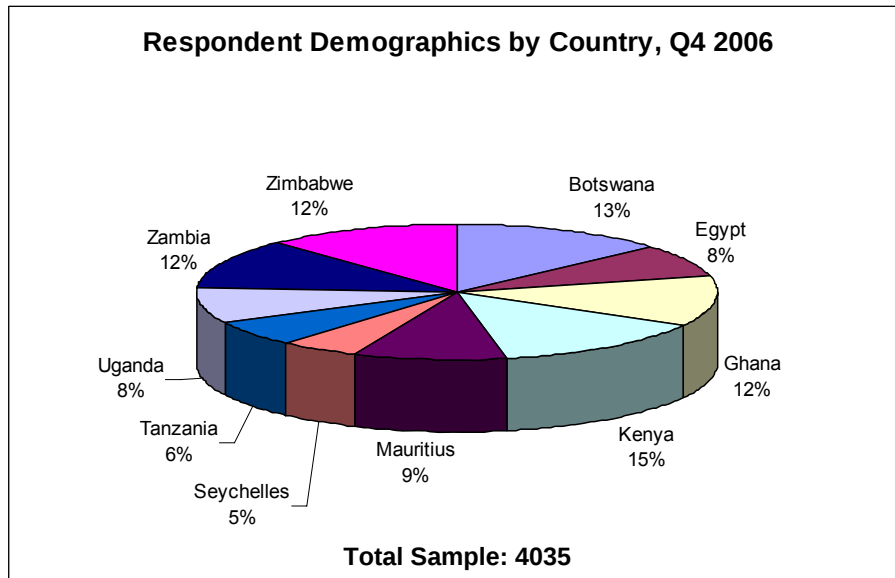
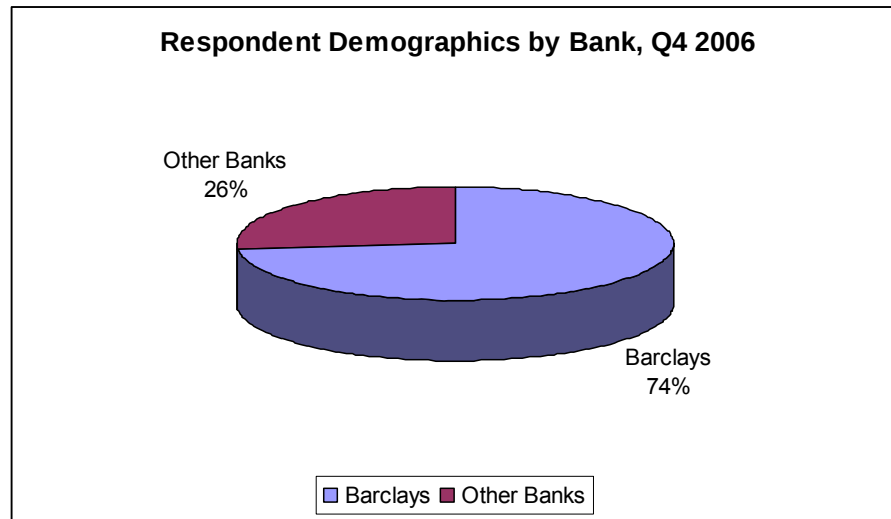


Figure 8: Respondent Representation by Bank, Q4 2006



4.2 Cross National Differences

For multinational companies, it is becoming increasingly important to determine whether there are differences across countries in service expectations, and what form these differences take.

Users of retail banking services were read a list of 15 service attributes relating to their bank, and asked to rank the top three most important service attributes. The data was summarised by tabulating the frequency (and proportion) of occurrence of each preference permutation, as illustrated in Appendix C.

In order to apply parametric testing, the ordinal data derived from the partial rank order was rescaled using the algorithmic approach to analysing partial rank ordered survey items (Stacey, 2006). The shotgun stochastic parameter estimation algorithm iteratively and asymptotically estimates the population means and standard deviations of the 15 survey items from which the observed data sample was drawn.

This allowed for the estimation of underlying parameters (population item means and standard deviations) of partially ranked survey items in order to perform hypothesis testing.

ANOVA testing on the rescaled standardised means and standard deviations was used to determine if there are differences across the ten African countries in the perceived importance for each attribute.

The results are based on the assumptions that each population is approximately normally distributed and there are equal population variances. Central Limit theorem can be used as the basis for normality due to large sample sizes. The samples were independent and selected at random. A significance level of 5% was used.

The findings in Table 9 below show that in all cases (15 attributes), the zero hypothesis is reject based on the low p values. Thus, there is sufficient evidence to indicate that for every service attribute, one or more of the population (country) means are not equal to the others. Every attribute had some significant difference between countries. This implies that different cultural groups give different importance to service quality dimensions.

This finding **supports** the proposition that customer service expectations in retail banking differ significantly between countries in Africa. It is therefore critical to take cross-national differences into consideration when designing and implementing a marketing strategy for multinational companies. In order to achieve this, country-specific customer expectations must be investigated and prioritised as a first step towards improving service quality.

Table 9: Results of One-Way ANOVA, Q4 2006

Service Attributes	Sample Means										P Value
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim	
1. Efficient staff	1.101	0.988	0.800	0.779	0.518	0.882	0.864	0.836	0.905	0.769	0.000
2. Shorter queues	0.416	0.925	0.403	0.249	0.409	0.259	0.544	0.278	0.245	0.399	0.000
3. Convenient locations	0.015	0.161	0.354	0.481	-0.065	-0.068	0.285	0.475	0.419	0.318	0.000
4. Friendly staff	0.022	0.117	0.586	0.069	0.299	0.019	0.480	0.203	0.191	-0.141	0.000
5. After sales service	-0.313	0.048	-0.360	-0.282	0.043	0.513	-0.453	-0.343	-0.201	-0.165	0.000
6. Response time to info requests	-0.066	0.428	0.165	0.322	0.303	0.510	-0.119	0.094	0.037	0.167	0.000
7. Reliability	0.419	0.066	0.234	0.761	0.114	-0.022	0.097	0.342	0.422	0.610	0.000
8. Appearance of facilities	-0.357	-0.477	-0.303	-0.250	-0.173	-0.370	-0.168	-0.375	-0.326	-0.571	0.000
9. Building long term relationships	-0.356	-0.222	-0.249	0.088	-0.257	-0.254	-0.224	-0.190	0.030	0.018	0.000
10. Understands personal banking needs	0.236	0.352	-0.080	0.383	0.173	0.176	-0.299	0.304	0.127	0.438	0.000
11. Provides good advice	-0.232	-0.348	-0.255	-0.166	0.063	0.269	-0.399	-0.324	-0.172	-0.318	0.000
12. Provides a welcoming environment	-0.487	-0.810	-0.447	-0.542	-0.177	-0.266	-0.299	-0.672	-0.288	-0.799	0.000
13. Provides feedback on processes	-0.178	-0.204	-0.241	-0.190	-0.169	-0.044	-0.004	-0.334	-0.585	0.089	0.000
14. Feedback is provided timeously	-0.181	-0.716	-0.167	-1.023	-0.534	-0.838	0.059	0.109	-0.446	-0.269	0.000
15. Good product knowledge	-0.040	-0.309	-0.440	-0.677	-0.547	-0.766	-0.364	-0.404	-0.359	-0.546	0.000

Note assumptions:

- The data has been standardised, therefore the overall mean = 0, and the overall standard deviation = 1
- Each of the samples are drawn from a normal population
- Central Limit theorem can be used as the basis for normality due to large sample sizes
- The samples are independent and selected at random
- Variance (or standard deviation) of the items (populations) are equal
- Significance level: 5% ($\alpha = 0.05$)

4.3 Importance Ranking of Service dimensions and Attributes

In order to better understand what form these cross-national differences take, the following tests were carried out in order to highlight the similarities and differences in customer service expectations.

Respondents ranked in descending order (i.e. first most important, second most important and third most important) the top three most important service attributes relating to their bank, out of 15 service attributes in total. The data was summarised by tabulating the frequency (and proportion) of occurrence of each preference permutation, as illustrated in Appendix C.

These results were converted into standardised sample means using the Stochastic Search Algorithm (Stacey, 2006). The data was then ranked by service attribute and the underlying service dimension. In the ranking, the higher the mean, the more important that aspect of service delivery is to the respondents. Negative means have a less than average importance. An overall mean was derived from the individual country means. No weighting was applied to the overall mean in order to give each country equal importance.

The individual attributes have been clustered into the underlying SERVQUAL dimensions, and the overall mean for all countries is presented in Table 10 below. Figure 9 represents positive overall means and respective service dimensions graphically.

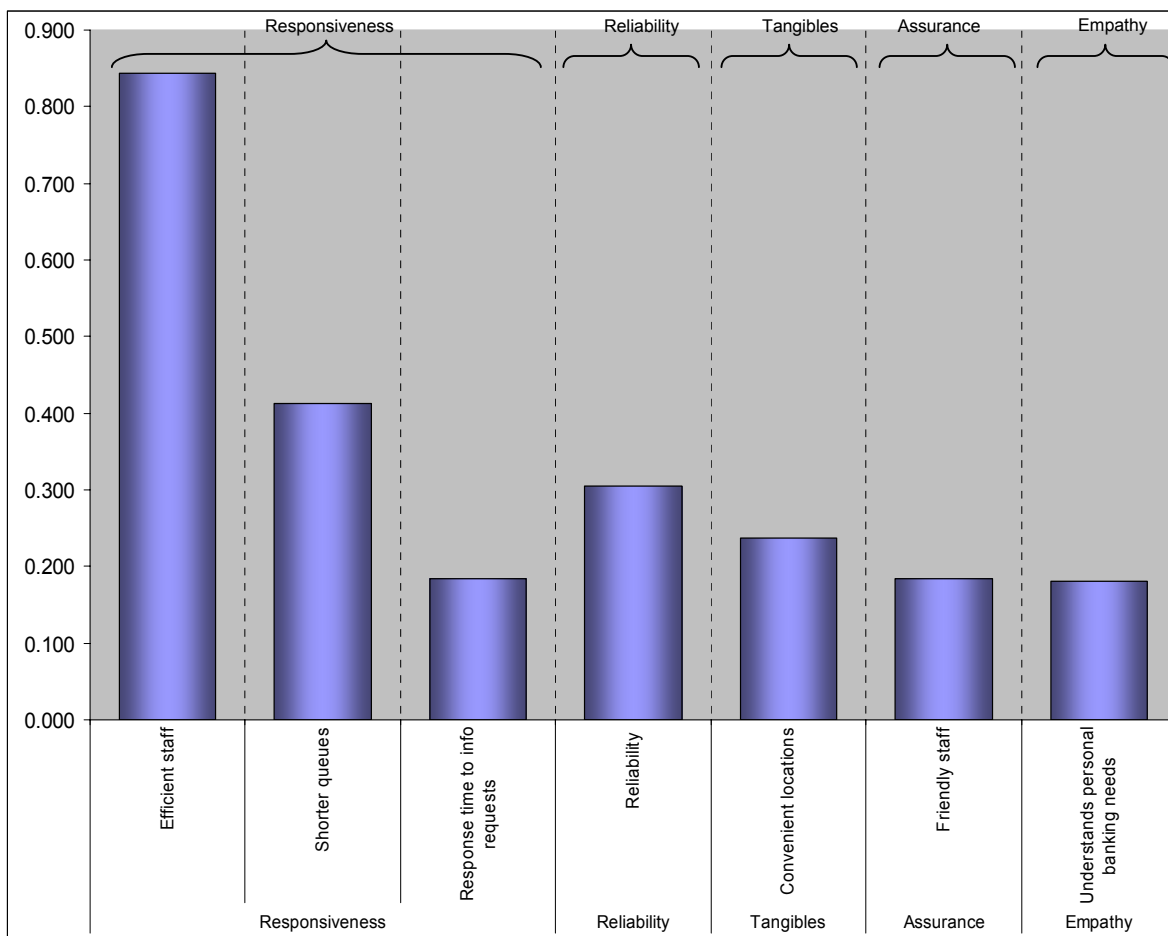
Table 10: Importance Ranking of Overall Means, by Service Dimensions and Attributes, Q4 2006

Dimensions	Service Attributes	Overall Mean	Rank: Attribute	Rank: Dimension
Responsiveness	Efficient staff	0.844	1	1
	Shorter queues	0.413	2	
	Provides feedback on processes	-0.186		
	Feedback is provided timeously	-0.401		
	Response time to info requests	0.184	5	
Reliability	Reliability	0.304	3	2
Tangibles	Appearance of facilities	-0.337		3
	Convenient locations	0.237	4	
	Provides a welcoming environment	-0.479		
Assurance	Friendly staff	0.184	5	4
	After sales service	-0.151		
	Provides good advice	-0.188		
	Good product knowledge	-0.445		
Empathy	Building long term relationships	-0.161		5
	Understands personal banking needs	0.181	6	

Note:

- The overall mean was derived from the individual country means
- For the overall mean, no weighting was applied in order to give each country equal importance
- The data has been standardised, therefore the overall mean = 0, and the overall standard deviation = 1
- The higher the mean, the more important that aspect of service delivery is to the respondents
- Negative means are inconsequential since they represent a less than average importance

Figure 9: Importance Ranking of Positive Overall Means by Service Dimension, Q4 2006



Note:

- Negative means have been excluded since they represent a less than average importance
- The overall mean was derived from the individual country means
- No weighting was applied to the overall mean in order to give each country equal importance

Overall results (for Africa)

Results from the analysis of the SERVQUAL **dimensions** clearly indicate that “responsiveness” is the most important service requirement for retail banking customers, followed by “reliability of service”, “tangibles”, “assurance” and “empathy”. This is based on the visual interpretation from Figure 9, where it is evident that most of the items relating to “responsiveness” have the largest values. We can therefore assume that “responsiveness” has the most important rating.

Analysis of the individual **attributes** indicate that staff efficiency is by far the most important service criteria for retail banking customers in Africa. Shorter queues, service reliability and convenient locations are the second, third and fourth most important attributes respectively.

Dimension “Responsiveness”

The underlying service dimension “responsiveness” is essentially the time dimension of service quality, and reflects issues relating to the banks willingness to help customers and provide prompt service.

Three out of five “responsiveness” attributes are ranked in the top 5. It is interesting to note that respondents assign considerably more importance to staff efficiency than any other attribute. On average, respondents perceive staff efficiency to be twice as important in comparison to the second highest ranked attribute (shorter queues).

“Responsiveness” as a dimension is perceived to be of serious importance, ranked first out of the five service dimensions. This reflects the statements in the literature review, which indicate that “responsiveness” would attract the highest rating in the retail banking sector.

While responsiveness is typically process based, one could argue that in this case both attributes driving this dimension relate to the time aspect of service delivery (rather than willingness to help). Thus, this dimension is more outcomes based, and could be classified as an objective hard issue.

Dimension “Reliability”

The underlying service dimension “reliability” reflects issues relating to the bank’s ability to perform the promised service dependably and accurately.

