

**Measuring Perception On
Received Service Levels To
Improve Client Retention**

by

Jens Martin Opara

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Supervisor: Dr. Pumela Msweli-Mbanga

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Abstract

The field of Logistics Management increasingly becomes a more critical field of activity in almost every industry. Diminishing margins, rising costs and every increasing client expectations demand a strong focus on client retention in order to reap the full benefits from efficient client-supplier relationships. This dissertation delivers the tools to improve the client retention rate at Kuehne & Nagel, South Africa, by measuring the present clients perception of service levels experienced. The survey furthermore takes into account how important clients rate different service criteria and how Kuehne & Nagel's performance compares to the perceived performance of competitor firms.

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I. Introduction

This chapter of the dissertation is structured into 4 sections. The first sections aims to provide the necessary background on the sponsor, Kuehne & Nagel, the role of Logistics management in the business process, and the link between Logistics and Marketing. The second section highlights the importance of client retention for the sustainable success of an organization. The third section deals with global and South African market developments particularly affecting the Logistics industry, which call for improvements of client retention levels to ensure successful competitive placing of the organisation. Finally, in the last section the research objective, the research questions and a brief summary on the research design will be given as guiding tool through the dissertation.

1. Background

1.1. Kuehne & Nagel

Founded as a family company in 1890, Kuehne & Nagel is today one of the world's leading logistics management companies, represented by more than 17,500 employees in 600 locations spread over 94 countries worldwide, with headquarters based in Schindeleggi, Switzerland. Its strong market position lies in the transport management of ocean- and airfreight, with a clear focus on contract logistics and providing IT-based Supply Chain Management services.

Kuehne & Nagel (Pty) Ltd is a wholly owned subsidiary of Kuehne & Nagel International and services the South African importers and exporters with almost 300 staff members out of 10 locations. Logistics solutions offered entail:

Contract Logistics

- Warehousing
- Distribution
- E-Solutions

International Forwarding

- Airfreight
- Seafreight
- Roadfreight
- Rail

Special Industry Logistics, i.e. Hotel, Airport, Automotive, Defence, etc

1.2. Logistics Management

Logistics management is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point-of-origin to the point-of-consumption in order to meet customers' requirements.

(Council of Logistics Management)

In recent years, effective logistics management has been recognized as a key element in improving both the profitability and the competitive performance of firms. In the late 1980s and early 1990s, customer service took centre stage in many organisations. Even organisations that had previously adhered to the "marketing concept" were re-examining what it meant to be customer driven.

The trend toward a strong customer focus continues today. A marketing orientation coupled with operational efficiencies and effectiveness provides organisations with opportunities to gain competitive advantage.

In order for a firm to be successful, any marketing effort must integrate the ideas of having the right *product*, at the right *price*, combined with the right *promotion*, and available in the right *place* – these are the four Ps of the marketing mix. Logistics plays a critical role, particularly in support of getting the product to the right place.

The value added to products beyond that added by manufacturing (*form utility*) may be called *place, time or possession utility* (Weld, 1916). The logistics activity provides place and time utility, while other marketing activities provide possession utility. An efficient and economical logistics system is similar to a tangible asset on a corporation's books. Logistics competency cannot be readily duplicated by the firm's competitors. If a company can provide its customers with products quickly and at low cost, it can gain market share advantages over its competitors. It may be able to either sell its products at lower costs as a result of logistics efficiencies or to provide a higher level of customer service, thereby creating goodwill.

1.3. Logistics and the Marketing Mix

The services provided and performance delivered by Kuehne & Nagel, integrally impact on almost all logistics activities of the client:

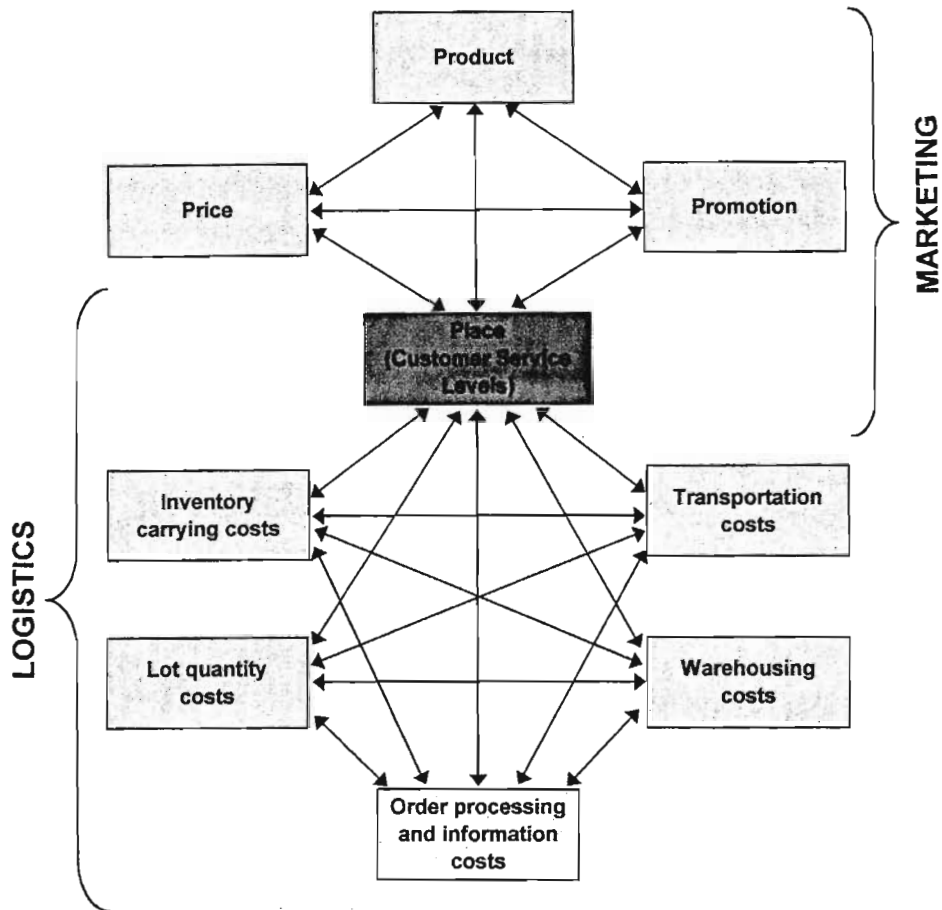


Figure 1 – Costs trade-offs in Marketing and Logistics Source: Adapted from Douglas M. Lambert, *The Development of an Inventory Costing Methodology: A Study of the cost associated with holding Inventory* (Chicago: National Council of Physical Distribution Management 1976), P.7.

Inventory Carrying Costs: Just-In-Time delivery concepts and dependability on delivery commitments.

Transportation Costs: Selection of carriers and transport routes

Warehousing Costs: Management of client's warehouses

Information costs: Flow of information, Track & Trace systems, EDI Links

Being part of the logistics process, the service levels delivered reflect directly on the perception of the client's performance in the market, and on the client's competitiveness in terms of total costs. Sustainable success for Kuehne & Nagel in South Africa depends on the standard of service levels provided to clients and much more importantly on the client's perception of the service levels received.

Above highlights the necessity to provide excellent service in order to ensure brand value. But, next to this, client retention gains even more importance:

2. Client Retention

Generally, research has found that the profit associated with serving and retaining current customers is significantly higher than the profits associated with new customers. Data show this higher profitability is attained through lower costs of serving experienced customers and higher revenues from increased purchases of satisfied customers, as well as the compounding effect of customer retention over time (Reichheld, 1996)

Copaccino (1997), referring to client retention, concluded that companies that do a better job of keeping their customers, generate better financial results than do companies with poor retention records. He estimates that customer-acquisition costs might well equal a full year's net profit for that same customer and refers to a study that apparently indicated that companies could improve profits anywhere from 25% to 85%, by reducing customer defections by 5%. Kotler (1997) quantified this point by stating that the cost of attracting a new customer is estimated to be five times the cost of keeping a current customer happy. While doing some work for a major market symphony orchestra, Zemke (2000) discovered that it costs 67 cents on the dollar to attract a new subscriber, but only 7 cents on the dollar to entice an existing two-year subscriber to buy a third-year concert season subscription.

Wulf, Odekerken-Schroeder, and Schumacher (April 2000) published a survey on buyer-seller relationship, based on two new constructs on relationship success, one of them being the seller retention orientation (as perceived by the buyer).

They state that buyer perceptions are at the basis of seller retention orientation, whereas the construct of market orientation is based upon a company's internal assessment of customer value delivery.

Delivering a picture for the importance of service quality and relationship building for client retention, they quote Simpson, Gangestad and Lerma (1990), who had demonstrated that people in search of a romantic relationship find potential partners to be more attractive than do people already involved in romantic relationships.

Emphasising the importance of surveys, Kotler (1997) confirmed studies that show that while customers are dissatisfied with one out of every four purchases, less than 5% of dissatisfied customers will complain. Most customers will buy less or switch suppliers rather than complain. Therefore, companies cannot use complaint levels as a measure of customer satisfaction.

Last areas of concern are critical developments on the South African market:

3. Market Forces

3.1. Sales cost

The complex field of logistics requires field sales to be versatile and able to consult with prospective clients in all areas of their logistic activities. Due to the limited skills/qualifications available on the local job-market, base salaries for competent sales professionals have increased to a level of over R 150,000 per year. This has led to a considerable increase of direct costs for attracting a new client.

3.2. Set-up cost

As Kuehne & Nagel's services form an integral part of the logistics activities of every client, it is imperative to analyse the workflows, objectives, demands of a new client and to ensure that all services provided meet the expectations of the client and are flawlessly integrated.

For major clients, this integration process can take up to 3 - 6 months to complete, followed by close benchmarking exercises combined with weekly/monthly meetings to ensure constant improvement of the implemented process. Both the initial set-up and the ongoing process of improvement are to be seen as fixed costs, and therefore do not directly result in higher turnovers.

3.3. Increasing service expectations

In recent years, effective logistics management has been recognized as a key element in improving both the profitability and the competitive performance of firms. (Lambert, 2001). This development has led to ever increasing service demands towards logistics management organisation such as Kuehne & Nagel and the performance of these external partners is monitored closely at all times.

3.4. Diminishing margin

Globalisation of trade has led to ever increasing volumes of goods being transported around the world. Deregulations of transportation, together with declining import barriers have resulted in an increase of competitors in the area of transport management. The market, turning into a buyer's market, has in turn led to a steady decline in transportation costs with decreasing profit margins for the logistics management sector.

4. Summary

Bearing the aforementioned points in mind, it is now more vital than ever before that companies in the sector of external logistics management, such as Kuehne & Nagel, ensure client retention, thus minimising sales and set-up costs, simultaneously developing strong and steadily growing partnerships with existing clients.

This will result in a win/win-scenario for both parties, i.e. clients reap the benefits of a sustainable competitive advantage due to professional handling of their logistics, whilst the logistics provider ensures a constant flow of revenue, to (a) fully recover the set-up and sales costs and (b) to rely on a long-term gross-profit contribution from the client.

The purpose of this research was to examine the present service-level ratings of Kuehne & Nagel South Africa, as perceived by its current and past clients. It aimed to obtain answers to the following questions:

Research Question 1:

How important are the respective service-criteria to the client?

Research Question 2:

How does a client rate Kuehne & Nagel's service quality?

Research Question 3:

How does the client's rating of Kuehne & Nagel's service levels compare to their experiences with a competitor?

A quantitative study in form of a census was conducted with all active Kuehne & Nagel clients. A self-administered questionnaire was utilised to achieve the above objective.

Only with this detailed analysis will the management of Kuehne & Nagel (Pty) Ltd be able to take corrective measures on service flaws in order to emphasise and build on service strengths. By aligning the subjective understanding of service excellence with client expectations, Kuehne & Nagel will be able to gain sustainable competitive advantage in the local market and thus improve the client retention rate on a long-term basis.

In the following chapter, existing research in the areas of consumer satisfaction in the service industry, together with various approaches and models for the measurement of service levels will be introduced to provide the necessary background for the research methodology applied to this survey.

II. Literature Review

1. Introduction

As just stated, this section aims to provide the necessary background on existing research in the field of customer satisfaction in the service industry and the measurement thereof. The following diagram shall serve as a map through this section to ensure that the reader can follow the thought pattern of the author.

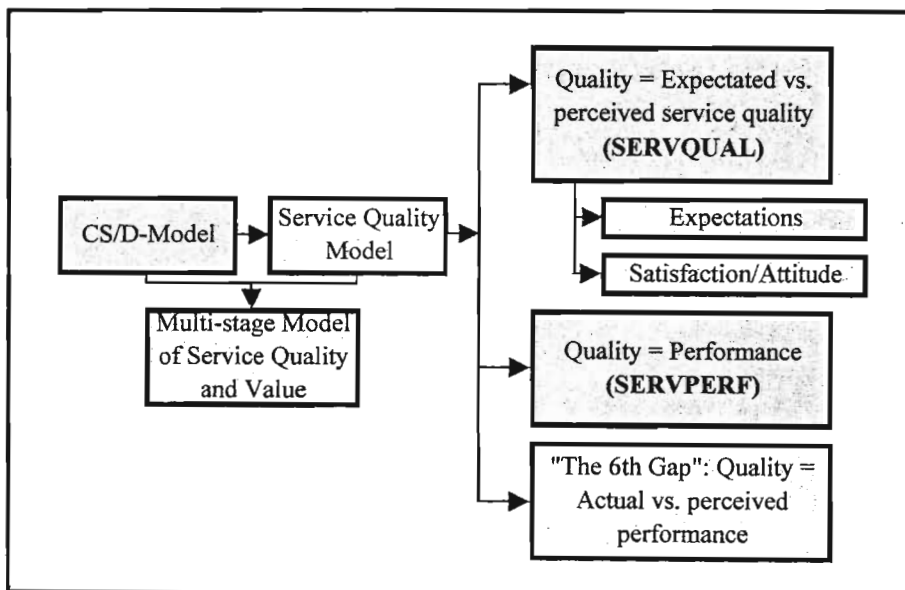


Figure 2 – Overview on ‘Literature Review’-Chapter

At the end of this chapter, the reader should have an understanding of the Consumer Satisfaction/Dissatisfaction-Model (CS/D) of the late 70’s and the Service Quality Model of the mid 80’s, with a sidestep to the Multi-Stage Model on Service Quality and Value, developed in the early 90’s. Differing theories developed, all based on the Service Quality Model. One such theory leads to the SERVQUAL-scale, with deep discussions about the terms: expectation, satisfaction and attitude, yet another theory suggesting the SERVPERF scale, and finally a theory focusing on a ‘6th gap’, which suggests itself for service industries with high credence values.

2. The CS/D-Model (Consumer Satisfaction)

An understanding and general framework on consumer satisfaction is based on theoretical and empirical research of the late 1970s and early 1980s, by authors such as Day, LaTour and Peat, and Oliver. Summarised by Woodruff, Cadotte and Jenkins (WCJ) (1983), this research arrives at the paradigm of confirmation/disconfirmation or consumer satisfaction/dissatisfaction (CS/D), viewed as resulting from a type of comparison process between expectations and perceived actual performance. This confirmation/disconfirmation leads to an emotional reaction called satisfaction/dissatisfaction.

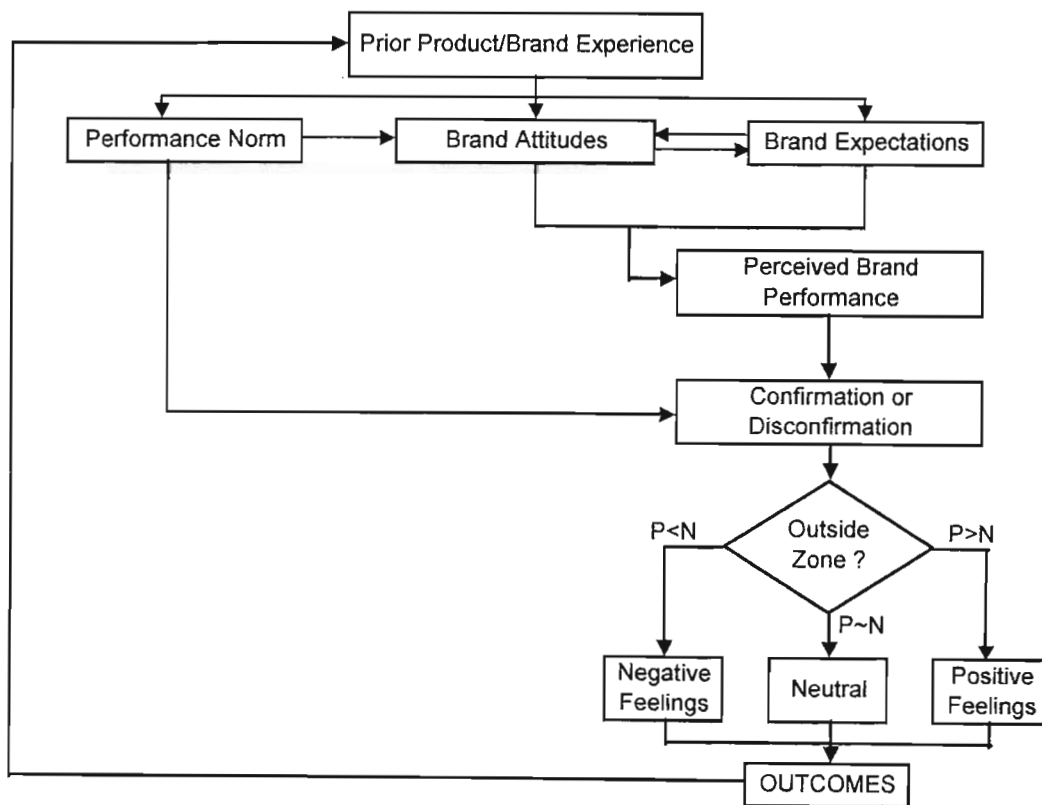


Figure 3 - Experience-Based Norms Model of CS/D - Adapted from Woodruff, R., Cadotte E., and Jenkins R., (1983) p 297

Controversy over key relationships includes works by Miller (1976), who introduced a classification scheme using four different kind of comparisons: expected, deserved, ideal and minimum tolerable performance. His scheme was criticised of mixing expectations with predictions.