While the literature review showed that “reliability” as a dimension is typically ranked fifth in a retail banking environment, the research results show that in an African environment, this dimension is ranked second most important by users of retail banking services.

Reliability is outcome based (Gronroos, 1998) and can be classified as an objective hard issue since it can be much more readily identified and specified to that of soft and subjective “relational” issues. This implies that addressing the hard objective issues could more readily provide, and monitor, a high quality service in a fairly prescriptive and reproducible manner. (Blanchard & Galloway, 1994)

Dimension “Tangibles”

The underlying service dimension “tangibles” reflects issues relating to the appearance of physical facilities, location and personnel.

Respondents identified convenient locations to be very important, however they were less concerned with appearance of facilities and a welcoming environment, which received a below average rating.

The “tangibles” dimension is ranked third, whilst the literature review suggests this dimension is typically ranked fourth.

Dimension “Assurance”

The underlying service dimension “assurance” reflects issues relating to the knowledge and courtesy of employees, and their ability to convey trust and confidence i.e. friendly staff, good advice, product knowledge and after sales service.

Of all the “assurance” attributes, respondents only perceived friendly staff to be of some importance (slightly above average), whilst good advice, product knowledge and after sales service was of little importance.

Contrary to the proposition which suggests that “assurance” is the second most important service attribute in retail banking, the results show that “assurance” is only ranked fourth in an African context.

Dimension “Empathy”

The underlying service dimension “empathy” reflects issues relating to the caring, individualised attention provided to the customer; i.e. understanding the customer’s personal banking needs, and building long term relationships.

Understanding personal banking needs was the only “empathy” attribute to be of some importance.

Once again, the relative importance of this dimension was not consistent with previous research. The literature review showed that “empathy” is typically ranked third in a retail banking environment. The results indicate that in an African context, this dimension is the least important, ranked fifth by users of retail banking services.

Country-specific results

When analysing the results by country (Table 11), clear similarities and differences emerge. Efficient staff was rated as the most important service attribute for all ten countries. Thereafter, the second and third most important service attributes varied significantly by country.

By implication, “responsiveness” is therefore the most important dimension for every country. However subsequent rankings of service dimensions also vary by country.

Table 11: Importance ranking of standardised means, by country

	Service Attributes	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim	Overall Mean
Responsiveness	Efficient staff	1.101	0.988	0.800	0.779	0.518	0.882	0.864	0.836	0.905	0.769	0.844
	Shorter queues	0.416	0.925	0.403	0.249	0.409	0.259	0.544	0.278	0.245	0.399	0.413
	Provides feedback on processes	-0.178	-0.204	-0.241	-0.190	-0.169	-0.044	-0.004	-0.334	-0.585	0.089	-0.186
	Feedback is provided timeously	-0.181	-0.716	-0.167	-1.023	-0.534	-0.838	0.059	0.109	-0.446	-0.269	-0.401
	Response time to info requests	-0.066	0.428	0.165	0.322	0.303	0.510	-0.119	0.094	0.037	0.167	0.184
Reliability	Reliability	0.419	0.066	0.234	0.761	0.114	-0.022	0.097	0.342	0.422	0.610	0.304
Tangibles	Appearance of facilities	-0.357	-0.477	-0.303	-0.250	-0.173	-0.370	-0.168	-0.375	-0.326	-0.571	-0.337
	Convenient locations	0.015	0.161	0.354	0.481	-0.065	-0.068	0.285	0.475	0.419	0.318	0.237
	Provides a welcoming environment	-0.487	-0.810	-0.447	-0.542	-0.177	-0.266	-0.299	-0.672	-0.288	-0.799	-0.479
Assurance	Friendly staff	0.022	0.117	0.586	0.069	0.299	0.019	0.480	0.203	0.191	-0.141	0.184
	After sales service	-0.313	0.048	-0.360	-0.282	0.043	0.513	-0.453	-0.343	-0.201	-0.165	-0.151
	Provides good advice	-0.232	-0.348	-0.255	-0.166	0.063	0.269	-0.399	-0.324	-0.172	-0.318	-0.188
	Good product knowledge	-0.040	-0.309	-0.440	-0.677	-0.547	-0.766	-0.364	-0.404	-0.359	-0.546	-0.445
Empathy	Building long term relationships	-0.356	-0.222	-0.249	0.088	-0.257	-0.254	-0.224	-0.190	0.030	0.018	-0.161
	Understands personal banking needs	0.236	0.352	-0.080	0.383	0.173	0.176	-0.299	0.304	0.127	0.438	0.181

Note:

- The higher the mean, the more important that aspect of service delivery is to the respondents
- Negative means are inconsequential since they represent a less than average importance
- Positive means are represented in black. Negative means are represented in grey.
- The data has been standardised, therefore the overall mean = 0, and the overall standard deviation = 1
- The overall mean was derived from the individual country means
- No weighting was applied to the overall mean in order to give each country equal importance

In summary, responsiveness was the most important dimension for Africa overall, driven by staff efficiency and shorter queues. The results also suggest that relational issues surrounding assurance and empathy are of less importance in an African context.

The key attributes identified (staff efficiency, shorter queues, and reliability) tend to be more outcome based and can be classified as objective hard issues since they can be much more readily identified and specified to that of soft and subjective “relational” issues. This implies that addressing the hard objective issues could more readily provide, and monitor, a high quality service in a fairly prescriptive and reproducible manner. (Blanchard & Galloway, 1994)

Furthermore, cross-country analysis shows partial indifferences in the relative importance regarding dimensions and attributes. Staff efficiency/ responsiveness is the most important attribute/ dimension for each and every country, indicating that partial similarities of relative importance across countries do exist.

This would suggest that efforts to increase speed of processing information and customers are likely to have an important and positive effect on customer satisfaction.

4.3.1 Significance of Attribute Means

Hypothesis t-tests were used to determine the significance of each attribute, for the overall mean and for each country. The tests show if there is a significant difference from 0 for each attribute. If there is, then the attribute is significantly above average importance and thus should be taken into consideration.

The results are based on the assumptions that each population is approximately normally distributed and there are equal population variances. Central Limit theorem can be used as the basis for normality due to large sample sizes. The samples were independent and selected at random. A one tail t-test was used at a significance level of 5%. Therefore, if the p value is less than 0.05, the zero hypothesis is rejected, and the attribute is of significant importance. These results are presented in Table 12, where significant attributes are represented in black, and insignificant attributes are represented in grey.

Significant attributes: for Africa

For the overall mean of each service attribute, the findings in Table 12 show that only seven (out of fifteen) service attributes proved to be of significant importance ($p < 0.05$). These were:

- efficient staff
- shorter queues
- fast response times
- service reliability
- convenient locations

- friendly staff
- understanding personal banking needs

Conversely, insignificant attributes with a negative overall mean or a p value greater than 0.05 included:

- Appearance of facilities
- Welcoming environment
- After sales service
- Good advice
- Good product knowledge
- Feedback on processes,
- Feedback provided timeously,
- Building long term relationships

Significant attributes: by country

When delineating what the similarities in significant attributes are across the ten countries, only efficient staff and shorter queues were significant for each and every country, based on the low p values for these two attributes in Table 12.

Appearance of facilities, providing a welcoming environment and good product knowledge proved to be insignificant attributes for all ten countries.

On average, the countries tended to only have 6 significant attributes, out of the 15 total attributes.

Table 12: Significance of Attribute Means by Country, Q4 2006

	Service Attributes (Q4 2006)	Bots		Egypt		Ghana		Kenya		Maur	
		$\bar{X}$	P Value	$\bar{X}$	P Value	$\bar{X}$	P Value	$\bar{X}$	P Value	$\bar{X}$	P Value
Responsiveness	Efficient staff	1.101	0.000	0.988	0.000	0.800	0.000	0.779	0.000	0.518	0.000
	Shorter queues	0.416	0.000	0.925	0.000	0.403	0.000	0.249	0.000	0.409	0.000
	Provides feedback on processes	-0.178	NA	-0.204	NA	-0.241	NA	-0.190	NA	-0.169	NA
	Feedback is provided timeously	-0.181	NA	-0.716	NA	-0.167	NA	-1.023	NA	-0.534	NA
	Response time to info requests	-0.066	NA	0.428	0.000	0.165	0.000	0.322	0.000	0.303	0.000
Reliability	Reliability	0.419	0.000	0.066	0.092	0.234	0.000	0.761	0.000	0.114	0.010
Tangibles	Appearance of facilities	-0.357	NA	-0.477	NA	-0.303	NA	-0.250	NA	-0.173	NA
	Convenient locations	0.015	0.344	0.161	0.001	0.354	0.000	0.481	0.000	-0.065	NA
	Provides a welcoming environment	-0.487	NA	-0.810	NA	-0.447	NA	-0.542	NA	-0.177	NA
Assurance	Friendly staff	0.022	0.279	0.117	0.009	0.586	0.000	0.069	0.032	0.299	0.000
	After sales service	-0.313	NA	0.048	0.164	-0.360	NA	-0.282	NA	0.043	0.191
	Provides good advice	-0.232	NA	-0.348	NA	-0.255	NA	-0.166	NA	0.063	0.101
	Good product knowledge	-0.040	NA	-0.309	NA	-0.440	NA	-0.677	NA	-0.547	NA
Empathy	Building long term relationships	-0.356	NA	-0.222	NA	-0.249	NA	0.088	0.009	-0.257	NA
	Understands personal banking needs	0.236	0.000	0.352	0.000	-0.080	NA	0.383	0.000	0.173	0.000

	Service Attributes (Q4 2006)	Seych		Tanz		Ugan		Zam		Zim	
		$\bar{X}$	P Value	$\bar{X}$	P Value	$\bar{X}$	P Value	$\bar{X}$	P Value	$\bar{X}$	P Value
Responsiveness	Efficient staff	0.882	0.000	0.864	0.000	0.836	0.000	0.905	0.000	0.769	0.000
	Shorter queues	0.259	0.000	0.544	0.000	0.278	0.000	0.245	0.000	0.399	0.000
	Provides feedback on processes	-0.044	NA	-0.004	NA	-0.334	NA	-0.585	NA	0.089	0.014
	Feedback is provided timeously	-0.838	NA	0.059	0.149	0.109	0.016	-0.446	NA	-0.269	NA
	Response time to info requests	0.510	0.000	-0.119	NA	0.094	0.031	0.037	0.191	0.167	0.000
Reliability	Reliability	-0.022	NA	0.097	0.045	0.342	0.000	0.422	0.000	0.610	0.000
Tangibles	Appearance of facilities	-0.370	NA	-0.168	NA	-0.375	NA	-0.326	NA	-0.571	NA
	Convenient locations	-0.068	NA	0.285	0.000	0.475	0.000	0.419	0.000	0.318	0.000
	Provides a welcoming environment	-0.266	NA	-0.299	NA	-0.672	NA	-0.288	NA	-0.799	NA
Assurance	Friendly staff	0.019	0.383	0.480	0.000	0.203	0.000	0.191	0.000	-0.141	NA
	After sales service	0.513	0.000	-0.453	NA	-0.343	NA	-0.201	NA	-0.165	NA
	Provides good advice	0.269	0.000	-0.399	NA	-0.324	NA	-0.172	NA	-0.318	NA
	Good product knowledge	-0.766	NA	-0.364	NA	-0.404	NA	-0.359	NA	-0.546	NA
Empathy	Building long term relationships	-0.254	NA	-0.224	NA	-0.190	NA	0.030	0.237	0.018	0.327
	Understands personal banking needs	0.176	0.003	-0.299	NA	0.304	0.000	0.127	0.001	0.438	0.000

Note assumptions:

- One tail t-test, Significance level: 5% ($\alpha = 0.05$). $\bar{X}$ = mean.
- Significant attributes are represented in black. Insignificant attributes are represented in grey
- NA (Not Applicable): The P value results relating to negative means would imply the attribute is insignificant and therefore not applicable, since we are testing for above average (0) importance using a one tail t-test.
- The data has been standardised, therefore the overall mean = 0, and the overall standard deviation = 1

The above results highlight some of the key determinants of service quality in Africa, and provide managers of multinational companies with a framework of similarities that exist across countries when assessing service quality.

Significant dimensions: by country

Based on Table 12, the significant service attributes and respective service dimensions are shown graphically for each country, in Figure 10 to Figure 19 below, (ranked by dimensional importance).

Analysis of significant dimensions by country demonstrates the following similarities and differences. As mentioned previously, the most critical dimension “responsiveness” is consistently the same for all countries, and supports the proposition which proposes that “responsiveness” is the most important dimension. Thereafter, the dimensional rankings vary by country, showing minor similarities.

Kenya and Zambia followed the same service dimensional ranking as the overall ranking for Africa i.e. (1) responsiveness, (2) reliability, (3) tangibles, (4) assurance, and (5) empathy.

Ghana and Tanzania were the only other two countries displaying an identical dimensional ranking i.e.: (1) responsiveness, (2) assurance, (3) tangibles, (4) reliability. None of the African countries followed the full ranking proposed in the second proposition: (1) responsiveness, (2) assurance, (3) empathy, (4) tangibles, (5) reliability.

While partial similarities are evident, it is clear that cross-national differences across most countries are prevalent. Furthermore, “responsiveness” being the most important dimension is the only similarity between African countries and the UK.