Morris (1976) suggested that there were cultural norms which people use to evaluate a product's performance. Satisfaction, he argues, results from the degree to which perceived performance matches the norm. Swan and Mercer (1981) suggest that consumers evaluate the benefit received from a brand in relation to its cost (price and effort) and then compare this ratio with the corresponding cost/benefit ratio realized by some other relevant person (e.g. the seller, a friend, etc.). LaTour and Peat (1979) explain that the comparison level is developed from prior experience with the salient attributes of the brand or of similar brands in a product category. Thus the comparison levels can be influenced by perceived capabilities of brands other than the one purchased and used.

All the above-mentioned literature has a common thread: Satisfaction may not be totally dependent on whether a brand's performance meets or exceeds predicted performance. Standards, in the form of norms, may also have a role. This norm concept is further specified by WCJ (1983). They divide it into two different types of norms: A *brand-based norm* that may be operating when one brand dominates a consumer's set of brand experiences, or a *product-based norm*, when a consumer has had experience with several brands of a product-type within a product class, but no one brand stands out as a desired reference brand. Here the norm for performance might develop from a pooling of experience across the similar brands.

Also the afore-mentioned writings concern the product industry, the confirmation/disconfirmation model operative in a product-based norm can be suggested to also be applicable in the service industry:

Expectations, (the norm for performance) result from a pooling of experiences from different service providers.

WCJ develop this thought further: They state that perceived performance within some interval around a performance norm is likely to be considered equivalent to the norm and call this interval the “zone of indifference”.

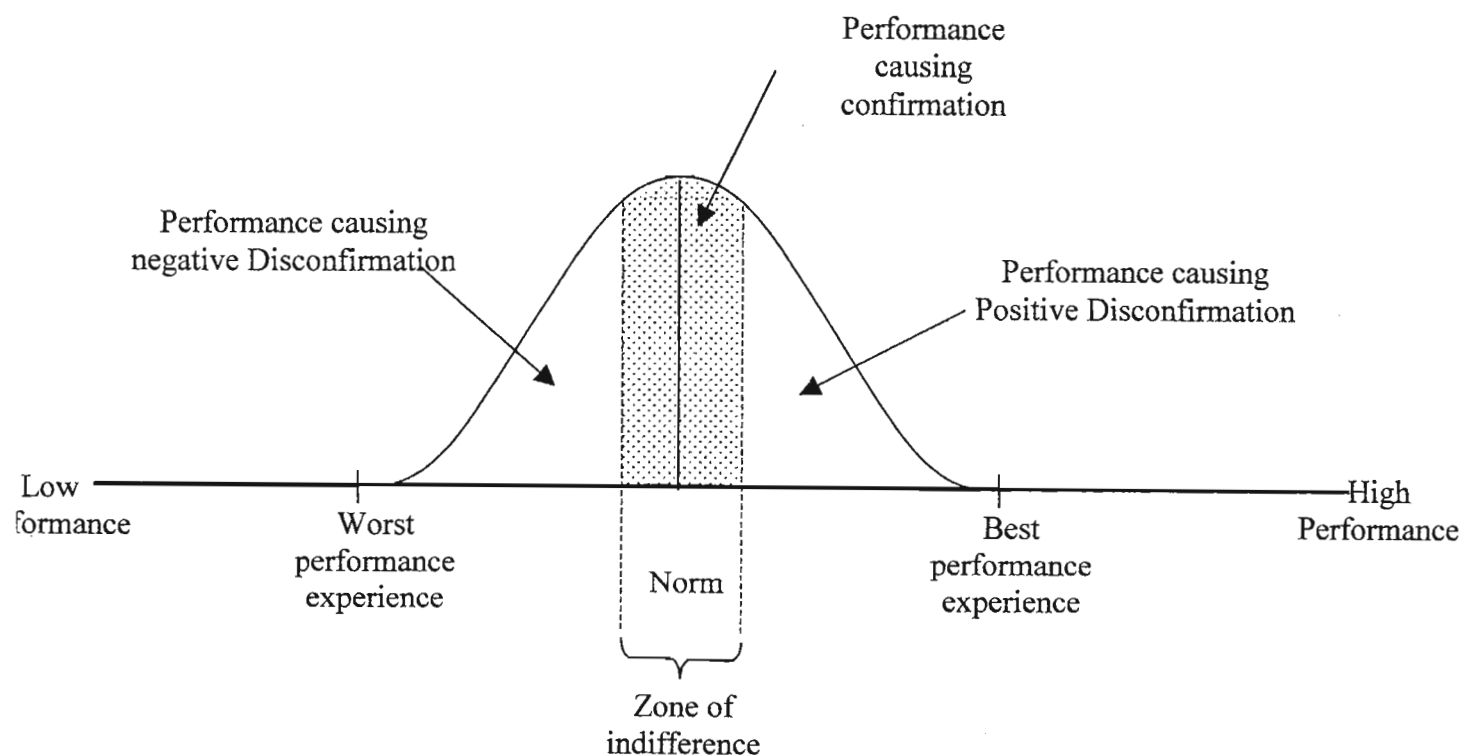


Figure 4 “The relationship between brand unit performance, norm of performance, and confirmation/disconfirmation”. Adapted from Woodruff R., Cadotte E., Jenkins R., (1983), Pg. 300

Perceived brand performance which is above or below the norm, but within the indifference zone, leads to confirmation. Positive or negative disconfirmation results when perceived brand performance is outside the zone, thus differing enough from the norm to be noticed as such.

Four outcomes of the 'zone of indifference concept' are stated by WCJ, which could be mirrored in the service industry:

- A satisfaction outcome may simply be reinforcing the consumer's decision to use that brand (Service provider) again.
- Satisfaction/Dissatisfaction should increase the likelihood of consumer reacting in some way.
- If the number of previous experiences that form the reference distribution is small, even a single unusual occasion may cause a significant adjustment in the performance norm.
- Producers of frequently purchased goods (services) must continually provide more benefits to keep their brands in the forefront of consumer's minds. If companies do not strive constantly for exceptional performance, positive satisfaction with the brand will slowly decay. Consequently, the consumer eventually will have either a neutral or no emotional response to the evaluation of the brand performance

3. *Service quality*

Three well-documented characteristics of services – *intangibility*, *heterogeneity* and *inseparability* – must be acknowledged for a full understanding of service quality

Most services are *intangible*. They cannot be counted, measured, inventoried, tested, nor verified in advance of sale, to assure quality. Because of intangibility, the firm may find it difficult to understand how consumers perceive their services and evaluate service quality (Zeithaml 1981)

Secondly, services, especially those with a high labour content, are *heterogeneous*: their performance often varies from producer to producer, from customer to customer, and from day to day. Consistency of behaviour from service personnel (i.e., uniform quality) is difficult to assure (Booms and Bitner 1981) because what the firm intends to deliver may be entirely different from what the consumer receives.

Thirdly, production and consumption of many services are *inseparable* (Carmen and Langeard 1980, Gronroos 1978, Regan 1963, Upah 1980). In labour intensive services, for example, quality occurs during service delivery, usually in an interaction between the client and the contact person from the service firm (Lethinen and Lehtinen 1982). The service firm may also have less managerial control over quality in services where consumer participation is intense because the client affects the process. In these situations, the consumer's input becomes critical to the quality of service performance.

Based on the examination of writings and other literature on services, Parasuraman, Zeithaml and Berry (1985) (PZB) suggest three underlying themes:

- Service quality is more difficult for the consumer to evaluate than goods quality
- Service quality perceptions result from a comparison of consumer expectations with actual service performance.
- Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery

Lehtinen and Lehtinen (1982) use three quality dimensions:

- Physical quality (e.g. equipment or building)
- Corporate quality (e.g. company's image or profile)
- Interactive quality (e.g. interaction of personnel and customers)

They further differentiate between the quality associated with the process of service delivery and the quality associated with the outcome of the service.

PZB (1985) conducted focus group interviews and executive interviews in four selected service industries from which they derived a service quality model (Figure 5)

Analysis of the executive responses highlighted the fact that a set of key discrepancies or gaps exist regarding executive perceptions of service quality and the tasks associated with service delivery to consumers. These gaps can be major hurdles in attempting to deliver a service which consumers would perceive as being of high quality.

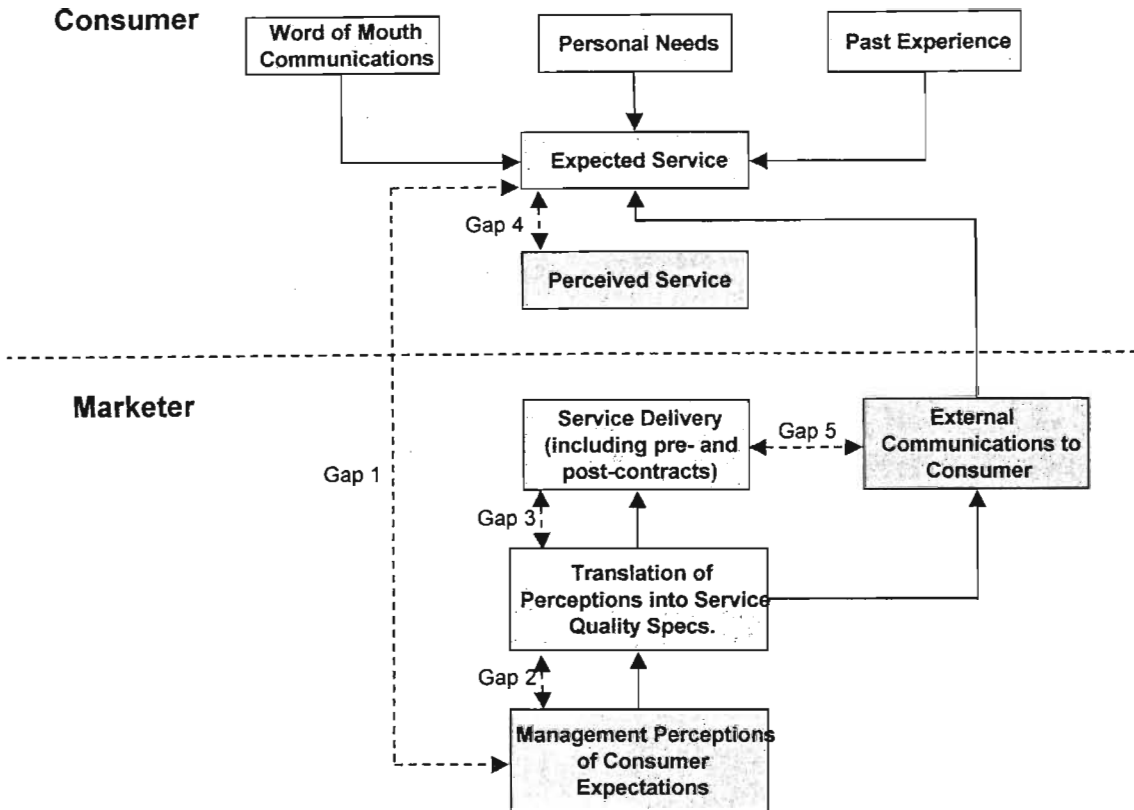


Figure 5 – Service Quality Model - Adapted from Parasuraman, Zeithaml, and Berry, A Conceptual Model of Service Quality and Its Implications for Future Research, Journal of Marketing, Vol.49, (Fall 1985), Pg. 44

- a) Gap 1: Between consumer expectations and management perceptions of those expectations will have an impact on the consumer's evaluation of service quality
- b) Gap 2: Between management perceptions of consumer expectations and the firm's service quality specifications will affect service quality from the consumer's viewpoint
- c) Gap 3: Between service quality specifications and actual service delivery will affect service quality from the consumer's standpoint

- d) Gap 5: Between actual service delivery and external communications about the service will affect service quality from a consumer's standpoint

Summarising the 4 highlighted gaps, PZB propose that the quality that a consumer perceives in a service is a function of the magnitude and direction of the gap between expected service and perceived service (Gap 4). The focus group interviews revealed that consumers used basically similar criteria in evaluating service quality. PZB summarised those criteria into 10 service quality determinants:

1. **Reliability** involves consistency of performance and dependability
2. **Responsiveness** concerns the willingness or readiness of employees to provide service. It involves timeliness of service
3. **Competence** means possession of the required skills and knowledge to perform the service
4. **Access** involves approachability and ease of contact
5. **Courtesy** involves politeness, respect, consideration, and friendliness of contact personnel
6. **Communication** means keeping customers informed in a language they can understand and listening to them.

7. **Credibility** involves trustworthiness, believability, and honesty. It involves having the customer's best interest at heart

8. **Security** is the freedom from danger, risk, or doubt

9. **Understanding/Knowing the customer** involves making the effort to understand the customer's needs.

10. **Tangibles** include the physical evidence of service

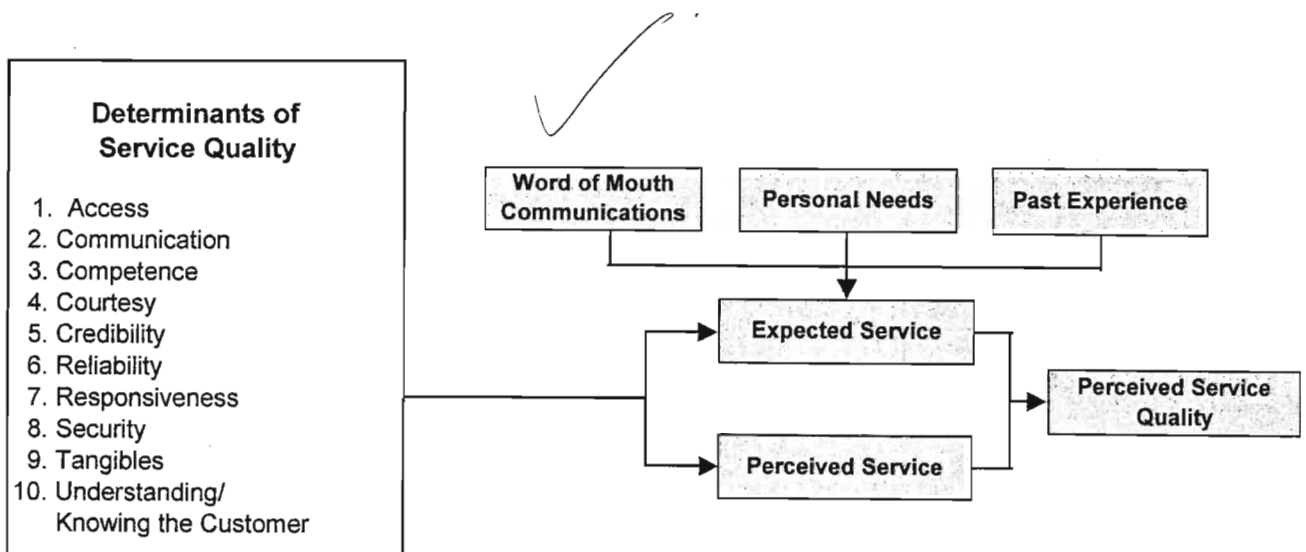


Figure 6 - Determinants of Perceived Service Quality Adapted from Parasuraman, Zeithaml, and Berry, A Conceptual Model of Service Quality and Its Implications for Future Research, Journal of Marketing, Vol.49, (Fall 1985), Pg. 48

The above analysis leads to the question of how to isolate differences in evaluation of quality of services. Darby and Karni (1973) and Nelsons (1974) distinguished between 3 categories of properties:

- a) **Search properties** (Attributes which a consumer can determine prior to purchasing a product)
 - a. *Tangibles*
 - b. *Credibility*

- b) **Experience properties** (Attributes which can only be discerned after purchase or during consumption)
 - a. *Access*
 - b. *Courtesy*
 - c. *Reliability*
 - d. *Responsiveness*
 - e. *Understanding/knowing the customer*
 - f. *Communication*

- c) **Credence properties** (Characteristics which the consumer may find impossible to evaluate even after purchase and consumption)
 - a. *Competence*
 - b. *Security*

As only a few search properties exist with services and because credence properties are too difficult to evaluate, PZB (1985) suggest that *consumers typically rely on experience properties when evaluating service quality*. Based on the above qualitative research study, PZB (1985) concluded that a consumer's perception of service quality depends on the nature of the discrepancy between the expected service and the perceived service.

4. Multistage Model of Service Quality and Value

Bolton and Drew (1991) developed a multistage model of customers' assessments of service quality and value. This model incorporates the initial CS/D model, the 'service quality model' of PZB (1985), and the service value model as per Zeithaml (1988). They argue that a customer's global assessment of a service can be decomposed into a series of interrelated stages:

- The Assessment of
- a) Performance
 - b) Service Quality
 - c) Service Value

The assessment of performance is described as a function of perceptual ratings of attributes/dimension that describe the service and the parameters that depend on the nature of the service. The assessment of Service Quality interrelates in that it is based on the performance assessment, adding prior expectations and perceptions of the discrepancy between the performance and the expectations. The last stage, formed by the Assessment of Service Value, is again based on the perceived service quality, incorporating the monetary and non-monetary costs associated with the customer's utilization of the service and the customer characteristics.

Bolton and Drew (1991) apply this model to residential customer's assessments of the local telephone service, utilising measures similar to SERVQUAL, on a sample of 1,408 residential telephone subscribers in 1985.

In this survey, they find confirmation that a key determinant for service quality is the gap between performance and expectations (i.e. disconfirmation). While prior studies had assumed that performance explains a larger portion of the variance in customer satisfaction, Bolton and Drew find it to be disconfirmation rather than performance.

A last interesting conclusion of their study is that they rebut the assumption that service providers should focus on maximising service quality whilst minimising costs (i.e. price). Their research suggests that service providers must rather offer flexible services that satisfy the different tastes and expectations of each market segment.

5. *SERVQUAL*

In 1988, PZB took their research results one step further and developed a 22-item instrument (named *SERVQUAL*) for assessing “customer perception” of service quality in both, service and retailing organisations. In the process of data collection, scale purification and validity testing, PZB restructured their original 10 determinants of perceived service quality into 5 dimensions (three original and two combined dimensions):

- **Tangibles** (Physical facilities, equipment, and appearance of personnel)

- **Reliability** (Ability to perform the promised service dependably and accurately)

- **Responsiveness** (Willingness to help customers and provide prompt service)

- **Assurance** (Knowledge and courtesy of employees and their ability to inspire trust and confidence)

- **Empathy** (Caring, individualised attention the firm provides its customers)

By measuring the expected (E) and perceived (P) service level with the identical set of questions, PZB arrived at a “difference score” Q (representing perceived quality along that item) defined as

$$Q = P - E.$$

SERVQUAL can be used to assess a given firm’s quality along each of the five service dimensions by averaging the difference scores on the items making up the dimension. Measuring expectations and perception, SERVQUAL is limited to current or past customers of that firm.

In 1990, Carman reports on the replication and testing of the SERVQUAL battery, to address the validity issues. While he found support of the dimensions created by PZB, he highlights, that the approach, customisation, and testing required by any particular user is somewhat more substantial than originally suggested by PZB.

Summary of Perception Dimensions Across Studies				
Original PZB Ten Factors	PZB Revised	Tyre Store	Placement Centre	Dental Clinic
Tangibles	Tangibles	Tangibles	Tangibles	Tangibles
Reliability	Reliability	Reliability	Reliability	Reliability
Responsiveness	Responsiveness	Responsiveness	Responsiveness	
Communication	} Assurance	} Security	Security	Security
Credibility				
Security				
Competence				
Courtesy	} Empathy	Access	Personal Attention	Convenience
Understanding				
Access			Access	Cost

Figure 7 - Summary of Perception Dimensions Across Studies - Adapted from Carman, Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions, Journal of Retailing, Vol 1, No. 1, Spring 1990, Pg. 33

An important part of Carman's work relates to the question of the validity of analysing the differences between expectations and perceptions. His key-argument is that an all respondent's beliefs were entirely ex post. Any response on expectations is influenced by past experiences. Hence these expectation responses can be of little value, unless an administrative way is found to collect the expectation-criteria of a customer prior to the service experience.

Carman brings a third variable into the equation stating that, to most service providers, the importance of a particular service attribute seems more relevant than its expected level. He suggests an extension to PZB's formula by not only measuring the difference between perception and expectation, but by weighing that result by the level of importance that attribute has to the consumer. The concept of quality used here, is that overall quality (Q) is an attitude, a multidimensional construct composed of differences between perception (P) and expectation (E), weighted by the importance (I) of the respective service attribute (i).

Written in a linear compensatory, expectancy value formulation, this becomes

$$Q = \sum I_i (P_i - E_i)$$

More criticism on the initial SERVQUAL model as a generic instrument for the assessment of client satisfaction in the service industry comes from Brown, Churchill and Peter (1993).

Applying the model in the retail industry they found that the five dimensions suggested by PZB did not replicate and that their investigations rather pointed to a one-dimensional construct. Furthermore they come to the conclusion that the reliability of the difference score suggested by PZB was below that of a non-difference score measure of service quality.

PZB (1994) defend their dimensions by reminding the critics, that while they have stated in their previous work that SERVQUAL consist of five distinct dimensions, they also point out that the factors representing those dimension are intercorrelated and hence overlap to some degree.

In 1988, Zeithaml proposed that perceived Service Value is the customer's overall assessment of the utility of a product based on perceptions of what is received and what is given; the trade-off between a customer's evaluation of the benefits of using a service to its related cost.

5.1. Expectations

PZB (1990) note that the SERVQUAL Expectations Measure is intended to measure 'normative expectations.' In a subsequent article they suggest that the SERVQUAL Expectations Concept 'is similar to the ideal standard in the CS/D literature', such as

- a) *Miller's (1977)* 'ideal expectations, defined as the wished-for level of performance'.

- b) *Swan and Trawick's (1980)* 'desired expectations, defined as the level at which the consumer wanted the product to perform'.
- c) *Prakash's (1984)* 'normative expectations, i.e., how a brand should perform for the customer to be completely satisfied'.

Hence, the service expectations concept is intended to measure customer's normative expectations, and these expectations represent an 'ideal standard' of performance.

Teas (1993) highlights the conceptual and operational difficulties of using the performance-minus-expectations approach, with a particular emphasis on expectations. He proposes and empirically tests, two alternative 'perceived service quality'-models: 'Evaluated Performance' and 'Normed Quality'. He concludes that the 'Evaluated Performance Model' outperforms SERVQUAL and the 'Normed Quality Model'. In this model, service quality is measured by the gap between perceived performance and the ideal amount of a feature, rather than the customer's expectations.

Brown, Churchill, and Peter (1993) have questioned the reliability of the difference-score (i.e. perception minus expectation), arguing that the correlation between the components is high and suggest the use of a non-difference score (i.e. performance only) to arrive at more reliable measures. PZB (1993) responded on this critique by drawing on the achieved high reliability scores of the SERVQUAL formulation.

5.2. *Satisfaction and Attitude*

In 1992, Cronin, Steven and Taylor (CST) investigated the conceptualization and measurement of service quality and the relationship between service quality, consumer satisfaction, and purchase intentions. PZB (1988) had differentiated between 'quality' and 'satisfaction', stating that while 'quality' is an enduring, global attitude, 'satisfaction' is related to a specific transaction. CST refer back to Bitner (1990) who had demonstrated empirically a significant causal path between satisfaction and service quality in a structural equation analysis. In a second study, Bolton and Drew (1991) used the common assumption that

Service quality is analogous to an attitude as a basis to suggest that satisfaction is an antecedent of service quality.

They posit that perceived service quality is a function of a consumer's residual perception of the service's quality from the prior period and his or her level of satisfaction/dissatisfaction with the current level of service performance.

Oliver (1980) suggests in his research that service quality and consumer satisfaction are distinct constructs, but are related in that satisfaction mediates the effect of prior-period perceptions of service quality to cause a revised service quality perception to be formed. Satisfaction thus rapidly becomes part of the revised perception of service quality.

Also in this study, service quality is conceptualised as 'similar to an attitude'.

6. *SERVPERF*

Cronin, Stephen, and Taylor (1992) refer back to the “adequacy-importance’ model created by Mazis, Ahtola and Klippel in 1975. This model suggests that an individual’s attitude is defined by his or her importance-weighted evaluation of the performance of the specific dimensions of a product or service (see Cohen, Fishbein, and Ahtola 1972). However, experimental evidences indicat that the performance dimension alone predicts behavioural intentions and behaviour at least as well as the complete model (Mazis, Ahtola, Klippel 1975). Their findings suggest using only performance perceptions as a measure of service quality, i.e.

$$\textit{Service Quality} = (\textit{Performance})$$

$$Q = (P)$$

These findings were supported in later studies by Churchill and Surprenant (1982) and Woodruff, Cadotte and Jenkins (1983), suggesting that including importance weights and expectations only introduces redundancy. The above model is known as SERVPERF.

It has to be noted at this point, that PZB (1994) have responded on the findings of Cronin/Taylor and Teas. With arguments and counter-arguments none of the introduced models is accepted as the one and only correct solution.

7. The “Sixth Gap”

In their conceptual model of service quality PZB (1985) illustrate five discrepancies or gaps regarding executive perceptions of service quality and the tasks associated with service delivery to consumers. In 1995, Taylor and Miyazaki suggest the existence of a sixth gap:

The discrepancy between service delivery (actual service) and service perception (on which consumer evaluations must be based).

Their research concerns services, which are high in credence attributes, and therefore difficult, if not impossible, for consumers to evaluate.

Although conflict and controversy exists concerning the use of the disconfirmation model for service quality measurement, both, SERVPERF and SERVQUAL use service perception (i.e. service performance perception) as the key determinant in assessing service quality. Thus, to make meaningful satisfaction judgments and to enable estimations of quality, one must first be able to make a reasonably accurate evaluation of the service performance in question, that is, the core benefit.

The credence nature of many services create a dilemma for consumer evaluation of these services. When a service is purchased, buyers are presumably in need of, or desire, some ‘core benefit’ in exchange for their funds (e.g. transport of goods from their overseas supplier to South Africa and processing of the customs clearances).

Although other benefits may be both expected and included in the final service package, the core benefit presumably drives the buyer to seek out a service provider.

Peripheral benefits may either be added benefits that carry obvious monetary or convenience value (quality check of goods on pick-up at supplier, costings), or marketer-controlled environmental factors that enhance the pleasure or comfort (or reduce discomfort) associated with the service encounter (friendly and empathetic staff).

Thus, core benefits are those central to the solicitation of the service, and result from the actual performance of the core service. Peripheral service benefits include all other benefits, such as those resulting from the marketer controlled service environment, the manner of delivery of the core service, and buyer-seller interactions.

Before seeking out a service, consumers are assumed to have a need, and therefore, are assumed to have certain expectations as to what they anticipate the service will offer. The important point is to note that some expectation is present concerning the core service benefit. Although this expectation may be limited to only an assumption that the core service will be provided, many consumers are likely to expect, at the very least, a satisfactory level of performance or even a superior level of performance in reference to the particular cost. Some peripheral benefits may be considered in selecting a particular service provider, however they are relatively less important in solving the core need. Fact is that fewer of the peripheral service benefits would presumably be considered in relation to the number that is later evaluated.

After selecting a service provider and making an agreement to purchase the desired core service, actual service delivery takes place. This consists of the delivery of the core service benefit(s) and the peripheral service benefits. However, because of the credence nature of the core service benefit, the consumer is not able to determine (by definition) that the service was performed correctly, and may even be unable to determine if the service was performed at all (e.g. customs examination on import of goods). However, many of the peripheral service benefits would be directly observable (from the attitude of staff to the appearance of the invoice and supporting documentation).

Taylor and Miyazaki (1995) conceptualise, that when consumers are unable to directly evaluate the core service, their pre-encounter expectations are likely to be based on the core service benefit(s), whereas their post-encounter evaluation are likely to be focused on peripheral service benefits.

8. Summary

As can be seen from the aforementioned review of literature, the wheel was not re-invented in assessing customer satisfaction in the service industry. The most discussed model of Parasuraman, Zeithaml, and Berry was basically derived from the CS/D model from the mid 1970's. All gaps highlighted by PZB lead to their proposition that the service quality is a function of the magnitude and direction of the gap between expected service and perceived service. Most of the further arguments revolve around the definition/validity of service expectations. Service perception (i.e. service performance perception) as the key determinant in assessing service quality is accepted by all authors.

The mentioned authors have drawn a line between the product and the service industry, but further differentiation within the service industry is neglected and efforts move into the direction of creating a generic instrument for the measurement of client satisfaction in all service industries. However, it has to be appreciated at this point that most advances in this research are driven by the retailing industry.

This makes the studies of Taylor and Miyazaki interesting, in that they highlight the existence of and the different circumstances for service sectors with high credence qualities. Accepting that these service sectors do not offer as many search criteria for consumers, they highlight the importance of a sixth gap.

Instead of asking if a consumer received what he expected, they reformulate it to the question if the consumer can judge what he received, i.e. the gap between the consumers' subjective assessment of service quality received equals the objective quality of the service delivered (i.e. can the consumer assess delivery of the core service).

In Logistics Management (the service industry concerned with in this research) the credence factors are very high. This last point makes it clear that the widely discussed validity/definition of consumer expectations is rather irrelevant due to the lack of search criteria for the core service (other than price).

With regard to peripheral service benefits, Taylor and Miyazaki (1995) summarise the situation by admitting that consumers may consider some peripheral benefits in selecting a service provider, but "fewer ... would be ... considered ... in relation to the number that are later evaluated". It is hence accepted for this survey that the main measurement must therefore be of the customer's service perception.

Above literature review leaves us with 4 different tested instruments for this measurement:

SERVQUAL Service Quality = (Performance – Expectations)

Weighted SERVQUAL Service Quality = Importance * (Performance –
Expectations)

SERVPERF Service Quality = (Performance)

Weighted SERVPERF Service Quality = Importance * (Performance)

Measurement of the service perception alone however, will have no active impact on strategic decisions at Kuehne & Nagel and would leave nothing but a snapshot.

The high credence nature of Logistics Management makes it very difficult for the client to objectively measure the performance on the core service and they will judge the peripheral service benefits when appraising Kuehne & Nagel as a service provider.

Due to the lack of core expectations, one of the crucial objectives of the Client Satisfaction Audit must be to identify those peripheral services that are most important to clients as these will form the basis for an appraisal of Kuehne & Nagel's performance.

But, even these two points alone, e.g. measurement of service quality and importance-rating on service-items will not deliver sufficient corner-posts for a strategic decision.

In order to improve performance, a benchmarking against competitors in the same industry must be obtained as a third variable (e.g. on an item, that was marked important by the respondent, Kuehne & Nagel obtains a score of 5 out of 7. Isolated, this may look as a sufficient performance. But if the rating of competitors on the same point shows an average score of 6 out of 7, immediate improvement on the side of Kuehne & Nagel would be necessary in order to ensure sustainable competitive advantage.).

Summarised, this survey aims to provide sufficient data to answer the following questions:

- *How important are the respective service-criteria to the client?*

- *How does a client rate Kuehne & Nagel's service quality?*

- *How does the client's rating of Kuehne & Nagel's service level compare to his/her experiences with a competitor?*

Only with this detailed analysis, will the management of Kuehne & Nagel (Pty) Ltd be able to take corrective measures on service flaws as well as emphasise and build on service strengths. By aligning the subjective understanding of service excellence with client expectations, Kuehne & Nagel will be able to gain sustainable competitive advantage in the local market and thus improve the client retention rate on a long-term basis.

The following chapter will explain in detail the research methodology applied.

III. Research Methodology

1. Introduction

The research objective was exploratory. The study utilised a cross-sectional survey design to assess the service-perceptions of present clients of Kuehne & Nagel, South Africa. The independent variables, based on the identical 22-item survey instrument, were (a) the level of importance of the service criteria to the client, (b) the client's performance-perception of these items with regard to Kuehne & Nagel and (c) the client's performance-perception of a previous experience with a competitor of Kuehne & Nagel.

The data collection was effected through self-administered questionnaires as a cross-sectional study, representing a snapshot of one point in time under field conditions. The ex post facto design eliminated any possibilities of manipulating the variables.

The following sections will lead through to a concise breakdown of the sample population; introduce the questionnaire utilised detailed under instrumentation; explain the procedures applied to the survey; and will touch on the means by which the obtained data was analysed.

2. Sample

The survey was conducted as a census at Kuehne & Nagel South Africa, covering active, regular clients. Basis for the list of participants was a National Turnover Report dated 8th August 2002. Prerequisite for an inclusion in the survey were two factors:

- 1) To ensure that only active, regular customers were included, the selection was limited to clients holding account facilities with Kuehne & Nagel, South Africa.
- 2) To ensure recent service experience, only clients showing turnover on their account in the period May – July 2002 were included.