Figure 10: Significant Service Dimensions and Attributes for Botswana

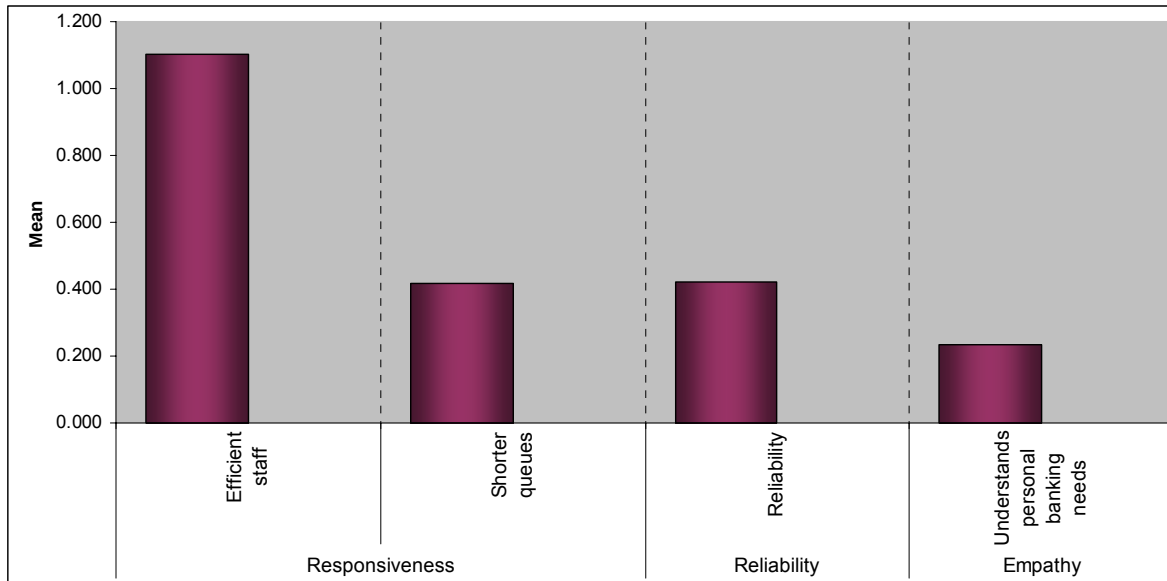


Figure 11: Significant Service Dimensions and Attributes for Egypt

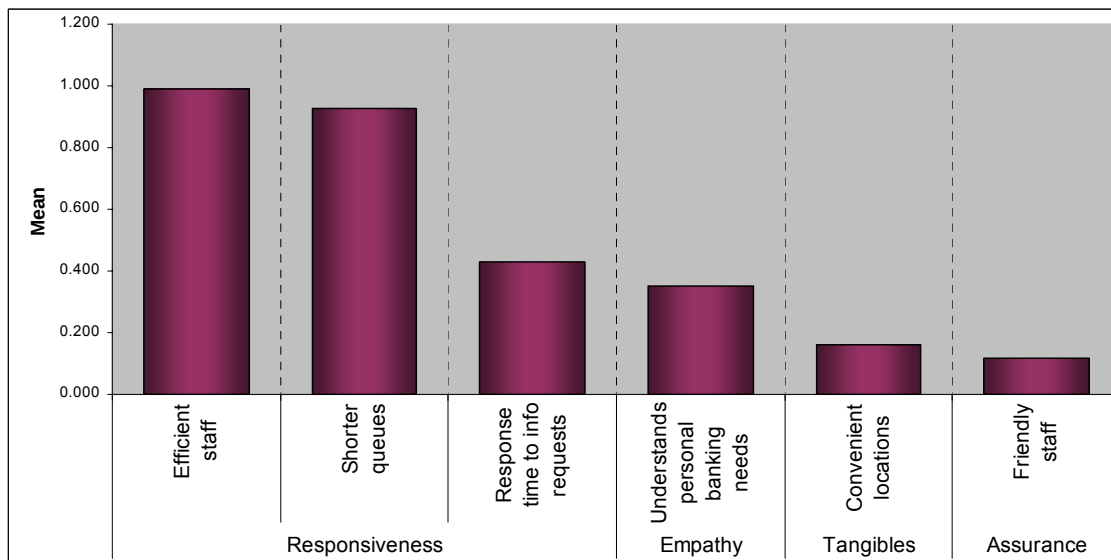


Figure 12: Significant Service Dimensions and Attributes for Ghana

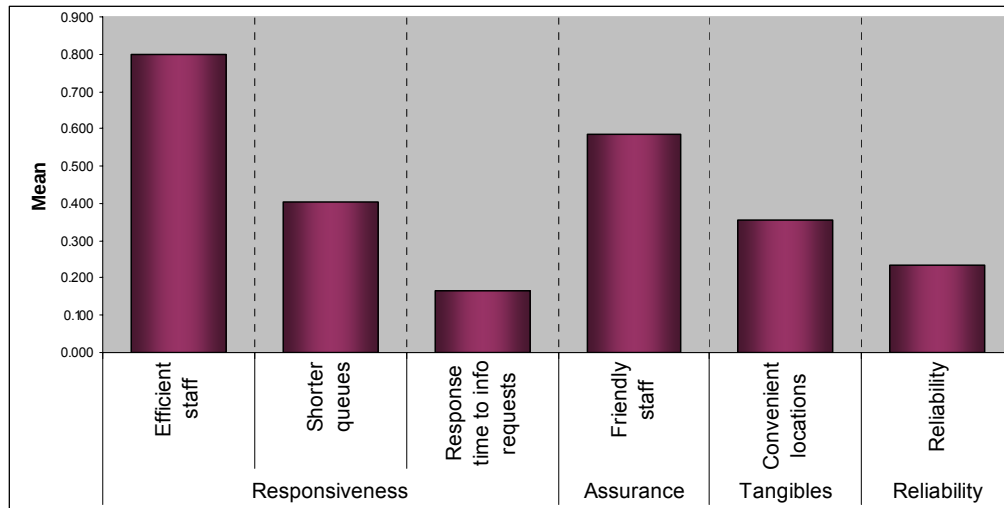


Figure 13: Significant Service Dimensions and Attributes for Kenya

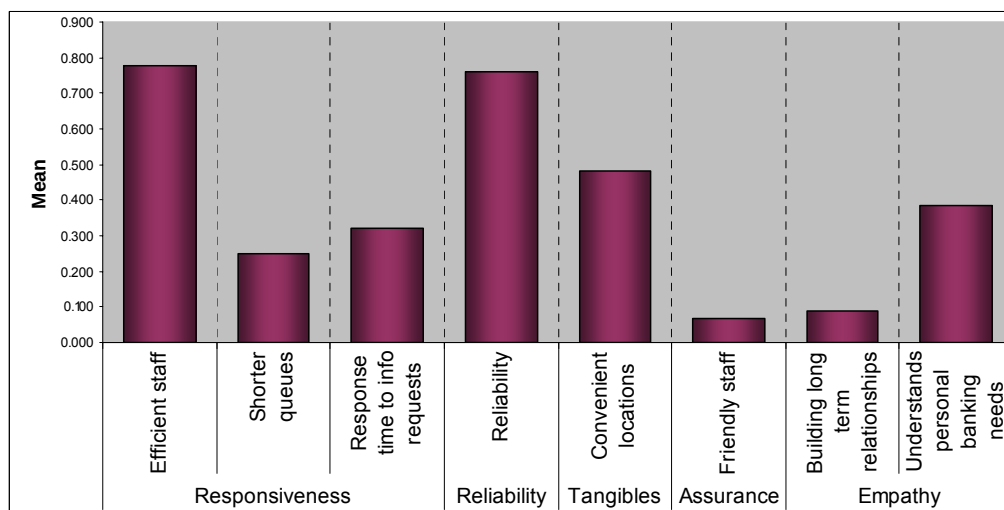


Figure 14: Significant Service Dimensions and Attributes for Mauritius

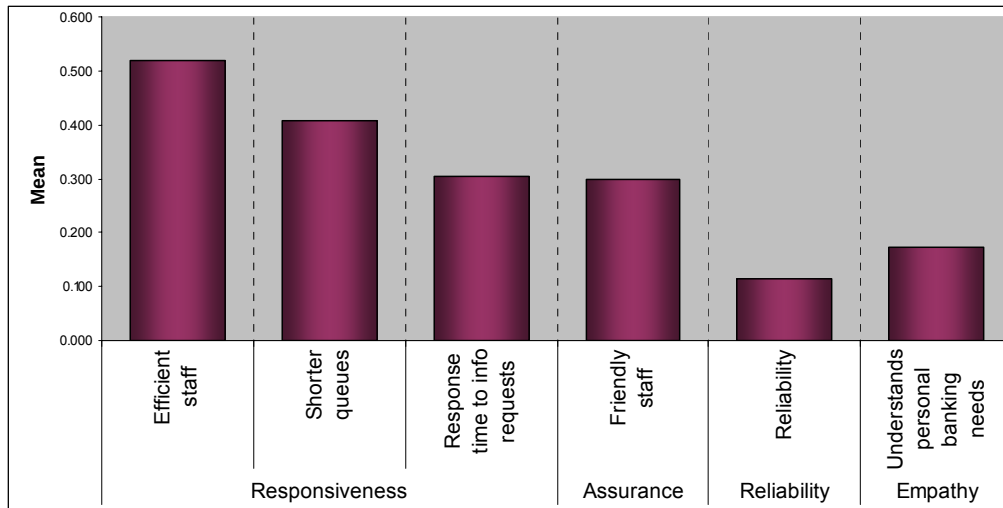


Figure 15: Significant Service Dimensions and Attributes for Seychelles

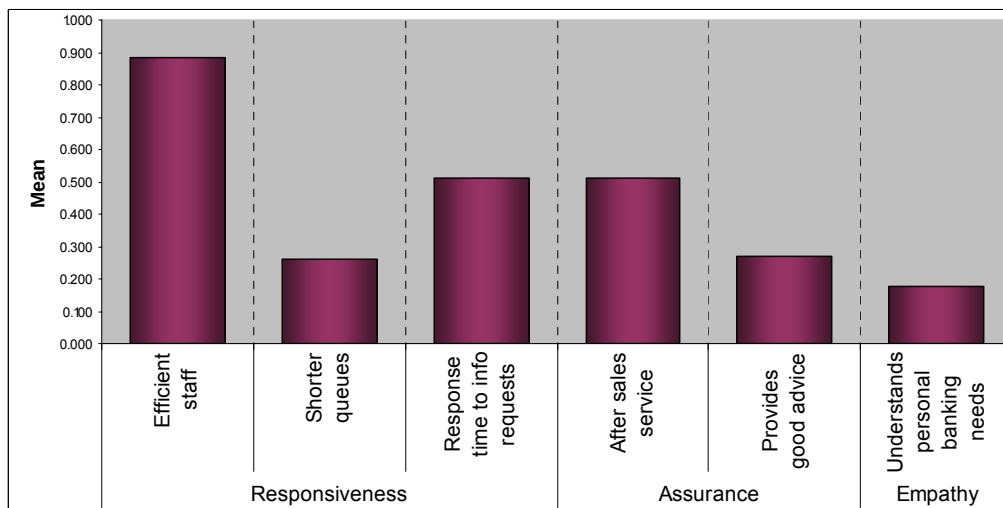


Figure 16: Significant Service Dimensions and Attributes for Tanzania

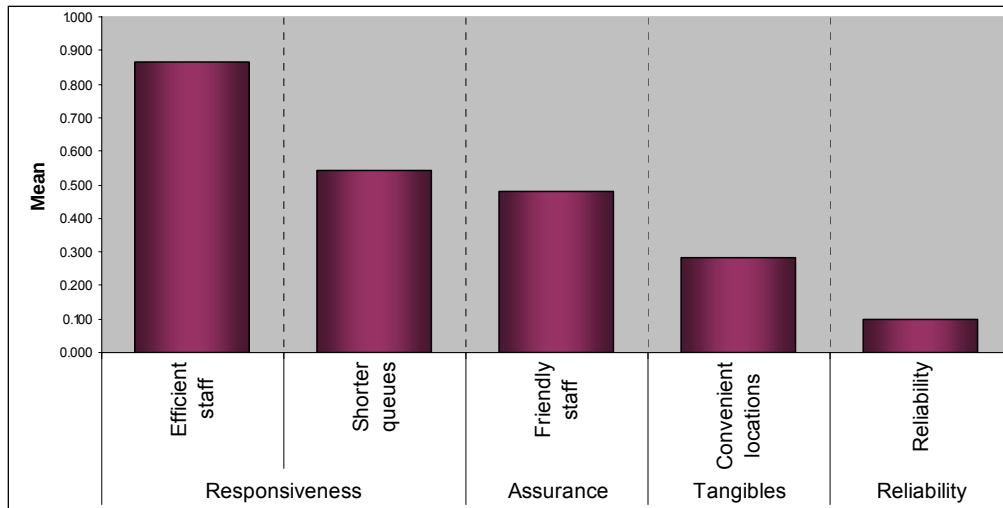


Figure 17: Significant Service Dimensions and Attributes for Uganda

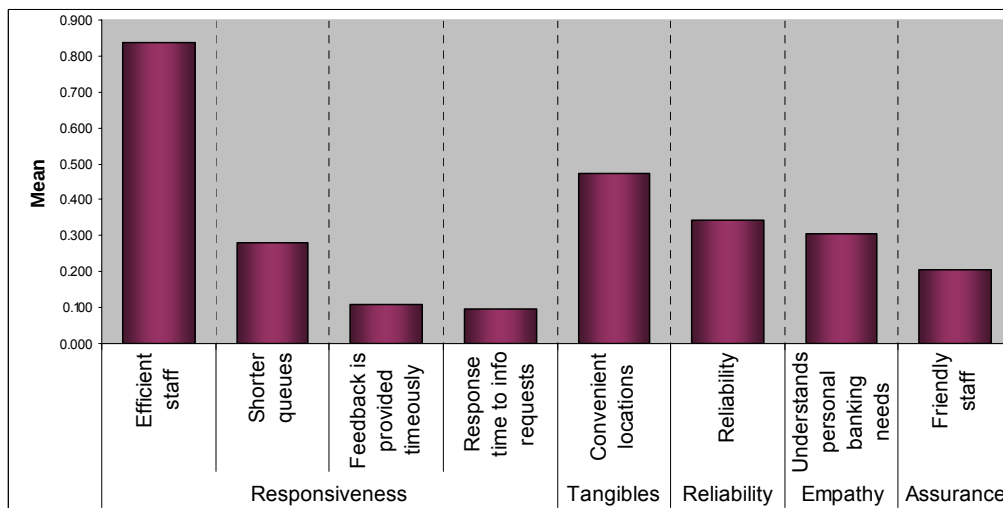


Figure 18: Significant Service Dimensions and Attributes for Zambia

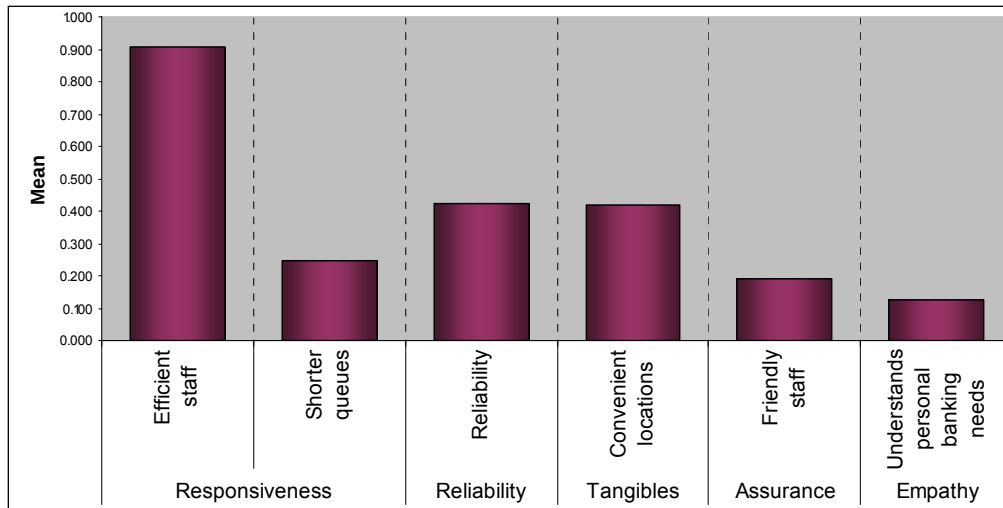
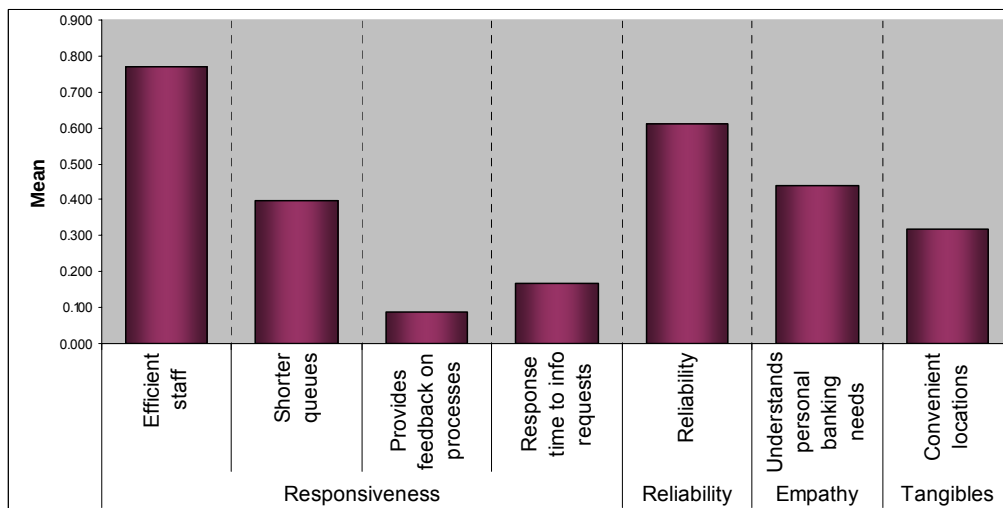


Figure 19: Significant Service Dimensions and Attributes for Zimbabwe



4.4 Changes in Service Expectations over Time (Q1 and Q4 2006)

In order to determine whether customer expectations for retail banking services in Africa are constant over time, hypothesis t-testing was used to test for the significance of differences between country means over time, comparing data from Q1 2006 with Q4 2006.