In addition to the above group of active, regular clients, accounts lost in 2002 were also included in the target group. The reason for this inclusion was twofold:

- 1) To alleviate extremely positive ratings of service performance. Longstanding clients may view the questionnaire as a disguised employee appraisal form and would therefore wish to assist the staff with whom they have personal contacts when responding.
- 2) To establish severe service flaws, which caused those companies to end their business relationship with Kuehne & Nagel, South Africa

The list of lost clients was compiled by each Branch Manager of Kuehne & Nagel South Africa. The geography of the final participants reflects as follows:

Region	Questionnaires Sent out	Returned Questionnaires	Rate of Return
Bloemfontein	36	8	22.22%
Cape Town	94	40	42.55%
Durban	79	23	29.11%
East London	21	10	47.62%
Gauteng	324	66	20.37%
Pietermaritzburg	17	6	35.29%
Port Elizabeth	28	10	35.71%
Total	599	163	27.21%

Figure 8 – Number of questionnaires sent out and received back per region

3. Instrumentation

2.1. Reliability

Reliability and internal consistency applying the split-half method of the questionnaire was estimated at

$r = 0.9652$ (Split between even and uneven items)

$r = 0.9724$ (Split between first half and second half of responses)

To control for test length, the Spearman-Brown formula was used as the correction formula, which resulted in corrected reliability estimates of

$r = 0.9823$ (Split between even and uneven items)

$r = 0.9860$ (Split between first half and second half of responses)

This high reliability measure shows that the items are highly interrelated. With this high reliability of the scale, some confidence is given to the observed scores reflecting true levels of customer attitudes.

2.2. Validity & Structure

The instrument utilised in the survey was based on the quality dimensions as defined by Parasuraman, Zeithaml and Berry (1988) in SERVQUAL,

1. Tangibles

Physical facilities, equipment, and appearance of personnel

2. Reliability

Ability to perform the promised service dependably and accurately

3. Responsiveness

Willingness to help customers and provide prompt service

4. Assurance

Knowledge and courtesy of employees and their ability to inspire trust and confidence

5. Empathy

Caring, individualised attention the firm provides its customers

Along these dimensions, the questionnaire was divided into 5 subsets of items, while the individual items for each dimension has been adapted to the special field of Logistics Management.

Appreciating the fact that the special field of Logistics Management is very communication driven, the dimension 'Assurance' is represented by 6 items, two solely focusing on Communication.

Scores on item 21, 'automatic feedback on possible problems/delays' were applied for 2 dimensions. For 'Reliability', focusing on the wording 'automatic' and for 'Responsiveness', focusing on the wording 'feedback'.

1. Tangibles: - Appearance & courtesy of contact personnel?
 - Appearance & courtesy of operations staff & messengers?
 - Appearance & quality of proposals, cost estimates, etc?
 - Appearance & quality of invoices and supporting documents?
 - IT-capabilities of service provider?

2. Reliability: - Perceived sense of urgency at Kuehne & Nagel?
 - Adherence to client's instructions?
 - Quality of service received (i.e. done right the first time)?
 - Automatic feedback on possible problems/delays?

3. Responsiveness: - Prompt return of telephone calls?
 - Invoices and supporting documents received without delay?
 - Prompt response to queries and claims?
 - Automatic feedback on possible problems/delays?

4. Assurance:
- Reputation of service provider in the market?
 - Staff/management easily reachable by telephone?
 - Staff/management always approachable?
 - Does KN have client's best interest at heart?
 - Competence of staff & management?
 - Competitive pricing?
5. Empathy:
- Frequency of visits by KN representatives?
 - Providing individualised service?
 - Understanding of client's business and special requirements?
 - Service and alternatives always explained?

While applying the dimension as per SERVQUAL, the final questionnaire was designed as a weighted SERVPERF, measuring only performance and weighing the result by the importance of the individual item to the respondent.

Without the Importance Factor the result of the study would have had a limited usefulness. While recognising comparative competitive advantages and disadvantages in Service quality to other competitors, the management of Kuehne & Nagel would have had no indication as to which of these items to be important to clients and therefore requiring immediate action. Furthermore, only the inclusion of the importance rating enables the management of Kuehne & Nagel to detect areas that could be developed into a sustainable competitive advantage in the local market place.

All importance and service quality ratings used a standard 7-point Likert-type scale, ranging from Unacceptable/Unimportant (1) to Excellent/Very important (7), with no verbal labels for scale points 2 through 6 as suggested by Parasuraman, Zeithaml, Berry (1988) under SERVQUAL.

The items were not worded into positive or negative statements to avoid error or bias in responses. By stating the items as pure factors, respondents could judge the importance and the performance clearly and uninfluenced. This ensured validity of the research result. Classification questions in the form of multiple choice checklists were used to determine the respondent's experiences of services and branches utilised:

- Branches:
 - Johannesburg Seafreight
 - Johannesburg Airfreight
 - Pretoria
 - Cape Town Seafreight
 - Cape Town Airfreight
 - Port Elizabeth
 - Durban Seafreight
 - Durban Airfreight
 - Pietermaritzburg
 - Bloemfontein
 - East London
 - Richards Bay

- Services:

- Seafreight Import
- Seafreight Clearing
- Seafreight Export
- Airfreight Import
- Airfreight Clearing
- Airfreight Export
- Overland
- Warehousing
- Logistics

4. Procedures

Prior to the ultimate distribution of the questionnaire to all clients of Kuehne & Nagel, a pilot test was conducted with in Durban with 6 local clients. The result of the pilot test showed no weaknesses in design and instrumentation. The final questionnaire was mailed directly by the researcher to all clients of Kuehne & Nagel, South Africa. The business reply envelope (to ensure no cost incurred by the respondent and encourage response) was again addressed directly to the researcher.

The response-rate was maximised twofold: By utilisation of a business reply envelope and by combining a draw with the return of the completed questionnaire. For this draw, Kuehne & Nagel sponsored two domestic Air tickets. A letter accompanying the questionnaire aimed to alleviate biased responses, informing the client of the survey's objectives and the importance of honest responses in order to achieve the maximum improvements in service delivery if this was necessary. The letter was penned on behalf of the Managing Director of Kuehne & Nagel by the researcher, greeting the respondents from both parties.

The questionnaires were sent out on 1st October 2002, with a deadline for responses set for 31st October 2002. Calculating 2 weeks for the postal services, this gave clients 2 weeks to complete the questionnaire.

5. Data Analysis

The raw data were captured into an Excel-spreadsheet, which formed the basis for further analysis. Results were presented on item and on dimension basis. The following steps explained on item-basis also applied for the analysis of the dimension results. The mean of all responses on a specific item was calculated for the individual questionnaires: Importance, Kuehne & Nagel, and Competitor. This allowed for a direct performance comparison.

A frequency count on every item allowed a judgement on the spread of responses. A weighted comparison, i.e. a multiplication of the individual means of an item on Kuehne & Nagel and competitor-rating, with the importance mean of the specific item, allowed a graphical presentation of the perceived performance-gaps between Kuehne & Nagel and the competition. Clustered column charts were utilised to allow visualization of the results.

6. Summary

This chapter gives a detailed breakdown on the chosen sample population, the contents and form of the questionnaire utilised; and the procedures applied for the data collection. Furthermore, the methods for the final data analysis are explained. In the following chapter, the results of the survey will be presented, followed by a discussion of these results, limitations that have to be considered and suggestions on implications for management and future research.

IV. Results

1. Introduction

After extensive elaboration on the research methodology applied in this survey, this chapter simply presents a summary of the results, which will be discussed in Chapter V. As a first step, the items and responses have been sorted into the initial dimensions Tangibles, Reliability, Responsiveness, Assurance and Empathy.

The representation of the results for this dissertation has been limited to the total responses, i.e. reflecting the 'total country'. A separate breakdown into local and divisional results will be made available to the sponsor at a later stage. For every dimension, the results are reflected via clustered column charts in two graphs.

- a. A frequency count for every item on all possible answers, i.e. 1 – 7, to visualise the distribution of responses for the individual items with the dimension.
- b. A comparison of the means for importance-, Kuehne & Nagel- and competitor-rating on every item within the dimension to easily visualise the relative average importance of an item to the respondents, compared to the average performance ratings of Kuehne & Nagel and the competition.

The following sub-sections will lead through the results of the individual dimensions.

2. Results on National Basis

2.1. Tangibles

Definition: Physical facilities, equipment, and appearance of personnel

Items in the survey pertaining to the measurement of Tangibles:

Q2 Appearance & courtesy of contact personnel (i.e. sales, customer service staff and management.

Q3: Appearance & courtesy of operations staff and messengers

Q19: Appearance & quality of proposals, cost estimates, etc. received from the service provider

Q20: Appearance & quality of invoices and supporting documentation

Q22: IT-capabilities of service provider (i.e. track & trace, scanned documents)

Scores: 1 – Unimportant / Unacceptable

7 – Very Important / Excellent

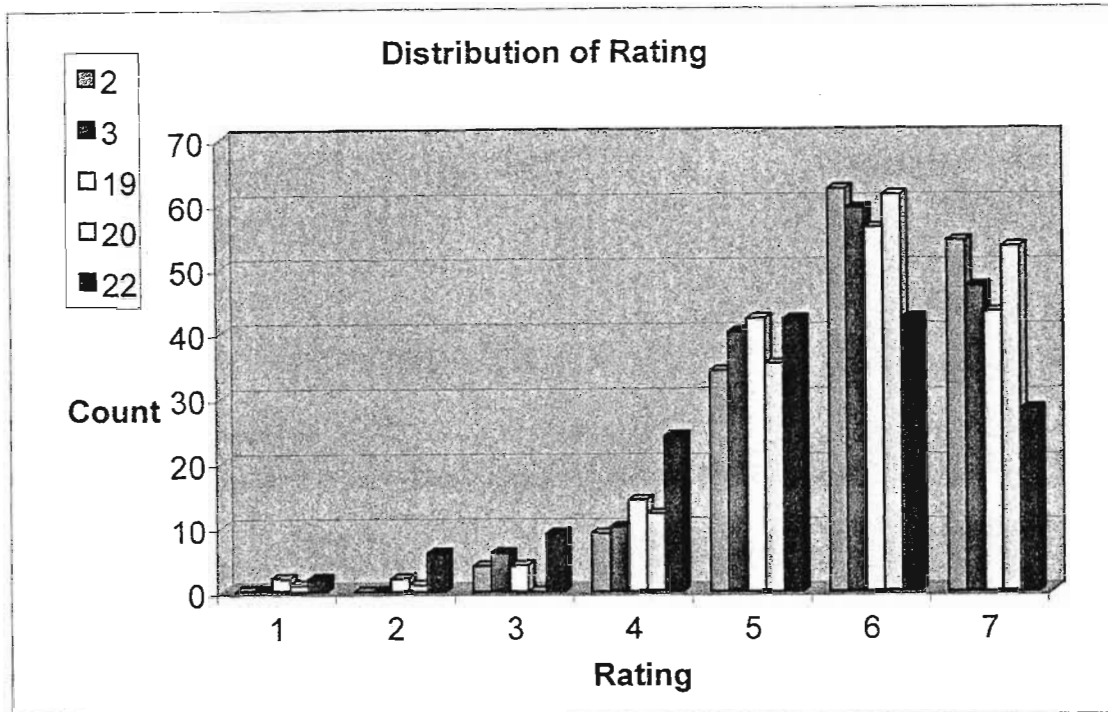


Figure 9: Tangibles - Distribution of ratings on items for Kuehne & Nagel, South Africa

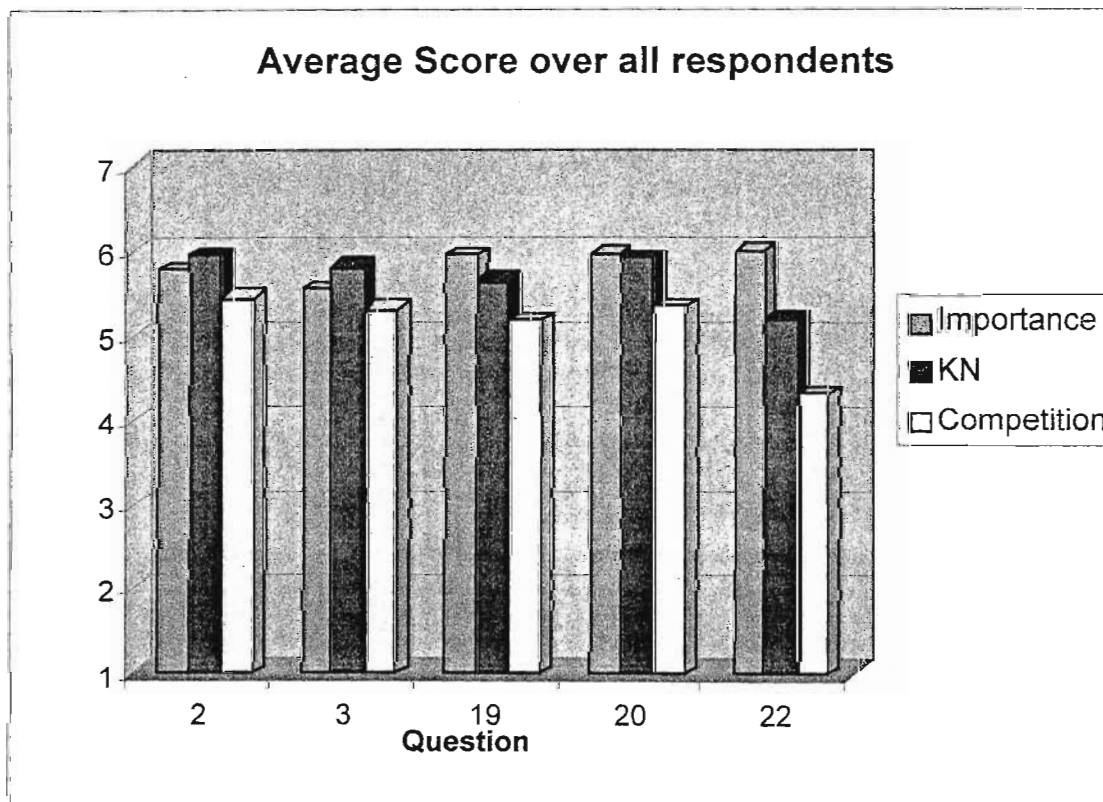


Figure 10 – Tangibles – Average Scores on items for all respondents

On 'Tangibles' as a whole, Kuehne & Nagel is rated very high. On all items, the performance gap between the competitors and Kuehne & Nagel is visible and can be interpreted as a competitive advantage.

Specifically on the appearance and courtesy of contact personnel, operational staff and messengers, (Q2 & 3) the survey reflects a possible over-fulfilment.

An interesting rating can be seen on the point of IT-capabilities (Q22). While KN holds a clear competitive edge over the perceived performance of competitors in this field, the expectations of clients seems still not met which could be due to a of 2 things: a) Kuehne & Nagel is not communicating their IT capabilities properly when selling IT-concepts, or b) the Kuehne & Nagel IT system is unable to meet the client's specification. The distribution of ratings (Figure 7) shows a wide spread of responses, which rather points to a lack of communication over IT-capabilities to all clients.

2.2. *Reliability*

Definition: Ability to perform the promised service dependably and accurately

Items in the survey pertaining to the measurement of Reliability:

Q14: Sense of urgency at service provider?

Q15: Adherence to your instructions?

Q16: Quality of service received (i.e. done right the first time)?

Q21: Automatic feedback on possible problems/delays?