The results are based on the assumptions that each population for both data sets are approximately normally distributed and there are equal population variances. Central Limit theorem can be used as the basis for normality due to large sample sizes. The samples were independent and selected at random for both dips. A two tail t-test was conducted at a 5% level of significance. If the p value is less than 0.05, the zero hypothesis is rejected, and there is a significant change in sample means over time. These results are shown in Table 13 and 14.

Analysis of the overall means (Table 13) show that the H_0 is rejected for ten out of eleven attributes based on a 5% level of significance. This implies that significant changes in (mean) importance from Q1 2006 to Q4 2006 were evident across almost all attributes. The only attribute that remained consistent over time was “understands personal banking needs”.

Therefore, there is sufficient reason to believe that customer service expectations in the African retail banking sector do change over time, and that contrary to the statement by deCarvalho & Leite (1999), these changes are evident over a relatively short period of time (i.e. less than one year).

However, in terms of changes in the relative importance **ranking** of attributes between Q1 and Q4, the top three attributes remained unchanged; namely; (1) efficient staff, (2) shorter queues, and (3) reliability.

Table 13: T-test for Significance of differences between overall service attribute means over time (Q1 - Q4 2006)

Service Attributes		Overall Means	
		$\bar{X}$	P Value
1. Efficient staff	Q4 2006	0.844	0.000
	Q1 2006	0.691	
2. Shorter queues	Q4 2006	0.413	0.000
	Q1 2006	0.322	
3. Convenient locations	Q4 2006	0.237	0.000
	Q1 2006	-0.041	
4. Friendly staff	Q4 2006	0.184	0.000
	Q1 2006	0.067	
5. After sales service	Q4 2006	-0.151	0.000
	Q1 2006	-0.307	
6. Response time to info requests	Q4 2006	0.184	0.008
	Q1 2006	0.119	
7. Reliability	Q4 2006	0.304	0.000
	Q1 2006	0.186	
8. Appearance of facilities	Q4 2006	-0.337	0.000
	Q1 2006	-0.520	
9. Building long term relationships	Q4 2006	-0.161	0.000
	Q1 2006	-0.384	
10. Understands personal banking needs	Q4 2006	0.181	0.053
	Q1 2006	0.134	
11. Provides good advice	Q4 2006	-0.188	0.002
	Q1 2006	-0.265	

Note:

- Two tail-t test was used
- Significance level: 5% ($\alpha = 0.05$)
- The data has been standardised, therefore the overall mean = 0, and the overall standard deviation = 1
- The overall mean was derived from the individual country means
- No weighting was applied to the overall mean in order to give each country equal importance

Further analysis of significant changes in service expectations segmented by country is shown in Table 14 below. These results indicate that on an individual country basis, the following trends emerged for each service attribute:

For “efficient staff”, only four out of ten countries displayed a significant difference between country means over time, which tells us that for most countries, “efficient staff” was consistently perceived to be the most important attribute over time. It is also

interesting to note however that of those four countries that showed a significant change, an upward mean trend for all four countries was evident i.e. having “efficient staff” is becoming increasingly important for retail banking customers in Africa.

A similar trend was true for the attribute “shorter queues”, where only four out of ten countries showed a significant difference in mean importance over time; however most of these changes displayed a tendency towards increasing importance for shorter queues.

Nine out of ten countries demonstrated a significant difference in means between Q1 and Q4 2006 for the attribute “convenient locations”. In all nine countries, this attribute is becoming more important for users of retail banking services.

Egypt and Kenya were the most volatile countries regarding changes in service expectations, representing the highest number of attributes (i.e. 8) that changed significantly over time. This is most likely linked to changes in customer experience and attitude (Woodruff, 1997). Conversely, Seychelles represented the least change (3 attributes) in service expectations over time.

Table 14: T-test for significance of differences between country attribute means over time (Q1 - Q4 2006)

Service Attributes		Bots		Egypt		Ghana		Kenya		Maur	
		$\bar{x}$	P Value	$\bar{x}$	P Value	$\bar{x}$	P Value	$\bar{x}$	P Value	$\bar{x}$	P Value
1. Efficient staff	Q4 2006	1.101	0.000	0.988	0.133	0.800	0.000	0.779	0.123	0.518	0.098
	Q1 2006	0.875		0.859		0.471		0.681		0.654	
2. Shorter queues	Q4 2006	0.416	0.506	0.925	0.076	0.403	0.013	0.249	0.000	0.409	0.119
	Q1 2006	0.459		0.772		0.224		-0.004		0.280	
3. Convenient locations	Q4 2006	0.015	0.047	0.161	0.000	0.354	0.238	0.481	0.000	-0.065	0.002
	Q1 2006	-0.112		-0.263		0.439		0.200		-0.326	
4. Friendly staff	Q4 2006	0.022	0.240	0.117	0.111	0.586	0.000	0.069	0.200	0.299	0.000
	Q1 2006	0.098		-0.020		0.279		-0.012		-0.029	
5. After sales service	Q4 2006	-0.313	0.000	0.048	0.000	-0.360	0.866	-0.282	0.000	0.043	0.143
	Q1 2006	-0.603		-0.285		-0.348		-0.507		-0.078	
6. Response time to info requests	Q4 2006	-0.066	0.002	0.428	0.026	0.165	0.399	0.322	0.000	0.303	0.183
	Q1 2006	0.134		0.237		0.105		-0.182		0.413	
7. Reliability	Q4 2006	0.419	0.401	0.066	0.000	0.234	0.612	0.761	0.000	0.114	0.265
	Q1 2006	0.365		-0.527		0.271		0.399		0.206	
8. Appearance of facilities	Q4 2006	-0.357	0.000	-0.477	0.000	-0.303	0.000	-0.250	0.000	-0.173	0.000
	Q1 2006	-0.866		0.472		-0.645		-0.988		-0.700	
9. Building long term relationships	Q4 2006	-0.356	0.322	-0.222	0.000	-0.249	0.003	0.088	0.022	-0.257	0.000
	Q1 2006	-0.292		-0.630		-0.462		-0.056		-0.611	
10. Understands personal banking needs	Q4 2006	0.236	0.840	0.352	0.008	-0.080	0.912	0.383	0.037	0.173	0.618
	Q1 2006	0.223		0.123		-0.088		0.515		0.214	
11. Provides good advice	Q4 2006	-0.232	0.450	-0.348	0.000	-0.255	0.901	-0.166	0.058	0.063	0.295
	Q1 2006	-0.280		-0.738		-0.246		-0.047		-0.024	

Service Attributes		Seych		Tanz		Ugan		Zam		Zim	
		$\bar{x}$	P Value	$\bar{x}$	P Value	$\bar{x}$	P Value	$\bar{x}$	P Value	$\bar{x}$	P Value
1. Efficient staff	Q4 2006	0.882	0.098	0.864	0.000	0.836	0.000	0.905	0.453	0.769	0.140
	Q1 2006	0.678		0.383		0.472		0.959		0.872	
2. Shorter queues	Q4 2006	0.259	0.217	0.544	0.555	0.278	0.003	0.245	0.035	0.399	0.745
	Q1 2006	0.107		0.599		0.005		0.397		0.377	
3. Convenient locations	Q4 2006	-0.068	0.001	0.285	0.000	0.475	0.000	0.419	0.001	0.318	0.003
	Q1 2006	-0.486		-0.222		0.063		0.184		0.110	
4. Friendly staff	Q4 2006	0.019	0.067	0.480	0.000	0.203	0.741	0.191	0.136	-0.141	0.018
	Q1 2006	0.246		-0.170		0.174		0.083		0.024	
5. After sales service	Q4 2006	0.513	0.712	-0.453	0.004	-0.343	0.153	-0.201	0.000	-0.165	0.000
	Q1 2006	0.467		-0.177		-0.472		-0.499		-0.568	
6. Response time to info requests	Q4 2006	0.510	0.081	-0.119	0.000	0.094	0.702	0.037	0.050	0.167	0.000
	Q1 2006	0.295		0.251		0.129		-0.104		-0.083	
7. Reliability	Q4 2006	-0.022	0.157	0.097	0.220	0.342	0.113	0.422	0.047	0.610	0.814
	Q1 2006	-0.197		-0.019		0.486		0.279		0.594	
8. Appearance of facilities	Q4 2006	-0.370	0.027	-0.168	0.088	-0.375	0.130	-0.326	0.001	-0.571	0.052
	Q1 2006	-0.644		-0.329		-0.238		-0.561		-0.706	
9. Building long term relationships	Q4 2006	-0.254	0.000	-0.224	0.005	-0.190	0.207	0.030	0.000	0.018	0.000
	Q1 2006	-0.774		0.044		-0.304		-0.403		-0.350	
10. Understands personal banking needs	Q4 2006	0.176	0.825	-0.299	0.000	0.304	0.000	0.127	0.548	0.438	0.000
	Q1 2006	0.203		0.146		-0.075		0.084		-0.010	
11. Provides good advice	Q4 2006	0.269	0.183	-0.399	0.258	-0.324	0.355	-0.172	0.001	-0.318	0.390
	Q1 2006	0.105		-0.506		-0.240		-0.419		-0.258	

Note assumptions:

- Two tail t-test
- Significance level: 5% ($\alpha = 0.05$)
- The data has been standardised, therefore the overall mean = 0, and the overall standard deviation = 1

Thus we can deduce that while no changes were evident in the relative importance ranking of the top three attributes over time, i.e. (efficient staff, shorter queues, and reliability), results from the t-test show significant changes in (mean) importance between Q1 2006 to Q4 2006 for ten out of eleven attributes. Furthermore, these changes are evident in service expectations over a short term period. (i.e. 8 months). Egypt and Kenya demonstrated the highest level of volatility in expectations. Of interest, efficient staff, shorter queues and convenient locations are becoming increasingly important for customers. This calls for continuous short term assessments of changing customer expectations. This will help managers concentrate their efforts in service quality improvements where most beneficial.

The following chapter presents an interpretation of the results and an analysis of the possible implications for management wishing to improve the quality of service delivery.

5 CONCLUSIONS AND RECOMMENDATIONS

From the results presented in Chapter 4, the following conclusions and recommendations with respect to the research propositions can be drawn.

5.1 Responses to Propositions

The objective of this research was to analyse customer service expectations in retail banking in Africa. In order to assess this, propositions based on the research sub-problems and on the literature review were formulated as follows:

- To determine whether cross-national differences in customer service expectations in the African retail banking sector exist,
- Establish the relative importance of service attributes in retail banking across Africa, and
- Assess whether these service expectations change over time.

The following conclusions were derived from this research for the respective propositions:

5.1.1 *Research Proposition 1:*

Customer service expectations in retail banking differ significantly between countries in Africa

The research clearly shows that customer service expectations in retail banking do differ significantly between countries in Africa: **Accept Proposition One.**

ANOVA testing presents sufficient evidence to indicate that for every service attribute, one or more of the population (country) means are not equal to the others. Every attribute had some significant difference between countries. This implies that different cultural groups give different importance to service quality dimensions.

It is therefore critical to take cross-national differences into consideration when designing and implementing a marketing strategy for multinational companies. In order to achieve this, country-specific customer expectations must be determine and prioritised as a first step towards improving service quality.

5.1.2 Research Proposition 2:

The importance ranking of the service dimensions in African retail banking are:

- 1. Responsiveness***
- 2. Assurance***
- 3. Empathy***
- 4. Tangibles***
- 5. Reliability***

The relative importance of the underlying SERVQUAL dimensions in this survey show partial variance to those identified by past research: **Partially Accept Proposition Two.**

Ranking: service dimensions

Blanchard & Galloway (1994) identified responsiveness, assurance, empathy, tangibles and reliability as the most important service dimensions respectively for retail banks in the UK. This research has determined that in an African context, responsiveness, reliability, tangibles, assurance and empathy are the most important dimensions relating to retail banking services.

Table 15: Importance Ranking of SERQUAL Dimensions

Retail Banks in UK	Retail Banks in Africa
1. Responsiveness	1. Responsiveness
2. Assurance	2. Reliability
3. Empathy	3. Tangibles
4. Tangibles	4. Assurance
5. Reliability	5. Empathy

This assessment is based on the ranking of individual attributes collapsed into the underlying dimensions. The data from the survey is derived from a partial rank ordering technique. Rescaling of the results using the Stochastic Search Algorithm (Stacey, 2006) converted the results into standardised sample means, in order to compare mean rankings.

Customers overwhelmingly perceive responsiveness (the time dimension of service quality) to be of vital importance, ranked first out of the five service dimensions. This supports previous research by Avkiran (1994), Blanchard *et al* (1994), and Johnston (1997) which indicates that responsiveness would attract the highest rating in the retail banking sector. Of interest though is that the relative importance ranking of subsequent service dimensions was not consistent with previous research. The results suggest that relational issues surrounding assurance and empathy are of less importance in an African context, while core dimensions such as responsiveness (driven by staff efficiency and shorter queues), and reliability (performing dependably and accurately) are more important.

Both dimensions (responsiveness and reliability) tend to be more outcome based and can be classified as objective hard issues since they can be much more readily identified and specified to that of soft and subjective “relational” issues. This implies that addressing the hard objective issues could more readily provide, and monitor, a high quality service in a fairly prescriptive and reproducible manner (Blanchard & Galloway, 1994).

Ranking: service attributes

This research also identifies the individual attributes that collectively drive the underlying dimensions. Staff efficiency is not only the most important attribute (on average) for retail banking customers in Africa, but it is perceived to be twice as important as having “shorter queues”, ranked second. Service reliability and convenient locations are rated as the third and fourth most important attributes respectively (out of 15 attributes in total). Of least importance is having a welcoming environment and good product knowledge.

Table 16: Importance Ranking of Service Attributes

Service Attributes	Mean Rating
1. Efficient staff	0.844
2. Shorter queues	0.413
3. Reliability	0.304
4. Convenient locations	0.237
5. Friendly staff	0.184

Ranking: by country

Cross-country analysis shows partial indifferences in the relative importance regarding dimensions and attributes. Staff efficiency (responsiveness) is the most important attribute (dimension) for each and every country, indicating that partial similarities of relative importance do exist across countries. This would suggest that efforts to increase speed of processing information and customers are likely to have an important and positive effect on customer satisfaction.

Furthermore, only one attribute (staff efficiency) appears to be stable cross-culturally. This demonstrates that clear differences are evident for each country, which calls for an understanding of cultural differences when designing country-specific marketing strategies.

Significant attributes: for Africa

Results from the t-tests used to determine the significance of attributes indicate that only seven (out of fifteen) service attributes proved to be of significant importance (i.e. significantly above average importance). These were efficient staff, shorter queues, fast response times, service reliability, convenient locations, friendly staff, and understanding personal banking needs.

Conversely, insignificant attributes with a below average importance included appearance of facilities, providing a welcoming environment, after sales service, good advice, good product knowledge, feedback on processes, feedback provided timeously, and building long term relationships.

Significant attributes: by country

When delineating what the similarities in **significant** attributes are across the ten countries, only efficient staff and shorter queues were significant for each and every country. Appearance of facilities, providing a welcoming environment and good product knowledge proved to be insignificant attributes for all ten countries. Any time and money put into these areas (over and above the standard offering) might be better redirected elsewhere.

The above results highlight some of the key determinants of service quality in Africa, and provide managers of multinational companies with a framework of similarities that exist across countries. If detailed branch analysis is not available, this research highlights two general areas that banks need to focus their attention on in order to achieve an advantage.

Significant dimensions: by country

Analysis of **significant** dimensions by country reiterates that “responsiveness” is consistently the most important for all countries. Thereafter, the dimensional rankings vary by country, showing minor similarities.

Kenya and Zambia followed the same dimensional ranking as the overall ranking for Africa i.e. (1) responsiveness, (2) reliability, (3) tangibles, (4) assurance, (5) empathy. Ghana and Tanzania were the only other two countries displaying an identical dimensional ranking i.e.: (1) responsiveness, (2) assurance, (3) tangibles, and (4) reliability. None of the African countries followed the full ranking proposed in the second proposition, i.e. (1) responsiveness, (2) assurance, (3) empathy, (4) tangibles, and (5) reliability.

While partial similarities are evident, it is clear that cross-national differences across most countries are prevalent. Furthermore, responsiveness being the most important dimension is the only similarity between African countries and the UK.

5.1.3 Research Proposition 3:

Customer service expectations in the African retail banking sector change over time

This survey shows that while there were no changes in the ranking of customer service expectations over time, there were significant changes in the importance of these expectations. **Partially Accept Proposition Three.**

While no changes were observed in the relative importance ranking of the top three attributes over time, i.e. (efficient staff, shorter queues, and reliability), results from the t-test show significant changes in (mean) importance between Q1 2006 to Q4 2006 were evident for ten out of eleven attributes. Thus we can conclude that not only are there significant changes in customer service expectations over time, but that significant changes are evident in service expectations over a short term period. (i.e. 8 months). Egypt and Kenya demonstrated the highest level of volatility in expectations, while Seychelles remained relatively consistent for the period.

Table 17: Importance Ranking of Service Attributes – Q1 2006 vs Q4 2006

Importance Ranking: Q1 2006	Importance Ranking: Q4 2006
1. Efficient staff	1. Efficient staff
2. Shorter queues	2. Shorter queues
3. Reliability	3. Reliability

Table 18: Significant Changes in Mean Importance between Q1 2006 – Q4 2006

Changes in Mean Importance: (Q1 and Q4 2006)		Overall Means	
		$\bar{x}$	P Value
Efficient staff	Q4 2006	0.844	0.000
	Q1 2006	0.691	
Shorter queues	Q4 2006	0.413	0.000
	Q1 2006	0.322	
Convenient locations	Q4 2006	0.237	0.000
	Q1 2006	-0.041	
Friendly staff	Q4 2006	0.184	0.000
	Q1 2006	0.067	
After sales service	Q4 2006	-0.151	0.000
	Q1 2006	-0.307	
Response time to info requests	Q4 2006	0.184	0.008
	Q1 2006	0.119	
Reliability	Q4 2006	0.304	0.000
	Q1 2006	0.186	
Appearance of facilities	Q4 2006	-0.337	0.000
	Q1 2006	-0.520	
Building long term relationships	Q4 2006	-0.161	0.000
	Q1 2006	-0.384	
Understands personal banking needs	Q4 2006	0.181	0.053
	Q1 2006	0.134	
Provides good advice	Q4 2006	-0.188	0.002
	Q1 2006	-0.265	

 No significant change

Of interest, efficient staff, shorter queues and convenient locations are becoming increasingly important for customers.

These results highlight the importance of conducting continuous short term assessments of changing customer expectations in order to proactively understand and address changing needs. This will help managers concentrate their efforts in service quality improvements where most beneficial, thus having a greater impact on achieving customer satisfaction, retention and ultimately profitability.

In summary, this research provides managers with an understanding of the similarities and differences in customer service expectations that exist in Africa, and helps them assess the likely impact of any service quality initiative in terms of its relative importance in an African context.

5.2 Recommendations to Organisations

The results of this research provide a number of clear implications for the management of customer service expectations.

- Cross-national differences are clearly evident across countries in Africa, which calls for customised marketing strategies based on the unique customer service expectations that exist for each country.
- However some similarities are evident for certain dimensions and attributes, which can be leveraged off for a pan African strategy.
- Customers of retail banks in Africa are clearly seeking a responsive service, with a high level of staff efficiency. This would suggest that efforts to increase speed of processing information and customers are likely to have an important and positive effect on customer satisfaction. Addressing this issue through regular staff training should improve service quality.
- Shorter queues, service reliability and convenient locations are also considered to be very important by customers. Furthermore, these attributes (including staff efficiency) are becoming increasingly important over time. For retail banks in Africa wanting to enhance customer satisfaction, these would be key areas for improvement. These are areas where well-designed routines and responses could be used to gain maximum impact.
- Time and money, beyond a basic provision, invested in providing a welcoming environment, appearance of facilities and good product knowledge can be better redirected elsewhere.
- Service expectations in Africa do change over time, and are evident over a relatively short period of time (< 1 year). It is recommended that short term assessments of changes in customer expectations are done in order to accurately meet customer needs and improve service quality.

5.3 Recommendations for Future Research

Concerning future investigations, further research must be conducted in order to explore how cultural differences shape perceptions and expectations of service quality, by way of exploring psychometric properties and culture value orientations.

Researchers should also consider taking a broader view towards identifying the components of service quality and the overall service offering. The components should encompass not only the recently identified external constructs relating to customer expectations, but also the internal issues relating to employee satisfaction that drive service quality (i.e. the full service profit chain).

Furthermore, investigations in this area might focus on measuring customer expectations as well as customer experience (perceived service) in order to determine the service gap that exists. Also, by including more countries in the survey to verify service expectation rank ordering will help avoid the occurrence of Type II error.

Future research of a case study nature into the key service attributes delivered by retail banks in Africa would provide valuable data for the improvement of the questionnaire format.

REFERENCES

- Avkiran, N.K. (1994), "Developing an instrument to measure customer service in branch banking", *International Journal of Bank Marketing*, Vol. 12 (6), pp.10-18.
- Anderson, E.A. & Sullivan, M.W. (1993), "The antecedents and consequences of customer satisfaction for firms", *Marketing Science*, Vol. 12, pp. 125-43.
- Berry, L.L., Zeithaml, V.A., Parasuraman, A. (1985), "Quality counts in services, too", *Business Horizons*, May-June, pp.44-52.
- Bick, G., Brown A.G. & Abratt R. (2004), "Customer perceptions of the value delivered by retail banks in South Africa", *The International Journal of Bank Marketing*, Vol. 22 (4/5); pg. 300
- Bitner, M.J., Booms, B.H., Tetreault, M.S. (1990), "The service encounter: diagnosing favorable and unfavorable incidents", *Journal of Marketing*, Vol. 54 pp.71-84.
- Bitner, M.J., & Hubbert, A.R. (1994), "Encounter satisfaction versus overall satisfaction versus quality", in Rust, R.T. & Oliver, R.L. (Eds), "Service Quality: New Directions in Theory and Practice", Sage, London.
- Blanchard, R.F & Galloway, R.L (1994), "Quality in Retail Banking", *International Journal of Service Industry Management*, Vol. 5 (4), pp. 5-23.
- Boshoff, C. & Nel, D. (1992), "Influence of Demographic Variables on Service Quality Perceptions in Three Industries, *South African Journal of Business Management*, Vol. 23 (3/4), pp.69-74.

Boulding, W., Kalra, A., Staelin, R. & Zeithaml, V.A. (1993), "A Dynamic Process Model of Service Quality: From Expectations to Behavioural Intentions", *Journal of Marketing Research*, Vol. 30 (1), pp. 7-27.

Buttle, F. (1996), "SERVQUAL: Review, Critique, Research Agenda", *European Journal of Marketing*, Vol. 30 (1), pp. 8-35.

Carman, J.M. (1990), "Consumer perceptions of service quality: an assessment of the SERVQUAL dimensions", *Journal of Retailing*, Vol. 66 (1), pp. 33-55.

Cina, C. (1990), "Five steps to service excellence", *The Journal of Services Marketing*, Vol. 4 pp. 39-47.

Creswell, J.W. (1994), *Research design: qualitative & quantitative approaches*, Thousand Oaks, California, Sage Publications.

Cronin, J.J. Jr. & Taylor, S.A. (1992), Measuring Service Quality: a re-examination and extension, *Journal of Marketing*, Vol. 56 (3), pp. 55-69

Dabholkar, P.A., Thorpe, D.I. & Rentz, J.O. (1996), "A measure of service quality for retail stores: scale development and validation", *Journal of the Academy of Marketing Science*, Vol. 24, Winter, pp. 3-16.

Daniel, A.L. (1992), "Overcome the barriers to superior customer service", *Business and Society Review*, pp. 53-5.

Davidow, W.H. & Uttal, B. (1989), "Service companies: focus or falter", *Harvard Business Review*, July/August, pp. 17-34.

DeCarvalho, F.A. & Leite, V.F. (1999), "Attribute Importance in Service Quality: An empirical test of the PZB conjecture in Brazil", *International Journal of Service Industry Management*, Vol.10 (5), pp. 487-499

Denzin, N.K., & Lincoln, Y.S. (1998), *The landscape of qualitative research: theories and issues*, Thousand Oaks, California, Sage Publications.

East, R. (1997), "Consumer Behaviour: Advances and Applications in Marketing", *Prentice-Hall*, London.

Espinoza, M.M. (1999), "Assessing the cross-cultural applicability of a service quality measure - A comparative study between Quebec and Peru", *International Journal of Service Industry Management*, Vol. 10 (5), pp. 449-468.

File, K.M. & Prince, R.A. (1992), "Positive word of mouth: customer satisfaction and buyer behaviour", *International Journal of Bank Marketing*, Vol. 10 (1), pp. 25-9.

Gale, B.T. (1994), *Managing Customer Value*, Free Press, New York, NY.

Grönroos, C. (1988), "Service quality: The six criteria of good perceived service", *Review of Business*, Vol. 9 (3), pp.10-14

Hallowell, R (1996), "The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study", *International Journal of Service Industry Management*, Vol. 7 (4), pp. 27 - 42

Heskett, J.L., Jones, T.O., Loveman, G.W., Sasser, W.E. Jr, & Schlesinger, L.A. (1994), "Putting the Service-Profit Chain to Work", *Harvard Business Review*, March-April, pp. 164-74

Heskett, J.L., Sasser, W.E., & Schlesinger, L.A. (1997), "The Service Profit Chain", *New York: Free Press*, pp 302

Johnston, R. (1995), "The determinants of service quality: satisfiers and dissatisfiers", *International Journal of Service Industry Management*, Vol. 6 (5), pp.53-71.

Johnston, R. (1997), "Identifying the critical determinants of service quality in retail banking: importance and effect", *International Journal of Bank Marketing*, Vol. 15 (4), pp. 111-116.

Johnson, C. & Mathews, B.P. (1997), "The influence of experience on service expectations", *International Journal of Service Industry Management*, Vol. 8 (4), pp. 290-305.

Kamakura, W.A., Mittal, V., De Rosa, F., & Mazzon, J. (2002), "Assessing the Service-Profit Chain", *Marketing Science*; Vol. 21 (3), pp. 294-317

Keiningham, T., Zahorik, A.J., & Rust, R.T. (1995), "Getting return on equity", *Journal of Retail Banking*, 16 (4), 7-13.

Knight, G. (1999), "International services marketing: review of research, 1980-1998" *International Journal of Services Marketing*, Vol. 13 (4/5), pp. 347-360

Leedy, P.D. & Ormrod, J.E. (2001), "Practical Research: Planning and Design", Seventh Edition, Upper Saddle River: Merrill Prentice Hall.

Levesque, T. & McDougall, G.H.G. (1996), "Determinants of customer satisfaction in retail banking", *International Journal of Bank Marketing*, Vol. 14 (7), pp. 12-20.

Lovelock, CH. (1999), "Developing marketing strategies for transnational service operations", *Journal of Services Marketing*, Vol.13 (4/5) 1999, pp. 278-289.

Mathews, B.P. (1995), "Quality determinants revisited: or is it satisfaction determinants?", *Proceedings of the Workshop on Quality Management in Services V*, Tilburg, Holland, pp. 355-365.

Marshall, G.W., Baker, J., & Finn D.W. (1998), "Exploring internal customer service quality", *Journal of Business & Industrial Marketing*, Vol. 13 (4/5) pp. 381.

Nel, D., Pitt, L.F. & Berthon, P.R. (1997), "The SERVQUAL Instrument: reliability and validity in South Africa, *South African Journal of Business Management*, Vol. 28 (3), pp. 113-122.