Scores: 1 – Unimportant / Unacceptable

7 – Very Important / Excellent

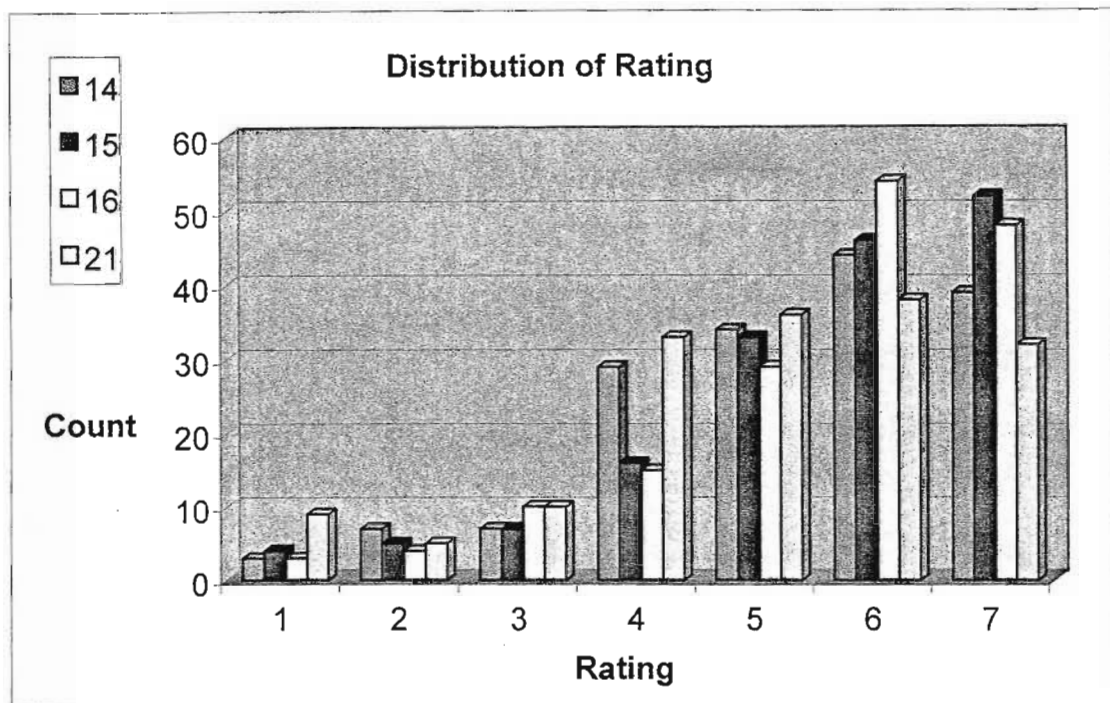


Figure 11 – Reliability - Distribution of ratings on items for Kuehne & Nagel, South Africa

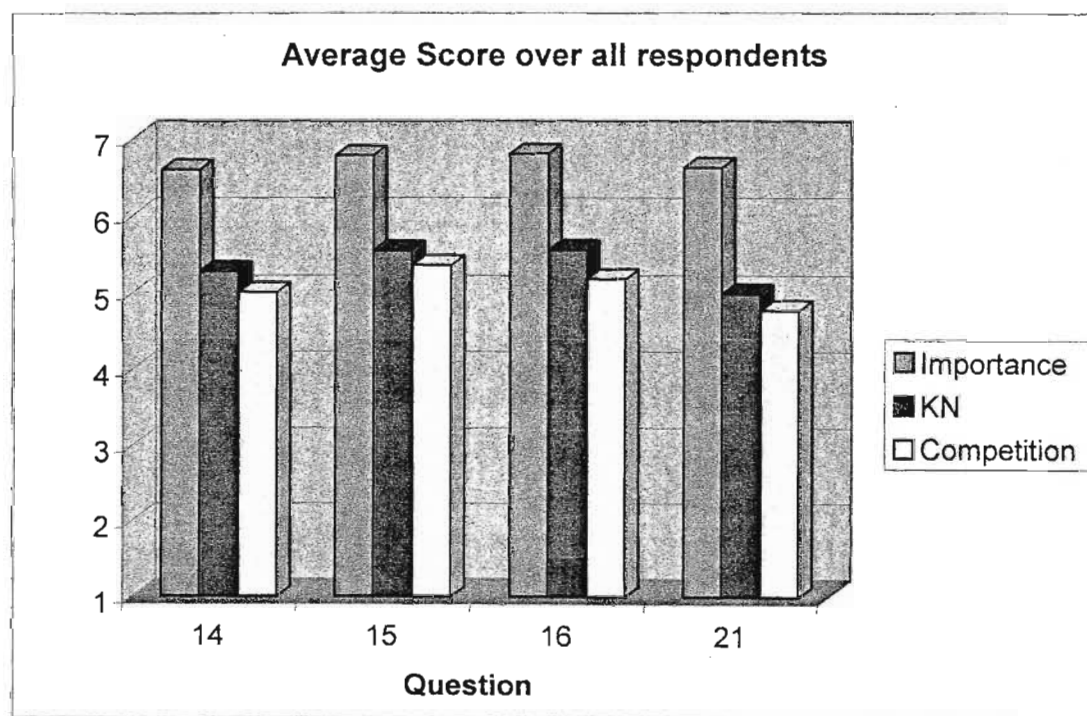


Figure 12 - Reliability– Average Scores on items for all respondents

In the dimension of reliability, the respondents seem to have their highest expectations. Considering the shift of the 'normal'-line from 3 to 5 as suggested later under 'Limitations', one could argue that KN's performance is in the region of 'average'.

While competitors are rated slightly weaker, this point should not be seen as a confirmation, but rather as an opportunity for the creation of a sustainable competitive advantage.

Especially on the point of 'automatic feedback on possible problems or delays (Q21), much of room for improvement is visible.

Similarly the 'sense of urgency' (Q14) shows a wide spread of responses (Figure 9) pointing to varying performance over the individual offices.

2.3. Responsiveness

Definition: Willingness to help customers and provide prompt service

Items in the survey pertaining to the measurement of Reliability:

Q7: Telephone calls are returned promptly?

Q17: Invoices and supporting documentation are received without delay?

Q18: Prompt response to queries and claims?

Q21: Automatic feedback on possible problems/delays?

Scores: 1 – Unimportant / Unacceptable

7 – Very Important / Excellent

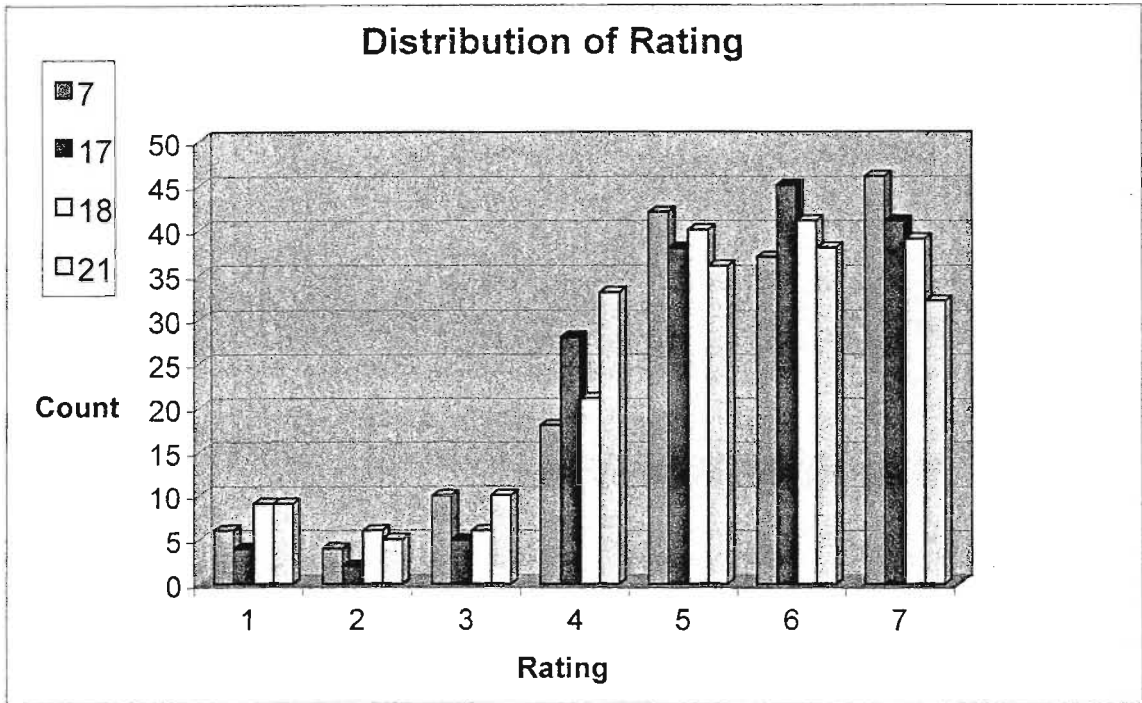


Figure 13 – Responsiveness - Distribution of ratings on items for Kuehne & Nagel, South Africa

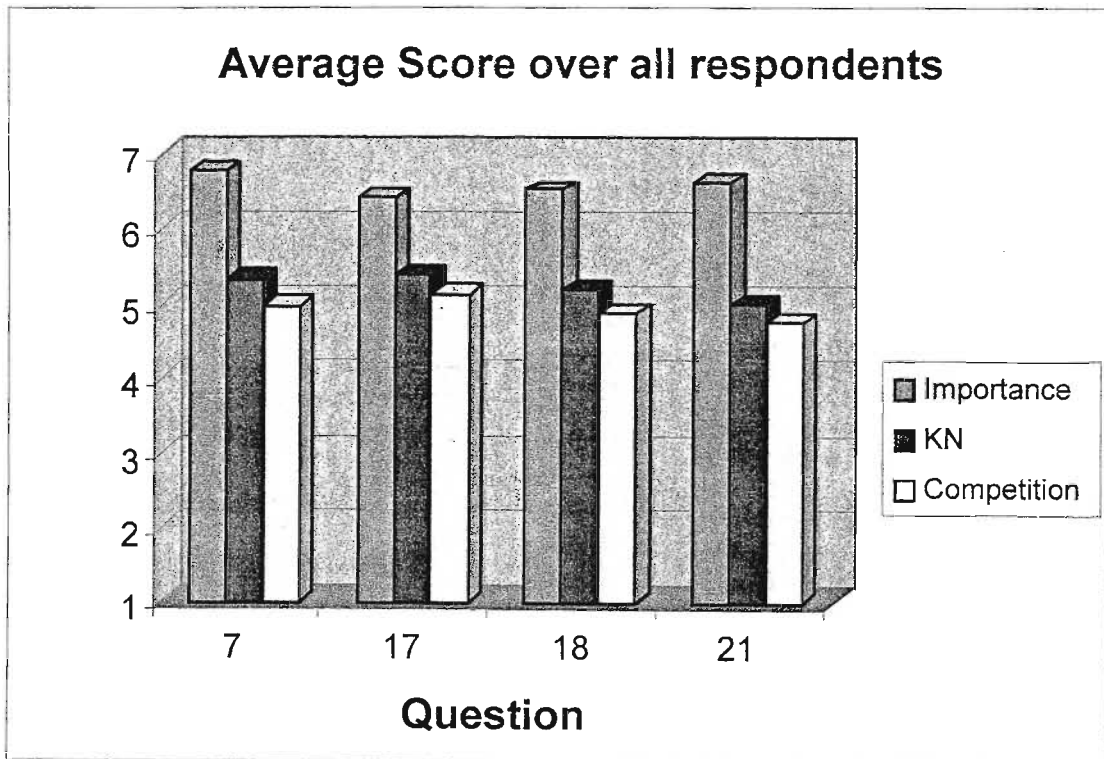


Figure 14 – Responsiveness – Average Scores on items for all respondents

Question 21, which counts for Reliability and Responsiveness has been discussed in the previously under 'Responsiveness'.

Again on 'Responsiveness', respondents seem to have high expectations and the slightly better rating of KN versus competitor firms should be expanded to a clear and sustainable lead.

The spread of replies on the point of 'delivery of invoices without delay' (Q17) shows perceived weaknesses despite the relatively high average score and definitely leaves room for improvement.

2.4. Assurance

Definition: Knowledge and courtesy of employees and their ability to inspire trust and confidence

Items in the survey pertaining to the measurement of Reliability:

Q1: Reputation of service provider on the market?

Q5: Staff & management are easily reachable by telephone?

Q6: Staff & management at the service provider are always approachable?

Q9: Feeling that service provider has your best interest at heart?

Q12: Competence of staff & management?

Q13: Competitive pricing?

Scores: 1 – Unimportant / Unacceptable

7 – Very Important / Excellent

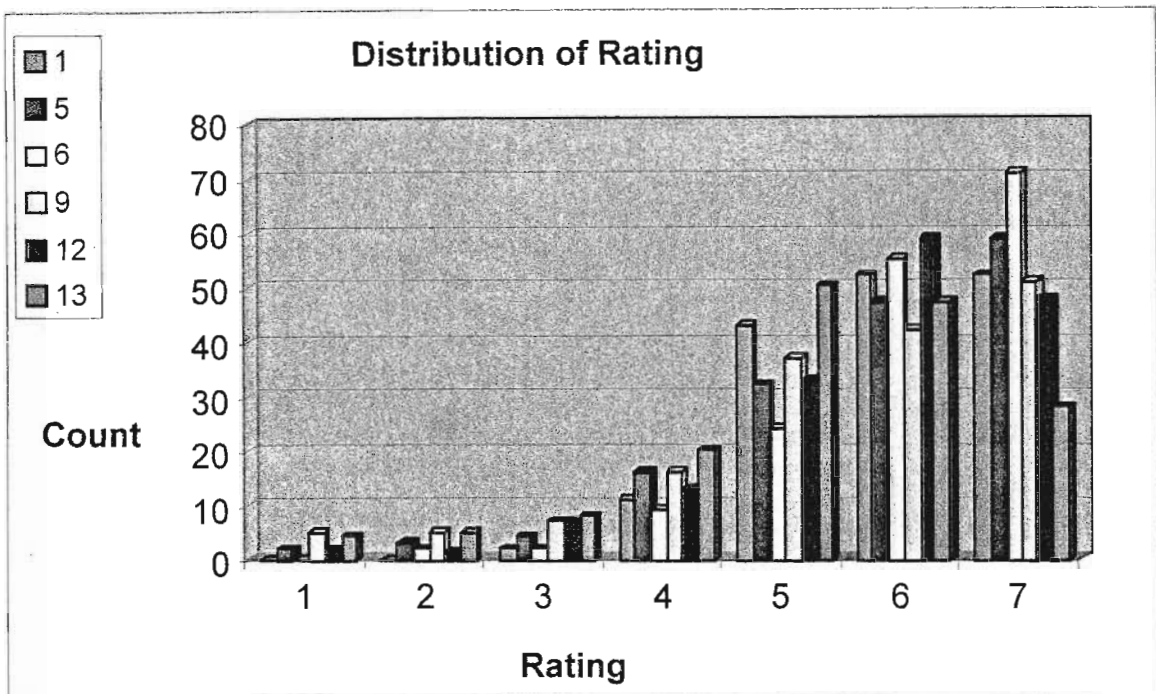


Figure 15 - Assurance - Distribution of ratings on items for Kuehne & Nagel, South Africa

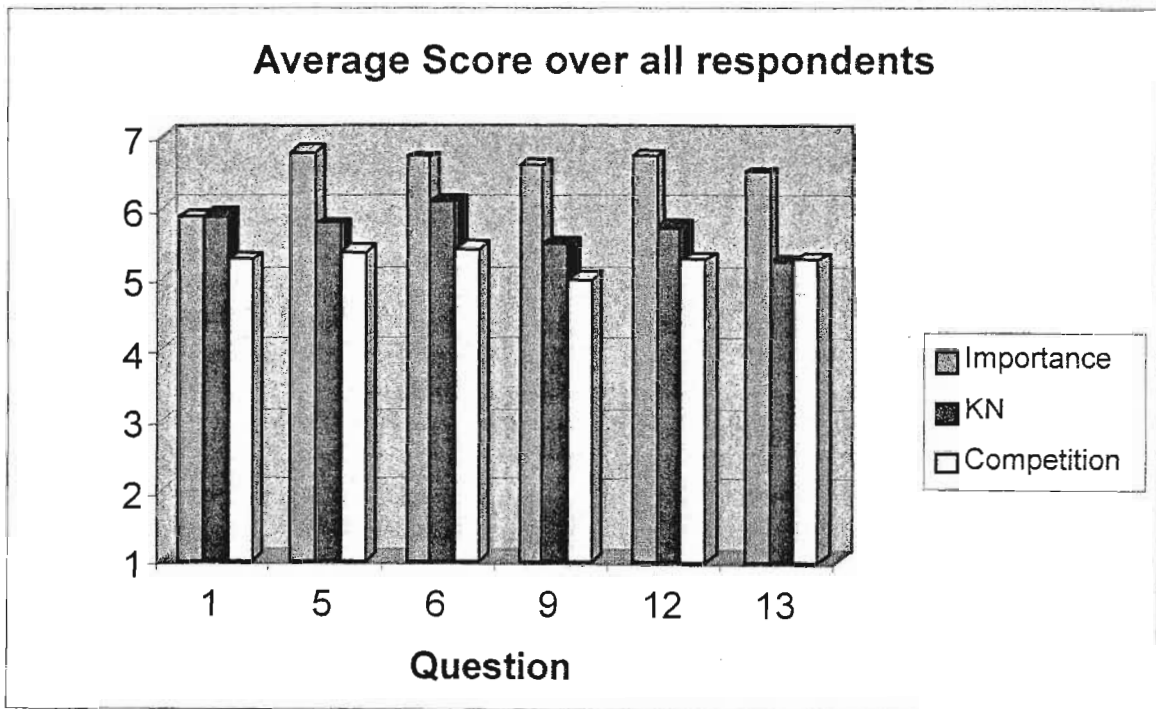


Figure 16 - Assurance – Average Scores on items for all respondents

In the dimension 'Assurance', KN again demonstrates high marks.

The replies on the question whether staff and management are easily reachable by telephone are wide spread and possible performance improvement could be questioned.

On competitive pricing (Q13), the result most likely is distorted by the fact that clients will not admit having the best prices on hand, so as not to lose future bargaining power.

2.5. *Empathy*

Definition: Caring, individualised attention the firm provides its customers

Items in the survey pertaining to the measurement of Reliability:

Q4: Frequency of visits by service provider representatives to your company?

Q8: You receive individualised service?

Q10: Service provider understands your business and your specific requirements?

Q11: Service provided and possible alternatives are always explained?