Newman, K. & Cowling, A. (1996), "Service quality in retail banking: the experience of two British clearing banks", *International Journal of Bank Marketing*, Vol. 14, pp. 3-11.

Oliver, R.L. (1980), "Cognitive model of the antecedents and consequences of satisfaction decisions", *Journal of Marketing Research*, Vol. 17, pp. 460-9.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985), "A Conceptual Model of Service Quality and its Implications for Future Research", *Journal of Marketing*, Vol. 58, January, pp. 111-24.

Parasuraman, A., Zeithaml, V.A., & Berry, LL. (1985), "Guidelines for Conducting Service Quality Research", *Marketing Research*, December, pp. 33-34.

Parasuraman, A., Berry, LL., & Zeithaml, V.A. (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, Vol. 49, pp. 41-50.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988), "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality", *Journal of Retailing*, Vol. 64 (1), 12-40

Parasuraman, A., Zeithaml, V.A., & Berry, LL. (1990), "A Conceptual Model of Service Quality and its Implications for Future Study", *Journal of Marketing*, Vol. 49 (Fall), pp. 41-50.

Parasuraman, A., Berry, L.L., & Zeithaml, V.A. (1990), "Delivering Quality Service", *The Free Press*, New York, NY, Ch 2.

Parasuraman, A., Berry, L.L., & Zeithaml, V.A. (1991), "Understanding Customer Expectations of Service", *Sloan Management Review*; ABI/INFORM Global; pp 39.

Parasuraman, A., Zeithaml, V.A., & Berry, LL. (1993), "Refinement and Reassessment of the SERVQUAL Scale", *Journal of Retailing*, Vol. 69 (Spring), pp. 140-147.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1994), "Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implication for further research", *Journal of Marketing*, Vol. 58 (1), pp 111-125.

Quester, P. & Romaniuk, S. (1997), "Service Quality in the Australian Advertising Industry: A methodological study", *Journal of Services Marketing*, Vol. 11 (3), pp. 80-89.

Reichheld, F.F. & Sasser, W.E. Jr (1990), "Defections: quality comes to services", *The Harvard Business Review*, pp. 106-7.

Richens, M.L. (1983), "Negative word of mouth by dissatisfied consumers: a pilot study", *Journal of Marketing*, Winter, p. 69.

Robledo, M.A. (1996), "The importance of customer expectations in measuring service quality", in Richards, G (Eds), *Tourism in Central and Eastern Europe: Educating for Quality*, Tilburg University Press, pp. 241-6.

Robledo, M.A. (2001), "Measuring and Managing Service Quality: Integrating Customer Expectations", *Managing Service Quality*, Vol. 11 (1), pp. 22-31.

Rucci, A.J. Kirn, S.P., & Quinn, R.T. "The employee-customer-profit chain at Sears". *Harvard Business Review* (Jan-Feb) pp 83-97.

Rust, R.T. & Oliver, R.L. (1994), "Service Quality: New Dimensions in Theory and Practice", Sage, London.

Rust, R.T., Zahorik A.J., & Keiningham, T.L. (1995), "Return on Quality (ROQ): Making Service Quality Financially Accountable", *Journal of Marketing*, Vol. 59 (Apr), pp 58-70

Shycon, H.N. (1992), "Improving Customer Service: Measuring the Payoff", *The Journal of Business Strategy*, pp. 13-17.

Smith, A.M. & Reynolds, N.L. (2001), "Measuring Cross-National Service Quality - A Framework for assessment", *International Marketing Review*, Vol. 19 (5), pp. 450-481.

Speece, M. & Pinkaeo K. (2002), "Service Expectations and Consumer Ethnocentrism", *Australasian Marketing Journal*, Vol. 10 (3), pp. 59-75.

Stacey, A. (2006), "Estimating the Means and Standard Deviations of Rank Ordered Survey Items", *Journal of Management Dynamics*, Vol. 15 (3), pp1-14.

Stauss, B. & Mang, P. (1999), "Culture Shocks" in Inter-Cultural Service Encounters", *Journal of Services Marketing*, Vol. 13 (4/5), pp. 329-346.

Stone, J.R. (2006), "Assessing the Quality of Service Delivered by South African Consulting Engineers", Unpublished MBA Research Report, Johannesburg: University of the Witwatersrand.

Taylor, S.A. & Baker, T.L. (1994), "An Assessment of the Relationship between Service Quality and Customer Satisfaction in the Formation of Consumers' Purchase Intentions", *Journal of Retailing*, Vol. 70 (2), pp. 163-78.

Teas, R.K. (1993), "Expectations, Performance Evaluation and Consumer Perceptions of Quality", *Journal of Marketing*, Vol. 57 (October), pp. 18-34.

Tenner, A.R. & DeToro, I.J. (1992), "Total Quality Management", *Addison-Wesley Publishing Co, Inc.*, Reading, MA.

Tersine, R. & Harvey, M. (1998), "Global Customerization of Markets has Arrived!" *European Management Journal*, Vol. 16 (1), pp. 45-57.

Vandermerwe, S. (1993), "Tin Soldiers to Russian Dolls", *Butterworth-Heinemann*, Oxford, pp.106.

Venetis, K.A and Ghauri, P.N. (2004), "Service quality and Customer retention: building long-term relationships", *European Journal of Marketing*, Vol. 38 (11/12), pp.1577-1593.

Webster, C. (1989), "Can consumers be segmented on the basis of their service quality expectations?", *Journal of Services Marketing*, Vol. 2 (3), pp. 35-53.

Woodruff, R.B. (1997), "Customer value: The next source of competitive advantage", *Journal of the Academy of Marketing Science*, Vol. 25 (2), pp.139-154

World Trade Organisation, (2005), "International trade statistics 2005", By Sector (Pdf) http://www.wto.org/english/res_e/statistics_e/its2005_e/its05_bysector_e.pdf

Yeo, G. & Böckenholt, U. (1999), "Bayesian estimation of Thurstonian ranking models based on the Gibbs sampler", *British Journal of Mathematical and Statistical Psychology*, Vol. 52, pp. 79-92

Zeithaml, V.A, Berry, L.L, Parasuraman, A. (1988), "Communication and control processes in the delivery of service", *Journal of Marketing*, Vol. 52, pp. 35-48.

Zeithaml, V.A., Parasuraman, A., & Berry, L.L. (1990), "Delivering Quality Service", *The Free - Press*, New York, NY.

Zeithaml, V., Berry, L.L., & Parasuraman, A. (1993), "The nature and determinants of customer expectations of a service", *Journal of the Academy of Marketing Science*, Vol. 21 (1), pp. 1-12.

APPENDIX A: INTERVIEW QUESTIONNAIRES

Q4 2006 Interview Questionnaire, (15 service attributes)

1. I am going to read to you a list of service areas relating to your bank. After I read the whole list (there are eleven service areas) please say which three service areas are most important to you and place them in order of First Most Important, Second Most Important and Third Most Important.

(Interviewer note: The respondent can only answer after you read the whole list. Tick one block only for 'First Most Important', tick one block only for 'Second Most Important' and tick one block only for 'Third Most Important'.)

	First Most Important	Second Most Important	Third Most Important
	Q1.1	Q1.2	Q1.3
1. Efficient staff			
2. Shorter queues			
3. Convenient locations			
4. Friendly Staff			
5. Good After sales service			
6. Fast response time to information requests			
7. Reliability – Able to perform service dependably and accurately			
8. Appearance of facilities			
9. Focus on building long term relationships			
10. Understands my personal banking needs			
11. Provides good advice			
12. Provides a welcoming environment			
13. Provides me with promised feedback on key steps in processes. <i>E.g. letting you know about loan approvals or if your account opening has been approved.</i>			

14. Feedback is provided timeously on key steps in processes. <i>E.g. loan approvals or account openings</i>			
15. Staff have good product knowledge			
	ONE MENTION ONLY PER COLUMN		

Q1 2006 Interview Questionnaire, (11 service attributes)

1. I am going to read to you a list of service areas relating to your bank. After I read the whole list (there are eleven service areas) please say which three service areas are most important to you and place them in order of First Most Important, Second Most Important and Third Most Important.

(Interviewer note: The respondent can only answer after you read the whole list. Tick one block only for 'First Most Important', tick one block only for 'Second Most Important' and tick one block only for 'Third Most Important'.)

	First Most Important	Second Most Important	Third Most Important
	Q1.1	Q1.2	Q1.3
1. Efficient staff			
2. Shorter queues			
3. Convenient locations			
4. Friendly Staff			
5. Good After sales service			
6. Fast response time to information requests			
7. Reliability – Able to perform service dependably and accurately			
8. Appearance of facilities			
9. Focus on building long term relationships			
10. Understands my personal banking needs			
11. Provides good advice			
	ONE MENTION ONLY PER COLUMN		

APPENDIX B: DETAILED PRESENTATION OF RESULTS

Appendix B.1: Summary Stats – Q4 2006

Table B 1.1: Summary Stats, Q4 2006 - Efficient Staff

<i>Summary stats for Q4 2006</i>	ITEM 1: EFFICIENT STAFF									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	1.101	0.988	0.800	0.779	0.518	0.882	0.864	0.836	0.905	0.769
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.2: Summary Stats, Q4 2006 – Shorter Queues

<i>Summary stats for Q4 2006</i>	ITEM 2: SHORTER QUEUES									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	0.416	0.925	0.403	0.249	0.409	0.259	0.544	0.278	0.245	0.399
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.3: Summary Stats, Q4 2006 – Convenient Locations

<i>Summary stats for Q4 2006</i>	ITEM 3: CONVENIENT LOCATIONS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	0.015	0.161	0.354	0.481	-0.065	-0.068	0.285	0.475	0.419	0.318
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.4: Summary Stats, Q4 2006 – Friendly Staff

<i>Summary stats for Q4 2006</i>	ITEM 4: FRIENDLY STAFF									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	0.022	0.117	0.586	0.069	0.299	0.019	0.480	0.203	0.191	-0.141
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.5: Summary Stats, Q4 2006 – After Sales Service

<i>Summary stats for Q4 2006</i>	ITEM 5: GOOD AFTER SALES SERVICE									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.313	0.048	-0.360	-0.282	0.043	0.513	-0.453	-0.343	-0.201	-0.165
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.6: Summary Stats, Q4 2006 – Response Time

<i>Summary stats for Q4 2006</i>	ITEM 6: FAST RESPONSE TIME TO INFO REQUESTS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.066	0.428	0.165	0.322	0.303	0.510	-0.119	0.094	0.037	0.167
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.7: Summary Stats, Q4 2006 - Reliability

<i>Summary stats for Q4 2006</i>	ITEM 7: RELIABILITY									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	0.419	0.066	0.234	0.761	0.114	-0.022	0.097	0.342	0.422	0.610
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.8: Summary Stats, Q4 2006 – Appearance of Facilities

<i>Summary stats for Q4 2006</i>	ITEM 8: APPEARANCE OF FACILITIES									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.357	-0.477	-0.303	-0.250	-0.173	-0.370	-0.168	-0.375	-0.326	-0.571
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.9: Summary Stats, Q4 2006 – Long Term Relationships

<i>Summary stats for Q4 2006</i>	ITEM 9: FOCUS ON BUILDING LONG TERM RELATIONSHIPS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.356	-0.222	-0.249	0.088	-0.257	-0.254	-0.224	-0.190	0.030	0.018
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.10: Summary Stats, Q4 2006 – Understands Personal Banking Needs

<i>Summary stats for Q4 2006</i>	ITEM 10: UNDERSTANDS MY PERSONAL BANKING NEEDS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	0.236	0.352	-0.080	0.383	0.173	0.176	-0.299	0.304	0.127	0.438
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.11: Summary Stats, Q4 2006 – Provides Good Advice

<i>Summary stats for Q4 2006</i>	ITEM 11: PROVIDES GOOD ADVICE									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.232	-0.348	-0.255	-0.166	0.063	0.269	-0.399	-0.324	-0.172	-0.318
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.12: Summary Stats, Q4 2006 – Welcoming Environment

<i>Summary stats for Q4 2006</i>	ITEM 12: PROVIDES A WELCOMING ENVIRONMENT									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.487	-0.810	-0.447	-0.542	-0.177	-0.266	-0.299	-0.672	-0.288	-0.799
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.13: Summary Stats, Q4 2006 – Feedback on Processes

<i>Summary stats for Q4 2006</i>	ITEM 13: PROVIDES FEEDBACK ON KEY STEPS IN PROCESSES eg. Loan Appr									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.178	-0.204	-0.241	-0.190	-0.169	-0.044	-0.004	-0.334	-0.585	0.089
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.14: Summary Stats, Q4 2006 – Feedback Provided Timeously

<i>Summary stats for Q4 2006</i>	ITEM 14: PROMISED FEEDBACK IS PROVIDED TIMEOUSLY									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.181	-0.716	-0.167	-1.023	-0.534	-0.838	0.059	0.109	-0.446	-0.269
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Table B 1.15: Summary Stats, Q4 2006 – Knowledge of Product Range

<i>Summary stats for Q4 2006</i>	ITEM 15: STAFF HAVE GOOD KNOWLEDGE OF THE FULL PRODUCT RANGE									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	560	316	496	571	380	200	248	330	488	494
Sample means	-0.040	-0.309	-0.440	-0.677	-0.547	-0.766	-0.364	-0.404	-0.359	-0.546
Sample standard deviations	0.908	0.875	0.925	0.884	0.953	0.911	0.894	0.918	0.938	0.898
Sample variances	0.824	0.766	0.856	0.781	0.908	0.829	0.799	0.843	0.880	0.806
Weights for pooled variance	0.137	0.077	0.122	0.140	0.093	0.049	0.061	0.081	0.120	0.121

Appendix B.2: Summary Stats – Q1 2006

Table B 2.1: Summary Stats, Q1 2006 - Efficient Staff

<i>Summary stats for Q1 2006</i>	ITEM 1: EFFICIENT STAFF									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	0.875	0.859	0.471	0.681	0.654	0.678	0.383	0.472	0.959	0.872
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.2: Summary Stats, Q1 2006 – Shorter Queues

<i>Summary stats for Q1 2006</i>	ITEM 2: SHORTER QUEUES									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	0.459	0.772	0.224	-0.004	0.280	0.107	0.599	0.005	0.397	0.377
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.3: Summary Stats, Q1 2006 – Convenient Locations

<i>Summary stats for Q1 2006</i>	ITEM 3: CONVENIENT LOCATIONS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	-0.112	-0.263	0.439	0.200	-0.326	-0.486	-0.222	0.063	0.184	0.110
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.4: Summary Stats, Q1 2006 – Friendly Staff

<i>Summary stats for Q1 2006</i>	ITEM 4: FRIENDLY STAFF									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	0.098	-0.020	0.279	-0.012	-0.029	0.246	-0.170	0.174	0.083	0.024
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.5: Summary Stats, Q1 2006 – After Sales Service