Scores: 1 – Unimportant / Unacceptable

5 – Very Important / Excellent

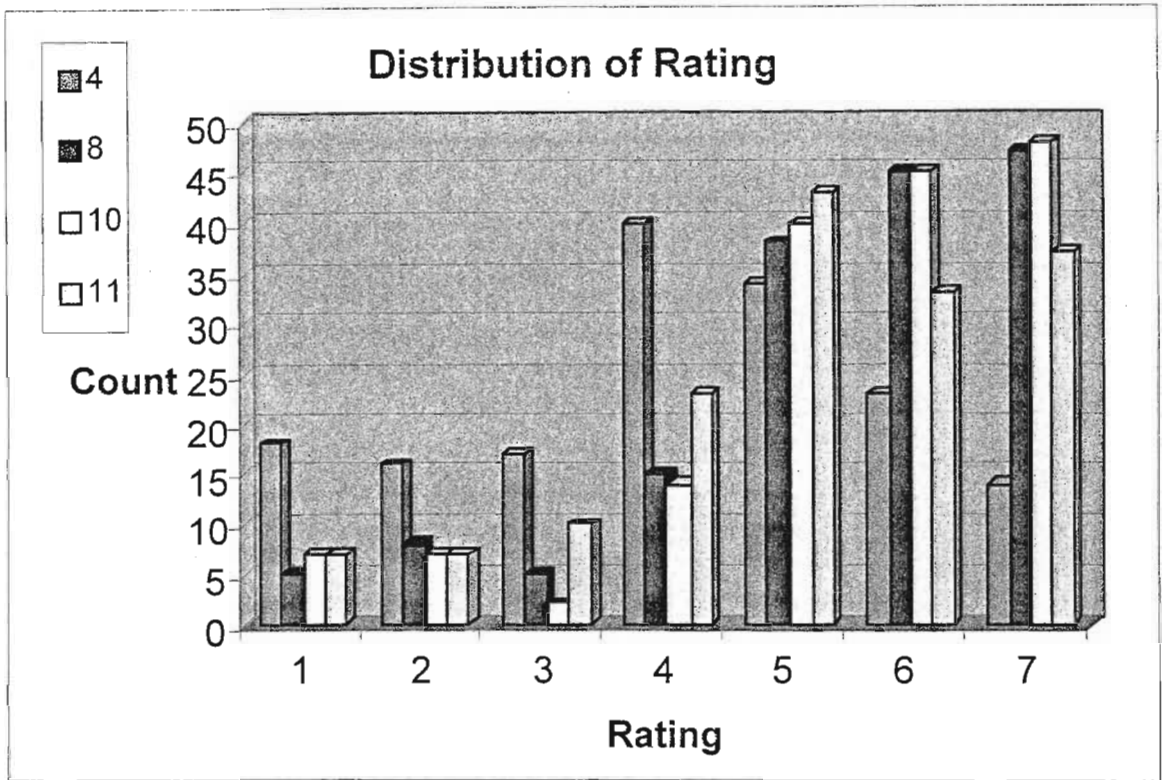


Figure 17 – Empathy - Distribution of ratings on items for Kuehne & Nagel, South Africa

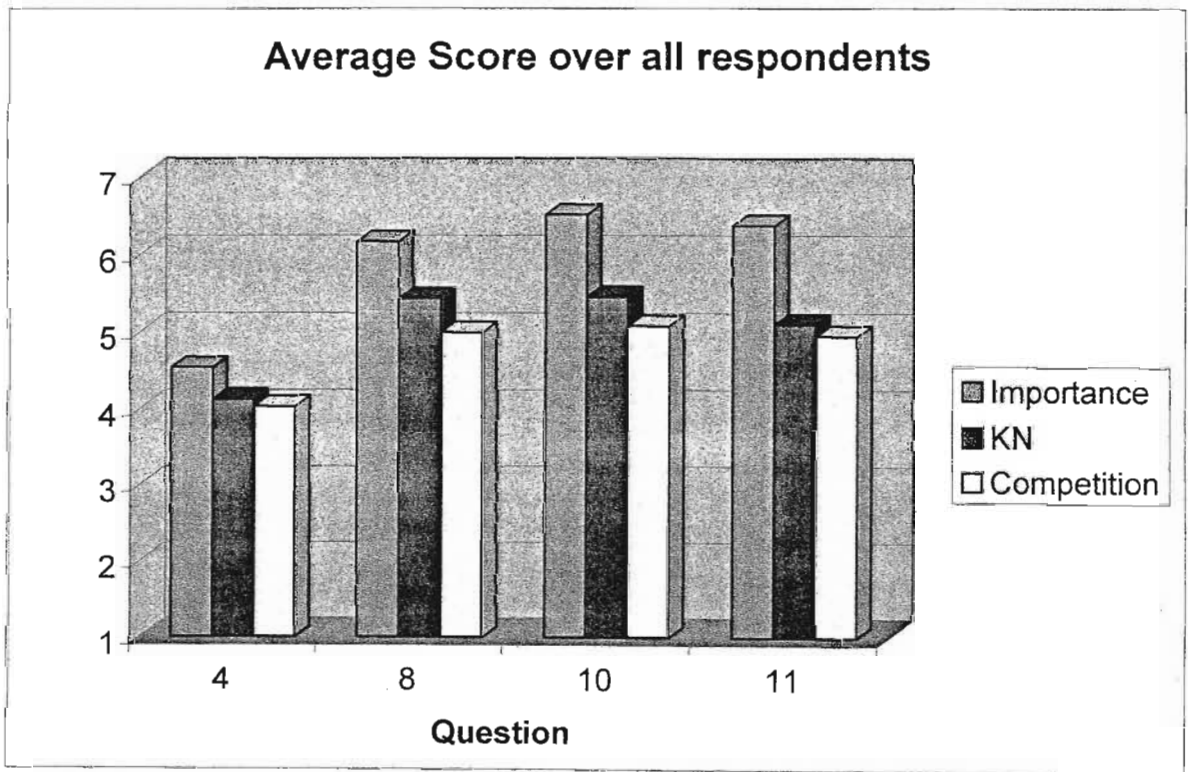


Figure 18- Empathy – Average Scores on items for all respondents

As per the client's rating, KN shows a good amount of empathy. Two improvements however are possible in this area:

While clients on the one hand do not give the highest importance to frequent visits (Q4), the rating for KN's performance is the lowest of all items (Figure 14).

The level of explanation of offered services and possible alternatives (Q11), is rated high in importance by respondents, but shows no significant lead for KN, thereby showing another area inducive to gaining competitive advantage

V. Discussion

1. Introduction

In chapter I of this dissertation, the sponsor has been introduced and with that the industry of logistics management as a specialised service industry with high credence properties. The positioning of logistics within the marketing mix re-emphasised on the crucial role this industry plays within the core competencies of its clients. The theories around client retention has been introduced and it has been made clear that market forces on the logistics industry demand improved client retention rates in order to ensure sustainable success and profitability.

Linking client retention to service performance, Chapter II led through the literature and research on this field. Starting out on the Consumer Satisfaction/Dissatisfaction-model (CS/D) of the late 70's, the Service Quality Model of the mid 80's was introduced, with a sidestep to the Multi-Stage Model on service quality and value, developed in the early 90's. Based on the service quality model, different theories developed. One leading to the SERVQUAL-scale, another theory suggesting the SERVPERF scale and another theory focusing on a '6th gap', which suggests itself for service industries with high credence values.

At the end of the second chapter, it was suggested to conduct a survey in order to measure the perceptions of clients on the service quality received from Kuehne & Nagel. The aim hereof was to arrive at data that allowed for improvements to enhance the client retention rate at Kuehne & Nagel. With that, it was also suggested to measure the importance of service criteria and the rating of competitor's performance as perceived by the clients so as to have a benchmark on hand. The final research questions were introduced as follows:

- *How important is the respective service-criteria to the client?*

- *How does a client rate Kuehne & Nagel's service quality?*

- *How does the client rating of Kuehne & Nagel's service level compare to his/her experiences with a competitor?*

Chapter III explained the research methodology applied, leading through to a concise breakdown of the sample population, introducing the questionnaire utilised, explaining the procedures applied to the survey and touching on the means, by which the obtained data was analysed.

In the last chapter, the results of the survey are presented on a dimensional basis. This chapter revisits the research questions, highlights the limitations of the study, gives recommendations on possible managerial action and finally suggests avenues for further research.

The responses of the individual clients can be found in the Raw Data (Appendix B). A list, identifying the individual respondents has, for confidentiality reasons, not been included in this report. A copy of the index however, has been handed to the Managing Director of Kuehne & Nagel, South Africa.

The Analysis-table, which forms the basis for the presented graphs, is attached in Appendix C. In addition to this, a correlation matrix, based on the averages for the total country, has been included under Appendix D.

2. Limitations

2.1. General

Application of the results of this study is limited to the present clients of Kuehne & Nagel and validity cannot be extended to other firms or even the entire industry.

While the results may represent a trend, it has to be kept in mind that only slightly over 27% of clients responded to the survey, which in itself is a good response rate for a survey in the service industry. Any managerial action based on this survey must keep in mind that the perception of 73% of the clients is not represented with this survey.

2.2. Response Bias

While capturing the raw data it became apparent that the respondents did not utilise the full Likert-scale of 1-7, i.e. benchmarking from a score of '3' as 'normal', but had a tendency to place their marks in the range of 5-7. Only in cases of apparent total dissatisfaction, extreme scores on the '1'-mark were found. The impression therefore is, that for instance a '5'-mark would not as per the scale mean a middle between 'normal' and 'excellent', but rather 'normal'. A shift of the 'normal-point' from 3 to 5 is suggested to alleviate the distortion by the marking behaviour and to highlight differences in expectations and performance ratings.

The markings on the importance scale had an extreme shift to the far right. This may have had various reasons. One of the most likely explanations, is the fact that the questionnaire was sent out in the name of Kuehne & Nagel and clients wanted to demonstrate their high expectations towards their service provider by generally marking most points as 'very important'.

On various questionnaires, it had been found that clients just marked all items on the competitor-sheet on '7'. As this obviously does not reflect an honest rating of a competitor's performance, but again, rather has the objective to keep up performance pressure on Kuehne & Nagel or simply demonstrates an unwillingness to provide comparative ratings, these specific sheets have not been captured, to avoid distortion of the result.

Another behavioural characteristic concerning competitor ratings has been recognised. Many respondents to the survey are the individuals that appointed Kuehne & Nagel as their service provider. A rating of Kuehne & Nagel's performance versus the performance of their previous service provider may have been seen as a re-assurance that they made the right decision and they will have ensured that their final responses reflect a better performance for Kuehne & Nagel than for the previous Logistics Provider, whether this may be true or not.

Out of 163 respondents, 128 clients (78.52%) returned an apparent truthful competitor rating. Only 40 clients mentioned the name of the rated competitor. As this came to a list of 26 competitor firms with only 1-3 ratings per firm, an analysis of the strengths and weaknesses of a specific competitor could not be justified.

Analysis of this data has hence been limited to the overall rating of the competition as a whole and not to the individual competitors.

3. Research Questions

Comparing the means of every quality dimension, the following subsections serve to answer the initial research questions.

3.1. Importance of service criteria to client

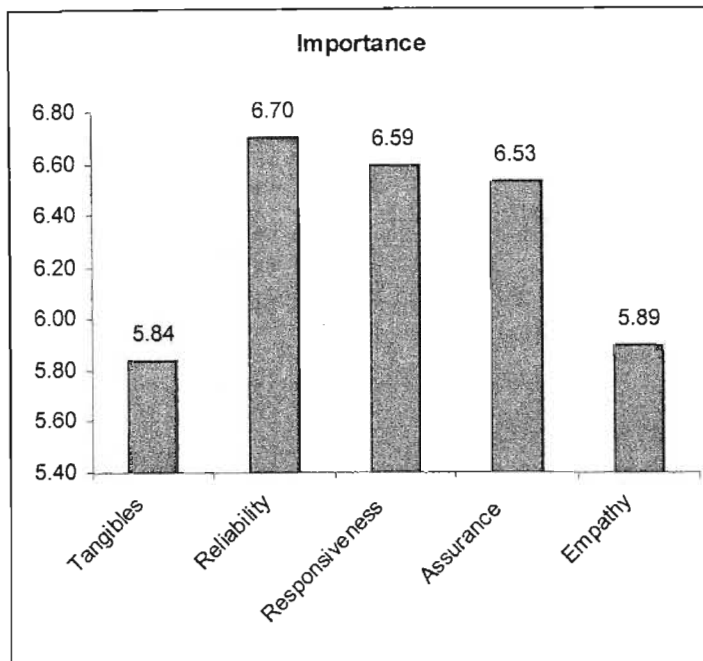


Figure 19 – Importance Means

As reflected in figure 19, clients foremost want *Reliability* from their logistics provider, followed by *Responsiveness* and *Assurance*.

Recalling the position of logistics management in the marketing mix as described in chapter I (Figure 1), this is understandable considering the high vulnerability of the place component by the performance of the logistics service provider.

3.2. Perceived performance of Kuehne & Nagel

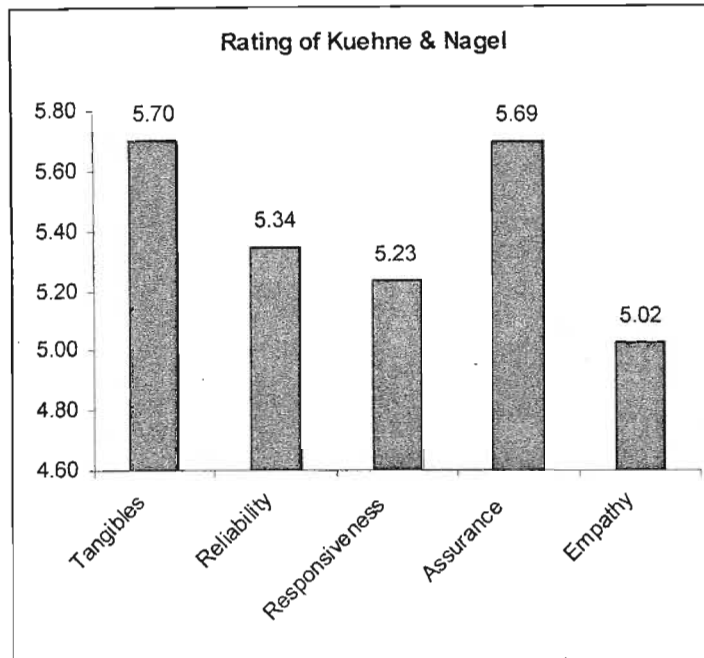


Figure 20 - Kuehne & Nagel rating - Means

Kuehne & Nagel's best service commodities, as perceived by its clients, are the *Tangibles*, followed by *Assurance*, while *Reliability* and *Responsiveness* are seen slightly weaker. This result could be interpreted in three ways:

- A good 'sales and marketing' front to create highly perceived *Tangibles* and *Assurance*, but a 'shop floor' that cannot deliver *Reliability* and *Responsiveness* to the same level, or
- A 'shop floor' that delivers *Reliability* and *Responsiveness* to its best ability, but a 'sales and marketing' front that oversells, or
- A 'shop floor' that delivers good quality, but does not market their performance to be perceived in a better light. For example, clients are phoned when problems arise, but they are not phoned when things go smoothly.

3.3. *Perceived performance of competition*

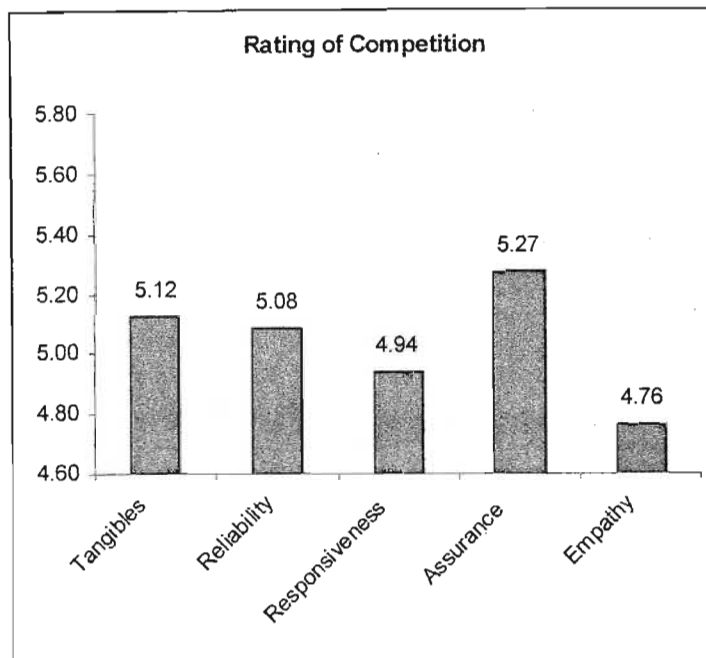


Figure 21 - Competitor Rating – Means

Competitor ratings overall are weaker than the Kuehne & Nagel ratings. Possible reasons for this were highlighted earlier under Limitations. It is interesting to note that the performance on *Tangibles* for the competitors' section is not seen as high as for Kuehne & Nagel, but that the highest rating is achieved under *Assurance*. *Reliability* and *Responsiveness* are similarly lower rated than for Kuehne & Nagel. The performance gap between the individual dimensions however is not as prominent as on the Kuehne & Nagel-rating.

4. Recommendations

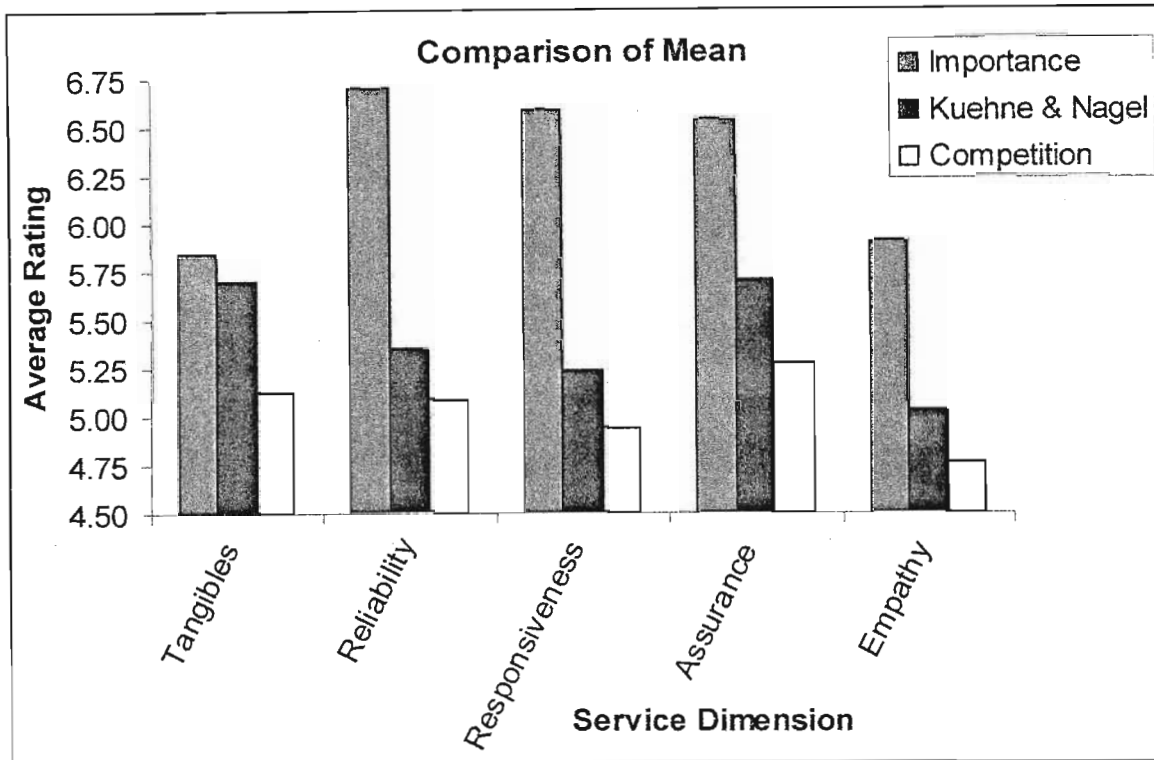


Figure 22 - Comparison of Dimension Means

The survey grants Kuehne & Nagel a high regard on *Tangibles*. This area together with a further improvement in area of *Assurance* can already form a sustainable competitive advantage on which to capitalise.

As elaborated on in the previous paragraphs, *Reliability* and *Responsiveness* seem to be the service dimensions in which clients hold their highest expectations. In both areas, Kuehne & Nagel is only achieving a mediocre score, yet still a higher rating than competitors (Figure 22). It is recommended to concentrate on these two dimensions to strengthen Kuehne & Nagel's market position and to increase client retention rates.

The perceived weakness (or lesser strength) of *Reliability* and *Responsiveness* can be seen twofold. On the one hand, internal investigation should reveal, whether processes, staff-mentality and company culture support a high performance in those areas. On the other hand, the client's perception of *Reliability* and *Responsiveness* may well be easily improved, by first and foremost improving the communication of performance on these two dimensions.

Operations staff tend to limit communication with clients to 'negative scenarios', i.e. client will be made aware of problem-scenarios, not of 'no problem'-scenarios. By examining the items on these two dimensions, the problematic can be highlighted:

- Sense of Urgency at Service Provider
 - Will only be measured in critical situations

- Adherence to your instructions
 - Client will only be aware of failure

- Quality of Service received (i.e. Done right the first time)
 - Client realises when executed incorrectly

- Automatic feedback on possible problems/delays
 - Client is only aware when feedback has not come

- Telephone calls are returned promptly
 - Client remembers calls which were not returned.

- Invoices and supporting documentation are received without delay
 - Client only misses invoices that are delayed

- Prompt response to queries and claims
 - Client has only outstanding queries on his/her desk

- Automatic feedback on possible problems/delays
 - Client is annoyed about feedback that has not come.

All the above points lead to one suggestion: To counter negative service experiences which are remembered as they are out of the norm, measures should be put in place to remind clients of positive service experiences. A possible scenario would be a service desk that follows up on orders handled to enquire with clients immediately after the service experience about their feelings. This would have two benefits for Kuehne & Nagel.

- a) By having ‘the finger on the pulse’, weaknesses in systems and operation would be detected immediately and corrective action could be taken.

- b) Clients that had no negative service experience on the specific order would be brought to the realisation of Kuehne & Nagel’s good performance.

Clients did not put the highest importance-rating on *Empathy*, improvements in this area seem to be possible, considering that in this area, Kuehne & Nagel achieved the lowest overall rating.

An interesting result was achieved on item 4, the frequency of visits by Service Provider Representatives to the client. This item was rated on the lowest importance, however clients also rated Kuehne & Nagel's performance the worst of all items.

In other words, clients do not see the visiting frequency as an import service criterion; however do rate Kuehne & Nagel's performance as unsatisfactory.

Management of Kuehne & Nagel should consider strengthening the customer service departments to allow regular face-to-face-contact with all clients, to improve client's perceptions on this point.

In conclusion it can be said that the overall rating for Kuehne & Nagel was definitely favourable. But instead of enjoying slight leads in the various areas, the management of Kuehne & Nagel should rather try building up the overall lead to achieve a market leadership and with that, a sustainable competitive advantage on the South African market.

5. Suggestions for future Research

5.1. Importance/Expectations

Starting out with the survey, it was thought that the importance rating would be a crucial data to allow a weighted analysis of the result. After having completed the analysis and the reporting of the result, the researcher is inclined to believe in Carman's statement of the value of expectations, considering that expectations are to be seen at the same level as a rating of the importance of service factors, as the level of importance reflects the level of expectation:

..all respondent's beliefs were entirely ex post. Any response on expectations is influenced by past experiences; hence these expectation responses can be of little value, unless an administrative way is found to collect the expectation-criteria of a customer prior to the service experience.

This dilemma, i.e. the need of importance ratings to arrive at weighted results, but the unreliability of these ratings due to the fact that they are post facto or may be answered untruthfully calls for further research. A way must be found to arrive at importance/expectation ratings that truly and reliably reflect the customer's real opinion.

5.2. The 6th Gap

The link between actual and perceived service levels is critical for services that are high in credence qualities. But this is also the link that is weak and has received limited attention in the marketing and consumer behaviour literature: Because of the credence nature of the core service benefit, the consumer is not able to determine (by definition) that the core-service was performed correctly, but would focus his judgment on the observable peripheral service benefits (e.g. friendly service, professional letterhead, etc.)

As highlighted by Taylor and Miyazaki (1995), the significance of this marketplace phenomenon is highlighted when one considers the impact of the growing service sector, and the increasing managerial focus on customer service elements of the product offering.

Future research into the “6th gap” could lead to the generation of a separate testing battery outside SERVQUAL or SERVPERF, to focus on services with high credence properties.

To make meaningful, satisfactory judgements and tenable estimations of quality, one must first be able to make reasonable accurate evaluation of the service performance in question, that is, the core benefit.

More research is suggested into the development of a measuring scale to cover service industries that are high in credence values.

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VII. Appendices

- A. Questionnaire
- B. Raw Data
- C. Analysis of Data
- D. Correlation Matrix
- E. Regional Results
- F. Divisional Results - Seafreight
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- H. Results Johannesburg Seafreight
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- K. Results Cape Town Airfreight
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- M. Results Durban Airfreight
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- O. Results East London
- P. Results Bloemfontein
- Q. Results Pietermaritzburg
- R. Index to Dimensions and Questions

APPENDIX A - QUESTIONNAIRE



Dear Client,

We want to know how we are doing! *Help us to better help you* and stand the chance to

WIN "2 Domestic Return Airline Tickets".

All we need are 5 minutes of your time. 5 honest minutes to tell us what is important to you and how you rate the service you receive from **Kuehne & Nagel**.

You have 22 identical questions on all 3 pages:

- 1st Answer how important or unimportant these points actually are to you in your daily work.
- 2nd How does Kuehne and Nagel perform on all 22 points?
- 3rd How does/did another service provider you experienced perform on these same criteria?

We need your valued input to ensure that our services are designed around your requirements.

Thank you in advance for your participation in our Customer Survey.

Kuehne & Nagel (Pty) Ltd
Hylton Gray
Managing Director

Kuehne & Nagel (Pty) Ltd
Jens Opara
Researcher

General Information

Name of your company (optional) _____

Please indicate with which of the Kuehne & Nagel branches you deal with on a regular basis (multiple answers possible)

- | | | | |
|--|---|--|---------------------------------------|
| <input type="checkbox"/> Johannesburg Seafreight | <input type="checkbox"/> Cape Town Seafreight | <input type="checkbox"/> Durban Seafreight | <input type="checkbox"/> Bloemfontein |
| <input type="checkbox"/> Johannesburg Airfreight | <input type="checkbox"/> Cape Town Airfreight | <input type="checkbox"/> Durban Airfreight | <input type="checkbox"/> East London |
| <input type="checkbox"/> Pretoria | <input type="checkbox"/> Port Elizabeth | <input type="checkbox"/> Pietermaritzburg | <input type="checkbox"/> Richardsbay |

Please indicate which services of Kuehne & Nagel you utilise (multiple answers possible)

- | | | |
|--|--|---|
| <input type="checkbox"/> Seafreight Import | <input type="checkbox"/> Airfreight Import | <input type="checkbox"/> Overland Transport |
| <input type="checkbox"/> Seafreight Clearances | <input type="checkbox"/> Airfreight Clearances | <input type="checkbox"/> Warehousing |
| <input type="checkbox"/> Seafreight Export | <input type="checkbox"/> Airfreight Export | <input type="checkbox"/> Logistics |

Your Winning Ticket

All respondents who have returned the 4 completed pages of our questionnaire *before 31st October 2002* will automatically enter the draw for 2 Domestic Return Airline Tickets (Courtesy of Kuehne & Nagel (Pty) Ltd).

Your name: _____

How can we contact you? (Please supply E-Mail or Telephone): _____

Rules: 1. To be eligible for the draw, all 4 pages of the questionnaire have to be completed 2. The closing date for the draw is 31 October 2002 3. The winner will be notified by telephone or e-mail by 14 November 2002 4. The prize is not redeemable for cash and not transferable 5. The prize must be taken before 31 March 2003

Please complete and return

APPENDIX A - QUESTIONNAIRE

QUESTION: (1) WHAT IS IMPORTANT TO YOU?

We have listed 22 service factors and would like to know how important these factors are for you and your company. On a scale from 1 - 7, please **CIRCLE** the appropriate grade of importance for **YOU** on each item.

Please understand that this page is not about Kuehne & Nagel, but about telling us how important or irrelevant these particular points/questions are to you when choosing/working with a Freight Forwarder/Clearing Agent.

	Not Important					Very Important	
EXAMPLE Importance of customers feedback on questionnaire	1	2	3	4	5	6	7
Reputation Of Service Provider On The Market	1	2	3	4	5	6	7
Appearance & Courtesy Of Contact Personnel (I.e. Sales & Customer Service Staff And Management)	1	2	3	4	5	6	7
Appearance & Courtesy Of Operations Staff And Messengers	1	2	3	4	5	6	7
Frequency Of Visits By Service Provider Representatives To Your Company	1	2	3	4	5	6	7
Staff & Management Are Easily Reachable By Telephone	1	2	3	4	5	6	7
Staff & Management At The Service Provider Are Always Approachable	1	2	3	4	5	6	7
Telephone Calls Are Returned Promptly	1	2	3	4	5	6	7
You Receive Individualised Service	1	2	3	4	5	6	7
Feeling That Service Provider Has Your Best Interest At Heart	1	2	3	4	5	6	7
Service Provider Understands Your Business And Your Specific Requirements	1	2	3	4	5	6	7
Service Provided And Possible Alternatives Are Always Explained	1	2	3	4	5	6	7
Competence Of Staff & Management	1	2	3	4	5	6	7
Competitive Pricing	1	2	3	4	5	6	7
Sense Of Urgency At Service Provider	1	2	3	4	5	6	7
Adherence To Your Instructions	1	2	3	4	5	6	7
Quality Of Service Received, (I.e. Done Right The First Time?)	1	2	3	4	5	6	7
Invoices And Supporting Documentation Are Received Without Delay	1	2	3	4	5	6	7
Prompt Response To Queries And Claims	1	2	3	4	5	6	7
Appearance & Quality Of Proposals, Cost Estimates, etc. Received From The Service Provider	1	2	3	4	5	6	7
Appearance & Quality Of Invoices And Supporting Documentation	1	2	3	4	5	6	7
Automatic Feedback On Possible Problems/Delays	1	2	3	4	5	6	7
IT-capabilities of Service Provider (I.e. Track & Trace, Scanned docs)	1	2	3	4	5	6	7

Please complete and return

APPENDIX A - QUESTIONNAIRE

QUESTION: (2) How do you rate Kuehne & Nagel's performance on these 22 points?

Now that you have told us how important or unimportant these points/questions are to you & your company, we would like your input on how you would rate Kuehne & Nagel on each point/question. On a scale from 1 - 7, please CIRCLE the grade of Kuehne & Nagel's performance as perceived by YOU .

	Unaccept- able							Excellent
EXAMPLE : Response rate on questionnaire	1	2	3	4	5	6	7	
Reputation Of Service Provider On The Market	1	2	3	4	5	6	7	
Appearance & Courtesy Of Contact Personnel (I.e. Sales & Customer Service Staff And Management)	1	2	3	4	5	6	7	
Appearance & Courtesy Of Operations Staff And Messengers	1	2	3	4	5	6	7	
Frequency Of Visits By Service Provider Representatives To Your Company	1	2	3	4	5	6	7	
Staff & Management Are Easily Reachable By Telephone	1	2	3	4	5	6	7	
Staff & Management At The Service Provider Are Always Approachable	1	2	3	4	5	6	7	
Telephone Calls Are Returned Promptly	1	2	3	4	5	6	7	
You Receive Individualised Service	1	2	3	4	5	6	7	
Feeling That Service Provider Has Your Best Interest At Heart	1	2	3	4	5	6	7	
Service Provider Understands Your Business And Your Specific Requirements	1	2	3	4	5	6	7	
Service Provided And Possible Alternatives Are Always Explained	1	2	3	4	5	6	7	
Competence Of Staff & Management	1	2	3	4	5	6	7	
Competitive Pricing	1	2	3	4	5	6	7	
Sense Of Urgency At Service Provider	1	2	3	4	5	6	7	
Adherence To Your Instructions	1	2	3	4	5	6	7	
Quality Of Service Received, (I.e. Done Right The First Time?)	1	2	3	4	5	6	7	
Invoices And Supporting Documentation Are Received Without Delay	1	2	3	4	5	6	7	
Prompt Response To Queries And Claims	1	2	3	4	5	6	7	
Appearance & Quality Of Proposals, Cost Estimates, etc. Received From The Service Provider	1	2	3	4	5	6	7	
Appearance & Quality Of Invoices And Supporting Documentation	1	2	3	4	5	6	7	
Automatic Feedback On Possible Problems/Delays	1	2	3	4	5	6	7	
T-capabilities of Service Provider (I.e. Track & Trace, Scanned docs)	1	2	3	4	5	6	7	

Please complete and return

APPENDIX A - QUESTIONNAIRE

QUESTION: (3) How do you rate another service provider on these 22 points?

Finally we would like to know about your experiences with another Freight Forwarder/Clearing Agent. On a scale from 1 - 7, please **CIRCLE** the grade of performance from this Service Provider as **YOU** have perceived it.