Summary stats for Q1 2006	ITEM 5: GOOD AFTER SALES SERVICE									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	-0.603	-0.285	-0.348	-0.507	-0.078	0.467	-0.177	-0.472	-0.499	-0.568
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.6: Summary Stats, Q1 2006 – Response Time

Summary stats for Q1 2006	ITEM 6: FAST RESPONSE TIME TO INFO REQUESTS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	0.134	0.237	0.105	-0.182	0.413	0.295	0.251	0.129	-0.104	-0.083
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.7: Summary Stats, Q1 2006 – Reliability

Summary stats for Q1 2006	ITEM 7: RELIABILITY									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	0.365	-0.527	0.271	0.399	0.206	-0.197	-0.019	0.486	0.279	0.594
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.8: Summary Stats, Q1 2006 – Appearance of Facilities

Summary stats for Q1 2006	ITEM 8: APPEARANCE OF FACILITIES									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	-0.866	0.472	-0.645	-0.988	-0.700	-0.644	-0.329	-0.238	-0.561	-0.706
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.9: Summary Stats, Q1 2006 – Long Term Relationships

Summary stats for Q1 2006	ITEM 9: FOCUS ON BUILDING LONG TERM RELATIONSHIPS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	-0.292	-0.630	-0.462	-0.056	-0.611	-0.774	0.044	-0.304	-0.403	-0.350
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.10: Summary Stats, Q1 2006 – Understands Personal Banking Needs

<i>Summary stats for Q1 2006</i>	ITEM 10: UNDERSTANDS MY PERSONAL BANKING NEEDS									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	0.223	0.123	-0.088	0.515	0.214	0.203	0.146	-0.075	0.084	-0.010
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Table B 2.11: Summary Stats, Q1 2006 – Provides Good Advice

<i>Summary stats for Q1 2006</i>	ITEM 11: PROVIDES GOOD ADVICE									
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sample sizes	300	152	250	302	200	75	152	155	250	251
Sample means	-0.280	-0.738	-0.246	-0.047	-0.024	0.105	-0.506	-0.240	-0.419	-0.258
Sample standard deviations	0.882	0.856	0.934	0.896	0.920	0.901	0.953	0.959	0.901	0.892
Sample variances	0.777	0.732	0.872	0.803	0.846	0.813	0.909	0.920	0.811	0.795
Weights for pooled variance	0.144	0.073	0.120	0.145	0.096	0.036	0.073	0.074	0.120	0.120

Appendix B.3: One-Way ANOVA Testing – Q4 2006

Table B 3.1: One-Way ANOVA Results, Q4 2006 - Efficient Staff

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.846
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	92.520	9	10.280	12.386	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3473.079	4082			

Table B 3.2: One-Way ANOVA Results, Q4 2006 – Shorter Queues

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.396
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	125.751	9	13.972	16.834	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3506.310	4082			

Table B 3.3: One-Way ANOVA Results, Q4 2006 – Convenient Locations

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.260
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	159.799	9	17.755	21.392	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3540.357	4082			

Table B 3.4: One-Way ANOVA Results, Q4 2006 – Friendly Staff

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.173
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	187.733	9	20.859	25.132	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3568.292	4082			

Table B 3.5: One-Way ANOVA Results, Q4 2006 – After Sales Service

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.193
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	190.192	9	21.132	25.461	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3570.751	4082			

Table B 3.6: One-Way ANOVA Results, Q4 2006 – Response Time

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.167
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	126.368	9	14.041	16.917	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3506.927	4082			

Table B 3.7: One-Way ANOVA Results, Q4 2006 - Reliability

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.365
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	231.092	9	25.677	30.936	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3611.651	4082			

Table B 3.8: One-Way ANOVA Results, Q4 2006 – Appearance of Facilities

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.341
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	56.507	9	6.279	7.565	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3437.066	4082			

Table B 3.9: One-Way ANOVA Results, Q4 2006 – Long Term Relationships

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.143
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	100.798	9	11.200	13.494	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3481.357	4082			

Table B 3.10: One-Way ANOVA Results, Q4 2006 – Personal Banking Needs

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	0.203
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	162.351	9	18.039	21.734	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3542.910	4082			

Table B 3.11: One-Way ANOVA Results, Q4 2006 – Provides Good Advice

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.203
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	102.007	9	11.334	13.656	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3482.566	4082			

Table B 3.12: One-Way ANOVA Results, Q4 2006 – Welcoming Environment

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.493
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	169.220	9	18.802	22.654	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3549.779	4082			

Table B 3.13: One-Way ANOVA Results, Q4 2006 – Feedback on Processes

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.200
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	135.587	9	15.065	18.151	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3516.146	4082			

Table B 3.14: One-Way ANOVA Results, Q4 2006 – Feedback Provided Timeously

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.408
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	499.671	9	55.519	66.891	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3880.230	4082			

Table B 3.15: One-Way ANOVA Results, Q4 2006 – Knowledge of Product Range

Results of one-way ANOVA	
Number of samples	10
Total sample size	4083
Grand mean	-0.430
Pooled variance	0.830
Pooled standard deviation	0.911

Source	SS	df	MS	F	p-value
Between variation	163.099	9	18.122	21.834	0.0000
Within variation	3380.559	4073	0.830		
Total variation	3543.658	4082			

Appendix B.4: T Test: Significance of Country Means – Q4 2006

Table B 4.1: T Test: Significance of Country Means, Q4 2006 - Efficient Staff

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std sample mean - pop mean	1.101	0.988	0.800	0.779	0.518	0.882	0.864	0.836	0.905	0.769
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	28.709	20.069	19.256	21.056	10.588	13.706	15.226	16.536	21.317	19.038
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B 4.2: T Test: Significance of Country Means, Q4 2006 – Shorter Queues

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mean	0.416	0.925	0.403	0.249	0.409	0.259	0.544	0.278	0.245	0.399
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	10.846	18.779	9.698	6.744	8.358	4.028	9.577	5.511	5.774	9.884
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B 4.3: T Test: Significance of Country Means, Q4 2006 – Convenient Locations

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mean	0.015	0.161	0.354	0.481	-0.065	-0.068	0.285	0.475	0.419	0.318
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	0.403	3.278	8.517	12.993	-1.330	-1.059	5.016	9.392	9.874	7.879
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	0.3436	0.0006	0.0000	0.0000	#NUM!	#NUM!	0.0000	0.0000	0.0000	0.0000

Table B 4.4: T Test: Significance of Country Means, Q4 2006 – Friendly Staff

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mean	0.022	0.117	0.586	0.069	0.299	0.019	0.480	0.203	0.191	-0.141
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	0.585	2.374	14.097	1.856	6.119	0.298	8.453	4.027	4.488	-3.499
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	0.2793	0.0091	0.0000	0.0320	0.0000	0.3828	0.0000	0.0000	0.0000	#NUM!

Table B 4.5: T Test: Significance of Country Means, Q4 2006 – After Sales Service

t Test: Significance of country means										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.313	0.048	-0.360	-0.282	0.043	0.513	-0.453	-0.343	-0.201	-0.165
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-8.159	0.978	-8.672	-7.638	0.877	7.960	-7.986	-6.780	-4.743	-4.091
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	0.1643	#NUM!	#NUM!	0.1906	0.0000	#NUM!	#NUM!	#NUM!	#NUM!

Table B 4.6: T Test: Significance of Country Means, Q4 2006 – Response Time

t Test: Significance of country means										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.066	0.428	0.165	0.322	0.303	0.510	-0.119	0.094	0.037	0.167
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-1.729	8.686	3.980	8.694	6.194	7.922	-2.089	1.866	0.874	4.146
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	0.0000	0.0000	0.0000	0.0000	0.0000	#NUM!	0.0315	0.1911	0.0000

Table B 4.7: T Test: Significance of Country Means, Q4 2006 – Reliability

t Test: Significance of country means										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	0.419	0.066	0.234	0.761	0.114	-0.022	0.097	0.342	0.422	0.610
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	10.931	1.330	5.640	20.567	2.333	-0.342	1.701	6.772	9.942	15.109
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	0.0000	0.0922	0.0000	0.0000	0.0101	#NUM!	0.0451	0.0000	0.0000	0.0000

Table B 4.8: T Test: Significance of Country Means, Q4 2006 – Appearance of Facilities

t Test: Significance of country means										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.357	-0.477	-0.303	-0.250	-0.173	-0.370	-0.168	-0.375	-0.326	-0.571
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-9.315	-9.689	-7.303	-6.759	-3.538	-5.747	-2.955	-7.424	-7.675	-14.148
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

Table B 4.9: T Test: Significance of Country Means, Q4 2006 – Long Term Relationships

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.356	-0.222	-0.249	0.088	-0.257	-0.254	-0.224	-0.190	0.030	0.018
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-9.286	-4.504	-6.002	2.387	-5.251	-3.944	-3.939	-3.756	0.718	0.449
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	0.0087	#NUM!	#NUM!	#NUM!	#NUM!	0.2366	0.3268

Table B 4.10 T Test: Significance of Country Means, Q4 2006 – Understands Personal Banking Needs

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	0.236	0.352	-0.080	0.383	0.173	0.176	-0.299	0.304	0.127	0.438
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	6.142	7.153	-1.916	10.365	3.543	2.737	-5.273	6.008	2.997	10.850
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	0.0000	0.0000	#NUM!	0.0000	0.0002	0.0034	#NUM!	0.0000	0.0014	0.0000

Table B 4.11 T Test: Significance of Country Means, Q4 2006 – Provides Good Advice

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.232	-0.348	-0.255	-0.166	0.063	0.269	-0.399	-0.324	-0.172	-0.318
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-6.038	-7.071	-6.131	-4.499	1.279	4.182	-7.031	-6.414	-4.051	-7.876
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	#NUM!	0.1008	0.0000	#NUM!	#NUM!	#NUM!	#NUM!

Table B 4.12: T Test: Significance of Country Means, Q4 2006 – Welcoming Environment

<i>t Test: Significance of country means</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.487	-0.810	-0.447	-0.542	-0.177	-0.266	-0.299	-0.672	-0.288	-0.799
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-12.706	-16.442	-10.751	-14.663	-3.623	-4.129	-5.262	-13.293	-6.777	-19.790
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

Table B 4.13: T Test: Significance of Country Means, Q4 2006 – Feedback on Processes

t Test: Significance of country means

	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.178	-0.204	-0.241	-0.190	-0.169	-0.044	-0.004	-0.334	-0.585	0.089
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-4.632	-4.139	-5.798	-5.131	-3.449	-0.690	-0.065	-6.613	-13.778	2.215
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.0136

Table B 4.14: T Test: Significance of Country Means, Q4 2006 – Feedback Provided Timeously

t Test: Significance of country means

	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.181	-0.716	-0.167	-1.023	-0.534	-0.838	0.059	0.109	-0.446	-0.269
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-4.721	-14.531	-4.014	-27.672	-10.920	-13.020	1.042	2.162	-10.517	-6.651
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.1493	0.0157	#NUM!	#NUM!

Table B 4.15: T Test: Significance of Country Means, Q4 2006 – Knowledge of Product Range

t Test: Significance of country means

	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Std Sample mean - pop mear	-0.040	-0.309	-0.440	-0.677	-0.547	-0.766	-0.364	-0.404	-0.359	-0.546
Square Root of n	23.7	17.8	22.3	23.9	19.5	14.1	15.7	18.2	22.1	22.2
Std dev / SQRT n	0.038	0.049	0.042	0.037	0.049	0.064	0.057	0.051	0.042	0.040
t =	-1.030	-6.269	-10.601	-18.301	-11.180	-11.902	-6.413	-7.995	-8.445	-13.516
df = (n-1)	559	315	495	570	379	199	247	329	487	493
p-value	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

Appendix B.5: T Test: Significance of Differences between Country Means over Time (Q1 – Q4 2006)

Table B 5.1: Significance of Differences between Country Means over Time - Efficient Staff

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	3.516	1.506	4.564	1.545	-1.658	1.660	5.095	4.005	-0.751	-1.478
p-value	0.0005	0.1328	0.0000	0.1228	0.0979	0.0980	0.0000	0.0001	0.4530	0.1399

Table B 5.2: Significance of Differences between Country Means over Time – Shorter Queues

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	-0.666	1.776	2.482	4.011	1.559	1.237	-0.591	3.011	-2.112	0.325
p-value	0.5058	0.0763	0.0133	0.0001	0.1195	0.2171	0.5548	0.0027	0.0350	0.7450

Table B 5.3: Significance of Differences between Country Means over Time – Convenient Locations

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	1.985	4.944	-1.182	4.434	3.170	3.401	5.364	4.542	3.267	3.001
p-value	0.0475	0.0000	0.2375	0.0000	0.0016	0.0008	0.0000	0.0000	0.0011	0.0028

Table B 5.4: Significance of Differences between Country Means over Time – Friendly Staff

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	-1.176	1.597	4.266	1.283	3.990	-1.841	6.881	0.331	1.494	-2.381
p-value	0.2400	0.1110	0.0000	0.1999	0.0001	0.0667	0.0000	0.7410	0.1355	0.0175

Table B 5.5: Significance of Differences between Country Means over Time – After Sales Service

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	4.514	3.887	-0.169	3.552	1.466	0.369	-2.929	1.432	4.131	5.805
p-value	0.0000	0.0001	0.8655	0.0004	0.1431	0.7123	0.0036	0.1529	0.0000	0.0000

**Table B 5.6: Significance of Differences between Country Means over Time –
Response Time**

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	-3.111	2.227	0.844	7.974	-1.334	1.749	-3.914	-0.383	1.960	3.614
p-value	0.0019	0.0265	0.3992	0.0000	0.1827	0.0814	0.0001	0.7018	0.0504	0.0003

**Table B 5.7: Significance of Differences between Country Means over Time –
Reliability**

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	0.840	6.909	-0.508	5.724	-1.116	1.419	1.228	-1.586	1.993	0.236
p-value	0.4013	0.0000	0.6116	0.0000	0.2648	0.1569	0.2204	0.1135	0.0466	0.8138

**Table B 5.8: Significance of Differences between Country Means over Time –
Appearance of Facilities**

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	7.907	-11.066	4.746	11.677	6.400	2.231	1.708	-1.516	3.270	1.943
p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0265	0.0884	0.1301	0.0011	0.0524

**Table B 5.9: Significance of Differences between Country Means over Time –
Long Term Relationships**

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	-0.992	4.758	2.955	2.287	4.310	4.234	-2.829	1.262	6.021	5.300
p-value	0.3216	0.0000	0.0032	0.0224	0.0000	0.0000	0.0049	0.2074	0.0000	0.0000

**Table B 5.10: Significance of Differences between Country Means over Time –
Understands Personal Banking Needs**

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	0.202	2.673	0.110	-2.090	-0.499	-0.221	-4.716	4.171	0.600	6.451
p-value	0.8403	0.0078	0.9123	0.0369	0.6180	0.8252	0.0000	0.0000	0.5484	0.0000

Table B 5.11: Significance of Differences between Country Means over Time – Provides Good Advice

<i>t Test: Significance of differences between country means over time (Q1 - Q4 2006)</i>										
	Bots	Egypt	Ghana	Kenya	Maur	Seych	Tanz	Ugan	Zam	Zim
Sp =	0.899	0.869	0.928	0.888	0.942	0.908	0.917	0.931	0.925	0.896
t =	0.755	4.545	-0.124	-1.897	1.048	1.336	1.133	-0.926	3.435	-0.860
p-value	0.4502	0.0000	0.9015	0.0581	0.2949	0.1828	0.2578	0.3550	0.0006	0.3899

APPENDIX C: DATA FREQUENCY TABLES

Appendix C.1: Data Frequency Tables – Q4 2006

The data was summarised by tabulating the frequency (and proportion) of occurrence of each preference permutation, as illustrated below.

Table C 1.1: Botswana - Frequency Count and Proportions of Attributes

Botswana	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	216	77	29	32	18	15	41	6	16	37	13	4	27	6	23
2	85	66	40	47	7	36	58	19	15	65	33	12	36	16	25
3	57	40	43	21	15	37	76	26	21	57	28	22	41	33	43
4	202	377	448	460	520	472	385	509	508	401	486	522	456	505	469

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.4	0.1	0.1	0.1	0	0	0.1	0	0	0.1	0	0	0	0	0
2	0.2	0.1	0.1	0.1	0	0.1	0.1	0	0	0.1	0.1	0	0.1	0	0
3	0.1	0.1	0.1	0	0	0.1	0.1	0	0	0.1	0.1	0	0.1	0.1	0.1
4	0.4	0.7	0.8	0.8	0.9	0.8	0.7	0.9	0.9	0.7	0.9	0.9	0.8	0.9	0.8

Table C 1.2: Egypt - Frequency Count and Proportions of Attributes

Egypt	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	99	86	19	23	10	24	11	0	5	25	1	1	4	2	6
2	53	55	23	26	19	38	19	7	11	29	12	4	13	1	6
3	27	31	25	20	22	44	29	8	20	38	16	4	15	10	7
4	137	144	249	247	265	210	257	301	280	224	287	307	284	303	297

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.3	0.3	0.1	0.1	0	0.1	0	0	0	0.1	0	0	0	0	0
2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0	0	0	0	0
3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0	0
4	0.4	0.5	0.8	0.8	0.8	0.7	0.8	1	0.9	0.7	0.9	1	0.9	1	0.9

Table C 1.3: Ghana - Frequency Count and Proportions of Attributes

Ghana	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	128	52	61	76	17	34	35	9	7	33	13	5	8	11	7
2	65	64	39	68	16	54	45	25	27	23	14	19	16	9	12
3	47	41	43	40	26	35	52	23	28	26	49	24	22	19	21
4	256	339	353	312	437	373	364	439	434	414	420	448	450	457	456
Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.3	0.1	0.1	0.2	0	0.1	0.1	0	0	0.1	0	0	0	0	0
2	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0	0	0	0	0	0
3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0	0
4	0.5	0.7	0.7	0.6	0.9	0.8	0.7	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.9

Table C 1.4: Kenya - Frequency Count and Proportions of Attributes

Kenya	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	138	58	74	31	9	34	106	6	26	59	14	5	6	4	1
2	66	49	68	41	15	50	97	23	47	61	31	12	4	4	3
3	73	43	56	32	22	81	71	27	45	50	30	19	7	7	8
4	294	421	373	467	525	406	297	515	453	401	496	535	554	556	559
Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.2	0.1	0.1	0.1	0	0.1	0.2	0	0	0.1	0	0	0	0	0
2	0.1	0.1	0.1	0.1	0	0.1	0.2	0	0.1	0.1	0.1	0	0	0	0
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0.1	0	0	0	0
4	0.5	0.7	0.7	0.8	0.9	0.7	0.5	0.9	0.8	0.7	0.9	0.9	1	1	1

Table C 1.5: Mauritius - Frequency Count and Proportions of Attributes

Mauritius	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	64	56	15	47	25	32	33	13	10	31	23	19	2	3	7
2	45	48	26	30	27	44	22	16	13	35	25	18	11	8	12
3	31	27	19	34	28	38	25	21	15	38	40	25	13	10	16
4	240	249	320	269	300	266	300	330	342	276	292	318	354	359	345
Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.2	0.1	0	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.1	0	0	0
2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0	0	0	0
3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0
4	0.6	0.7	0.8	0.7	0.8	0.7	0.8	0.9	0.9	0.7	0.8	0.8	0.9	0.9	0.9

Table C 1.6: Seychelles - Frequency Count and Proportions of Attributes

Seychelles	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	52	14	11	10	27	32	6	4	4	12	15	8	3	1	1
2	24	21	13	19	26	26	11	3	11	17	13	8	2	6	0
3	26	18	8	16	16	16	13	7	7	28	26	7	1	4	7
4	98	147	168	155	131	126	170	186	178	143	146	177	194	189	192

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.3	0.1	0.1	0.1	0.1	0.2	0	0	0	0.1	0.1	0	0	0	0
2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0	0	0	0
3	0.1	0.1	0	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0	0	0	0
4	0.5	0.7	0.8	0.8	0.7	0.6	0.9	0.9	0.9	0.7	0.7	0.9	1	0.9	1

Table C 1.7: Tanzania - Frequency Count and Proportions of Attributes

Tanzania	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	75	41	17	24	4	6	14	10	10	11	6	7	9	5	9
2	30	38	26	39	6	16	27	7	14	7	8	9	8	8	5
3	27	21	26	44	10	20	18	17	9	12	11	14	3	6	10
4	116	148	179	141	228	206	189	214	215	218	223	218	228	229	224

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.3	0.2	0.1	0.1	0	0	0.1	0	0	0	0	0	0	0	0
2	0.1	0.2	0.1	0.2	0	0.1	0.1	0	0.1	0	0	0	0	0	0
3	0.1	0.1	0.1	0.2	0	0.1	0.1	0.1	0	0	0	0.1	0	0	0
4	0.5	0.6	0.7	0.6	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Table C 1.8: Uganda - Frequency Count and Proportions of Attributes

Uganda	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	86	24	48	29	3	11	35	4	13	38	9	4	6	5	15
2	49	39	31	30	17	26	35	11	14	29	7	6	13	12	11
3	45	32	34	24	9	23	30	13	18	27	15	10	11	15	24
4	150	235	217	247	301	270	230	302	285	236	299	310	300	298	280

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.3	0.1	0.1	0.1	0	0	0.1	0	0	0.1	0	0	0	0	0
2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0	0	0	0	0
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0	0	0	0	0.1
4	0.5	0.7	0.7	0.7	0.9	0.8	0.7	0.9	0.9	0.7	0.9	0.9	0.9	0.9	0.8

Table C 1.9: Zambia - Frequency Count and Proportions of Attributes

Zambia	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	166	52	45	27	13	14	49	9	29	30	9	16	10	1	18
2	37	44	58	62	23	39	70	16	35	37	17	21	9	9	11
3	40	39	34	29	16	34	44	19	26	50	37	33	28	19	40
4	245	353	351	370	436	401	325	444	398	371	425	418	441	459	419

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.3	0.1	0.1	0.1	0	0	0.1	0	0.1	0.1	0	0	0	0	0
2	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0	0	0	0	0
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0	0.1
4	0.5	0.7	0.7	0.8	0.9	0.8	0.7	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9

Table C 1.10: Zimbabwe - Frequency Count and Proportions of Attributes

Zimbabwe	Attribute														
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	112	56	51	16	20	35	81	6	20	59	12	7	6	5	8
2	65	62	49	27	22	28	87	10	46	54	14	3	10	5	12
3	67	38	51	28	15	38	57	14	33	61	23	14	20	20	15
4	250	338	343	423	437	393	269	464	395	320	445	470	458	464	459

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.2	0.1	0.1	0	0	0.1	0.2	0	0	0.1	0	0	0	0	0
2	0.1	0.1	0.1	0.1	0	0.1	0.2	0	0.1	0.1	0	0	0	0	0
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0	0	0	0	0
4	0.5	0.7	0.7	0.9	0.9	0.8	0.5	0.9	0.8	0.6	0.9	1	0.9	0.9	0.9

Appendix C.2: Data Frequency Tables – Q1 2006

The data was summarised by tabulating the frequency (and proportion) of occurrence of each preference permutation, as illustrated below.

Table C 2.1: Botswana - Frequency Count and Proportions of Attributes

Botswana	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	102	51	15	27	6	16	33	3	13	28	6
2	49	53	24	23	10	42	48	6	9	29	7
3	35	28	22	32	10	34	37	6	23	42	31
4	114	168	239	218	274	208	182	285	255	201	256
Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.3	0.2	0.1	0.1	0	0.1	0.1	0	0	0.1	0
2	0.2	0.2	0.1	0.1	0	0.1	0.2	0	0	0.1	0
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0.1
4	0.4	0.6	0.8	0.7	0.9	0.7	0.6	1	0.9	0.7	0.9

Table C 2.2: Egypt - Frequency Count and Proportions of Attributes

Egypt	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	51	32	6	6	3	9	3	22	5	13	2
2	21	35	8	16	9	24	4	21	0	13	1
3	19	26	10	12	10	15	7	24	5	18	6
4	61	59	128	118	130	104	138	85	142	108	143
Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.3	0.2	0	0	0	0.1	0	0	0	0.1	0
2	0.1	0.2	0.1	0.1	0.1	0.2	0	0.1	0	0.1	0
3	0.1	0.2	0.1	0.1	0.1	0.1	0	0.2	0	0.1	0
4	0.4	0.4	0.8	0.8	0.9	0.7	0.9	0.6	0.9	0.7	0.9

Table C 2.3: Ghana - Frequency Count and Proportions of Attributes

Ghana	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	47	31	45	38	9	12	30	1	5	17	15
2	31	38	33	22	18	36	31	7	5	21	8
3	33	19	29	32	9	26	29	14	21	17	21
4	139	162	143	158	214	176	160	228	219	195	206

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.2	0.1	0.2	0.2	0	0	0.1	0	0	0.1	0.1
2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1
4	0.6	0.6	0.6	0.6	0.9	0.7	0.6	0.9	0.9	0.8	0.8

Table C 2.4: Kenya - Frequency Count and Proportions of Attributes

Kenya	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	82	28	32	18	6	7	38	2	17	56	16
2	42	19	33	32	15	25	50	2	25	42	17
3	35	24	31	24	12	20	38	7	27	43	39
4	143	231	206	228	269	250	176	291	233	161	230

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.3	0.1	0.1	0.1	0	0	0.1	0	0.1	0.2	0.1
2	0.1	0.1	0.1	0.1	0	0.1	0.2	0	0.1	0.1	0.1
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0.1
4	0.5	0.8	0.7	0.8	0.9	0.8	0.6	1	0.8	0.5	0.8

Table C 2.5: Mauritius - Frequency Count and Proportions of Attributes

Mauritius	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	44	33	12	12	12	30	21	2	5	16	13
2	37	21	12	19	20	26	21	7	9	16	12
3	24	15	7	21	12	27	23	7	4	36	24
4	95	131	169	148	156	117	135	184	182	132	151

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0	0	0.1	0.1
2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1
3	0.1	0.1	0	0.1	0.1	0.1	0.1	0	0	0.2	0.1
4	0.5	0.7	0.8	0.7	0.8	0.6	0.7	0.9	0.9	0.7	0.8

Table C 2.6: Seychelles - Frequency Count and Proportions of Attributes

Seychelles	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	25	13	0	6	15	3	1	1	0	7	4
2	5	3	5	13	12	17	6	2	1	4	7
3	5	5	1	7	6	8	7	3	3	17	13
4	40	54	69	49	42	47	61	69	71	47	51

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.3	0.2	0	0.1	0.2	0	0	0	0	0.1	0.1
2	0.1	0	0.1	0.2	0.2	0.2	0.1	0	0	0.1	0.1
3	0.1	0.1	0	0.1	0.1	0.1	0.1	0	0	0.2	0.2
4	0.5	0.7	0.9	0.7	0.6	0.6	0.8	0.9	0.9	0.6	0.7

Table C 2.7: Tanzania - Frequency Count and Proportions of Attributes

Tanzania	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	33	45	13	10	9	7	8	7	7	10	3
2	16	19	11	10	13	19	20	10	15	13	6
3	12	6	4	10	8	31	13	8	20	31	9
4	91	82	124	122	122	95	111	127	110	98	134

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.2	0.3	0.1	0.1	0.1	0	0.1	0	0	0.1	0
2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0
3	0.1	0	0	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1
4	0.6	0.5	0.8	0.8	0.8	0.6	0.7	0.8	0.7	0.6	0.9

Table C 2.8: Uganda - Frequency Count and Proportions of Attributes

Uganda	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	34	16	18	16	3	21	18	5	6	11	7
2	14	14	14	19	11	19	25	9	9	13	8
3	20	8	11	15	4	8	32	14	12	15	16
4	87	117	112	105	137	107	80	127	128	116	124

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.2	0.1	0.1	0.1	0	0.1	0.1	0	0	0.1	0
2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
3	0.1	0.1	0.1	0.1	0	0.1	0.2	0.1	0.1	0.1	0.1
4	0.6	0.8	0.7	0.7	0.9	0.7	0.5	0.8	0.8	0.7	0.8

Table C 2.9: Zambia - Frequency Count and Proportions of Attributes

Zambia	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	94	30	24	21	5	12	26	6	6	23	3
2	34	41	34	28	11	18	29	8	14	18	15
3	31	36	22	23	12	26	35	12	12	28	13
4	91	143	170	178	222	194	160	224	218	181	219

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.4	0.1	0.1	0.1	0	0	0.1	0	0	0.1	0
2	0.1	0.2	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0.1
3	0.1	0.1	0.1	0.1	0	0.1	0.1	0	0	0.1	0.1
4	0.4	0.6	0.7	0.7	0.9	0.8	0.6	0.9	0.9	0.7	0.9

Table C 2.10: Zimbabwe - Frequency Count and Proportions of Attributes

Zimbabwe	Attribute										
Rank (Count)	1	2	3	4	5	6	7	8	9	10	11
1	81	37	17	14	3	8	55	3	13	16	4
2	41	48	34	24	10	22	31	6	10	13	12
3	35	14	20	29	9	25	43	9	12	31	24
4	94	152	180	184	229	196	122	233	216	191	211

Rank (Proportion)	1	2	3	4	5	6	7	8	9	10	11
1	0.3	0.1	0.1	0.1	0	0	0.2	0	0.1	0.1	0
2	0.2	0.2	0.1	0.1	0	0.1	0.1	0	0	0.1	0
3	0.1	0.1	0.1	0.1	0	0.1	0.2	0	0	0.1	0.1
4	0.4	0.6	0.7	0.7	0.9	0.8	0.5	0.9	0.9	0.8	0.8