Name of that service provider

	Unaccept-able						Excellent
EXAMPLE : Response rate on questionnaire	1	2	3	4	5	6	7
Reputation Of Service Provider On The Market	1	2	3	4	5	6	7
Appearance & Courtesy Of Contact Personnel (I.e. Sales & Customer Service Staff And Management)	1	2	3	4	5	6	7
Appearance & Courtesy Of Operations Staff And Messengers	1	2	3	4	5	6	7
Frequency Of Visits By Service Provider Representatives To Your Company	1	2	3	4	5	6	7
Staff & Management Are Easily Reachable By Telephone	1	2	3	4	5	6	7
Staff & Management At The Service Provider Are Always Approachable	1	2	3	4	5	6	7
Telephone Calls Are Returned Promptly	1	2	3	4	5	6	7
You Receive Individualised Service	1	2	3	4	5	6	7
Feeling That Service Provider Has Your Best Interest At Heart	1	2	3	4	5	6	7
Service Provider Understands Your Business And Your Specific Requirements	1	2	3	4	5	6	7
Service Provided And Possible Alternatives Are Always Explained	1	2	3	4	5	6	7
Competence Of Staff & Management	1	2	3	4	5	6	7
Competitive Pricing	1	2	3	4	5	6	7
Sense Of Urgency At Service Provider	1	2	3	4	5	6	7
Adherence To Your Instructions	1	2	3	4	5	6	7
Quality Of Service Received, (I.e. Done Right The First Time?)	1	2	3	4	5	6	7
Invoices And Supporting Documentation Are Received Without Delay	1	2	3	4	5	6	7
Prompt Response To Queries And Claims	1	2	3	4	5	6	7
Appearance & Quality Of Proposals, Cost Estimates, etc. Received From The Service Provider	1	2	3	4	5	6	7
Appearance & Quality Of Invoices And Supporting Documentation	1	2	3	4	5	6	7
Automatic Feedback On Possible Problems/Delays	1	2	3	4	5	6	7
Capabilities of Service Provider (I.e. Track & Trace, Scanned docs)	1	2	3	4	5	6	7

Please complete and return

APPENDIX B - Raw Data

Count	Kuehne & Nagel																						Competitor																									
	168	171	170	170	171	171	171	171	171	171	168	171	170	171	171	171	170	171	171	171	161	53																										
Mean	6.56	6.63	6.51	4.90	6.47	6.80	6.08	6.18	6.23	6.21	5.87	6.47	6.01	6.07	6.33	6.35	6.21	6.01	6.45	6.70	5.83	6.02	5.29	5.45	5.30	4.02	5.38	5.43	4.97	4.99	4.99	5.08	4.95	5.26	5.28	5.01	5.36	5.18	5.13	4.88	5.18	5.35	4.77	4.32				
Median	6.00	6.00	6.00	4.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	5.00	6.00	6.00	6.00	5.00	6.00	6.00	5.00	5.00	5.00	6.00	5.00	4.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00				
Mode	7.00	6.00	6.00	4.00	7.00	7.00	7.00	7.00	7.00	7.00	5.00	6.00	5.00	6.00	7.00	6.00	6.00	6.00	6.00	5.00	5.00	6.00	6.00	6.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00	5.00	4.00					
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Name of competitor																									
71	7	7	6	4	7	7	7	7	7	7	7	6	7	7	7	7	6	7	7	7	7		7	6	6	3	7	6	6	4	6	5	5	6	6	6	5	6	6	6	6	6	6	6	6			
72	6	6	6	1	7	7	5	6	6	6	6	6	4	6	6	6	3	4	4	6	4	4		6	4	4	1	5	5	4	4	5	4	4	4	4	7	5	5	5	4	4	4	4	4	4		
73	6	6	6	4	5	7	5	5	6	7	5	6	5	6	4	6	4	5	5	6	4	4	Danzas AEI	6	5	5	5	5	6	6	6	5	5	6	6	5	6	6	5	6	6	4	4	5	6	4	4	
74	5	5	4	4	7	7	5	7	5	6	6	6	1	4	6	6	4	6	5	7	7	5	Rhode & Liesenfeld	3	1	1	1	6	5	6	1	4	4	6	6	7	6	5	6	7	5	7	5	7	5	7	4	
75	7	7	7	5	6	7	7	7	7	7	6	6	7	7	6	2	6	6	2	5	6	6		5	6	6	1	6	6	6	5	6	6	6	5	4	4	6	6	5	6	4	5	3	3	4		
76	6	5		1	5	5	6	5	5	4	4	5	5	5	4	5	4	5	6	6	4	5		6	6	6	5	5	6	5	6	5	5	4	6	5	5	5	6	6	5	6	6	6	6	6	6	
77	6	7	6	5	6	7	6	6	6	6	6	6	7	5	6	6	6	6	6	6	6	6		5	6	6	3	6	6	6	6	5	6	6	5	6	5	6	6	6	6	5	6	6	6	6	6	
78	7	7	7	1	3	7	7	6	7	6	5	7	7	5	7	7	7	7	7	7	7	5		7	4	4	1	7	7	7	7	7	7	7	7	7	7	7	4	6	7	7	2	3	7	7	2	
79	6	6	6	4	6	6	5	6	6	7	5	6	6	7	6	6	5	5	5	5	6	5																										
80	6	6	6	3	6	6	6	6	7	7	7	7	5	5	7	6	5	6	6	6	7	4	JAS Forwarding	6	7	7	7	6	6	6	7	6	7	6	5	7	6	6	6	7	7	6	6	7	6	6	7	7
81	6	7	6	5	7	7	7	7	7	7	6	7	6	7	7	7	6	6	6	6	6	6		4	5	5	3	5	6	4	3	3	5	5	4	5	3	4	5	2	3	2	4	3	3	3		
82	6	7	7	7	7	7	7	7	7	6	7	7	6	7	7	7	6	6	6	6	7	7		4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
83	7	6	6	3	7	7	7	7	7	7	7	7	7	7	7	5	4	7	7	7	7	7		6	4	1	1	5	5	2	1	1	3	1	3	3	1	2	1	1	1	2	2	1	4	4	4	
84	7	7	7	7	7	6	7	7	7	6	6	6	7	7	7	7	7	7	7	7	7	7																										
85	7	6	6	5	7	7	6	7	6	6	7	7	7	7	7	7	7	7	7	7	6	7	Never used other																									
86	5	5	5	2	5	5	5	5	4	5	5	3	1	2	2	3	4	4	3	5	4	1		5	6	6	2	6	6	6	6	5	5	6	6	7	6	5	6	5	6	6	5	7	7	7		
87	6	6	7	3	7	7	6	6	7	7	7	7	6	6	7	7	6	5	5	6	7	2		5	4	6	3	4	6	5	6	5	5	5	7	6	6	3	3	3	3	5	4	4	2	2		
88	5	3	3	1	7	7	7	7	2	7	1	6	7	7	3	4	7	1	6	7	1	6		7	7	7	5	7	7	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	
89	6	6	6	2	7	6	4	6	5	6	5	6	4	6	6	6	5	5	5	6	6	6		6	6	6	6	6	6	6	6	5	5	5	6	5	6	6	6	6	6	5	5	5	6	6	6	
90	6	6	5	4	6	7	5	6	5	5	4	5		6	4	5	6	5	5	5	4			4	5	4	6	6	5	5	7	6	5	6	6		6	5	5	3	4	4	5	4	2	2		
91		6	6	6	6	6	5	5	6	5	5	5	3	5	5	6	6	5	5	6	5	5																										
92	5	5	5	6	6	6	5	5	6	6	6	5	5	6	6	6	6	5	5	6	6	5		5	5	5	5	5	6	6	6	5	6	5	6	6	5	5	6	6	6	5	5	5	5	5		
93	5	6	4	7	7	6	7	7	6	6	6	6	7	7	7	6	6	7	6	6	6	6																										
94	5	6	6	2	5	7	3	6	6	6	5	5	2	4	6	3	4	5	5	6	5	4		4	5	5	5	6	5	4	6	6	6	6	5	2	6	6	4	6	4	5	6	6	4	4		
95	7	6	6	6	7	7	3	3	2	2	7	3	5	2	2	3	5	4	1	6	1	2	Renfreight	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
96	6	5	5	5	6	6	5	5	5	5	4	6	6	4	5	5	6	6	6	6	5	6																										
97	5	7	7	3	4	7	7	7	6	5	5	6	5	6	6	5	5	6	6	5	5	5		4	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7	7	
98	7	6	6	7	7	7	7	7	7	7	7	6	7	7	7	7	7	6	6	7	7	7	Exel	7	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7	7
99	7	5	5	5	5	7	4	7	7	5	5	6	4	5	6	6	7	5	5	5	5	6	Safcor Panalpina	6	6	6		6	6	6	6	5	5	5	7	5	6	6	6	5	5	5	5	7	7	7	7	7
100	4	5	5	1	2	5	1	2	5	5	3	5	5	4	4	5	1	1	6	6	4	5		6	7	7	7	7	7	7	7	7	7	7	7	7	5	7	7	7	7	7	7	7	7	7	7	
101	6	7	7	3	6	6	5	6	6	5	6	6	6	5	6	6	7	5	6	6	5	5	Renfreight	5	6	5	6	5	6	4	4	5	4	5	4	5	5	4	5	5	4	5	5	4	5	4	5	4
102	7	7	7	5	5	7	7	5	5	4	7	5	7	7	7	7	7	7	7	5	5	5	Safcor Panalpina	5	5	5	1	5	5	5	5	1	1	1	5	5	5	5	5	5	5	5	5	5	5	5	5	1
103	7	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	Never used other																									
104	6	6	6	4	5	6	5	6	6	7	6	6	6	6	6	6	6	6	6	6	6	6	ZA Trans	4	6	6	2	7	6	6	7	7	5	4	5	6	5	6	6	4	5	5	5	4	5	5	4	
105	6	6	6	4	6	6	5	5	5	5	5	6	6	6	6	6	6	6	7	7	6	6		5	5	5	4	6	6	6	6	6	6	6	6	6	6	6	6	7	7	6	7	6	6	6		

APPENDIX B - Raw Data

Count	168	171	170	170	171	171	171	171	171	171	171	168	171	170	171	171	171	171	170	171	171	171	161						53	126	128	128	125	128	128	127	128	128	128	128	128	127	128	127	128	127	127	127	124		
Mean	6.56	6.63	6.51	4.90	6.47	6.80	6.98	6.18	6.23	6.21	5.87	6.47	6.01	6.07	6.33	6.35	6.21	6.01	6.45	6.70	5.83	6.02							5.29	5.45	5.30	4.02	5.38	5.43	4.97	4.99	4.99	5.08	4.95	5.26	5.28	5.01	5.36	5.18	5.13	4.88	5.18	5.35	4.77	4.32	
Median	6.00	6.00	6.00	4.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	5.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00	5.00	5.00							5.00	6.00	5.00	4.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.50	5.00	6.00	6.00	5.00	5.00	5.00	6.00	5.00	4.00
Mode	7.00	6.00	6.00	4.00	7.00	7.00	7.00	7.00	7.00	7.00	5.00	6.00	5.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	5.00	5.00							6.00	6.00	6.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00	5.00	4.00
Kuehne & Nagel																						Competitor																													
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Name of competitor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22						
106	6	6	6	6	5	6	4	6	6	6	4	5	3	5	6	5	2	5	5	5	4	4		6	6	6	6	6	5	6	6	6	6	5	6	6	5	6	3	6	4	5	5	5	5						
107	5	5	5	5	6	6	4	3	5	4	4	6	5	6	4	6	4	5	5	6	5	2	Contract Forwarding	4	6	5	3	6	5	5	4	5	5	4	5	5	5	5	5	6	5	5	4	6	4						
108	5	5	4	4	4	4	4	3	5	5	4	5	5	4	4	4	3	1	4	4	4	4																													
109	6	5	5	4	7	7	7	7	7	7	7	7	7	7	7	6	7	6	6	6	5	5		6	5	5	4	6	6	5	6	5	7	6	5	6	5	6	6	5	5	5	6	5							
110	5	6	6	5	5	6	6	4	5	5	3	5	3	5	5	5	4	5	5	3	3		4	5	6	5	6	6	6	4	5	5	5	5	6	5	6	6		5	4	4	3								
111	7	7	6	4	7	7	7	7	7	7	6	6	6	7	7	7	7	7	7	7	7	7																													
112	6	6	5	5	7	6	7	6	6	7	6	7	5	6	7	6	5	6	6	7	6	7		5	6	6	5	5	6	5	5	5	5	6	6	6	5	5	5	5	5	6	4	5	5	4					
113	6	6	6	3	4	5	5	4	4	4	4	4	5	5	4	4	4	5	5	6	6	5	5		6	4	4	5	6	6	6	6	6	5	6	6	4	5	7	7	7	7	5	6	5	5					
114	3	6	6	2	4	4	2	2	2	2	2	2	2	5	2	3	3	6	2	3	5	3	6		6	6	6	7	7	7	7	7	7	7	7	7	6	6	7	7	4	6	5	5	6						
115	5	5	5	4	4	6	5	5	5	5	5	5	6	5	6	5	4	4	5	5	5	5																													
116	5	5	5	4	6	6	6	5	4	6	2	5	4	4	5	5	5	5	5	6	5	6	Never used other																												
117	7	6	7	4	6	6	6	7	5	5	4	6	5	6	6	6	6	6	6	6	5	6		6	6	6	4	5	5	4	4	4	4	5	5	6	5	5	5	5	6	5	5	6	5						
118	7	6	5	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	El-Shaddai	1	7	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
119	5	5	5	2	6	6	6	5	6	5	4	5	5	5	6	5	5	5	5	5	6	5	5		5	6	6	2	6	6	6	5	6	5	5	6	6	6	6	6	6	6	6	5	6	5					
120	5	5	5	4	5	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5	4	5	Never used other																												
121	5	6	6	4	5	5	6	5	4	5	5	6	4	4	4	2	4	5	5	5	4	2		6	6	5	4	7	7	7	6	6	6	6	6	6	5	6	6	4	6	6	6	7							
122	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		3	7	7	4	3	6	1	5	4	4	2	4	1	1	3	3	2	1	2	6	1							
123	5	4	4	1	4	5	5	4	5	1	1	5	5	5	5	5	7	6	7	7	4	4	Union Transport	6	7	7	5	7	7	7	7	7	7	6	7	7	6	7	7	7	7	7	7	7	7						
124	6	6	6	5	7	7	6	6	6	7	7	6	6	6	6	6	5	6	6	6	6	6	Clover Cargo	6	6	6	6	7	7	7	7	7	6	7	6	7	7	7	7	6	6	6	6	7	7						
125	7	7	7	7	7	7	7	7	7	7	7	7	4	7	7	7	4	7	7	7	7	7																													
126	6	6	6	2	4	4	6	2	4	2	1	4	6	4	2	2	6	4	4	4	2	6																													
127	7	6	6	5	6	7	4	5	6	4	5	5	4	4	5	6	4	4	5	4	4	5		7	7	7	5	6	6	5	6	6	5	4	7	5	6	7	6	5	5	6	5	5							
128	5	6	5	5	6	6	5	6	5	5	5	5	6	4	5	5	5	5	5	6	4	4		5	6	6	6	5	5	5	6	5	6	5	5	5	6	6	6	6	6	4	6	6							
129	4	6	6	3	4	6	4	4	3	2	6	6	4	5	3	6	6	6	5	7	6	6		6	6	6	7	7	6	6	6	6	6	6	6	6	6	6	7	6	7	6	6	5							
130	7	7	7	7	7	7	7	7	7	7	7	7	4	7	7	7	7	7	7	7	6	4	RTL	7	6	7	1	4	4	4	1	1	2	2	1	1	4	4	2	1	1	6	6	6							
131	6	6	6	5	6	6	5	6	5	6	5	5	5	5	6	5	5	5	6	5	4	4		5	5	5	5	6	6	5	6	5	4	5	6	5	4	4	4	4	4	5	5	4							
132	6	5	5	5	6	6	6	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6																													
133	7	7	7	5	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	7	7	4		7	7	7	6	7	5	5	5	6	6	6	6	6	6	6	6	6	6	3	5	5	5						
134	4	4	4	1	2	2	1	1	1	1	1	1	4	2	5	4	4	1	5	4	1	4		5	5	5	3	5	6	7	7	6	7	7	7	7	7	7	7	5	5	7	5	7							
135	7	7	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		7	7	4	2	7	7	7	4	5	7	5	5	5	5	6	5	7	5	6	6	5							
136	6	6	6	6	6	5	4	5	6	5	5	6	5	5	6	6	5	6	5	5	6	6																													
137	6	6	6	4	6	6	6	5	5	6	6	6	6	5	6	6	6	6	6	5	6	5		4	4	4	4	3	3	4	4	4	5	5	4	4	4	5	4	5	5	4	4	4							
138	5	4	5	2	4	4	1	1	1	1	3	5	2	1	1	5	1	5	5	1	2	5		3	6	5	2	6	5	6	5	5	6	5	5	5	5	5	6	6	6	5	4	4							
139	7	7	7	6	7	7	5	7	7	7	7	6	5	7	7	5	5	7	7	6	7	6	Renfreight	7	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4						
140	7	6	5	6	6	6	3	5	6	4	5	6	3	3	5	4	5	5	5	6	5	6		6	6	7	3	6	6	6	7	7	7	7	6	5	6	7	7	6	6	5	6	6							

APPENDIX B - Raw Data

Count	168	171	170	170	171	171	171	171	171	171	168	171	170	171	171	171	171	170	171	171	171	161	53										126	128	128	125	128	128	127	128	128	128	128	127	128	127	128	127	128	127	127	124
Mean	6.56	6.63	6.51	4.90	6.47	6.80	6.08	6.18	6.23	6.21	5.87	6.47	6.01	6.07	6.33	6.35	6.21	6.01	6.45	6.70	5.83	6.02			5.29	5.45	5.30	4.02	5.38	5.43	4.97	4.99	4.99	5.08	4.95	5.26	5.28	5.01	5.36	5.18	5.13	4.88	5.18	5.35	4.77	4.53						
Median	6.00	6.00	6.00	4.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	5.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00	5.00	5.00			5.00	6.00	5.00	4.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.00				
Mode	7.00	6.00	6.00	4.00	7.00	7.00	7.00	7.00	7.00	7.00	5.00	6.00	5.00	6.00	7.00	6.00	6.00	6.00	6.00	6.00	5.00	5.00			6.00	6.00	6.00	5.00	6.00	6.00	6.00	5.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00	5.00	5.00	4.00			
Kuehne & Nagel																						Competitor																														
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Name of competitor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22							
141	5	7	7	2	7	7	7	7	7	7	5	7	7	5	5	6	6	4	6	6	3	4		1	1	3	1	4	3	4	1	1	1	1	3	5	1	3	1	4	4	4	4	2	1							
142	6	6	7	3	4	5	5	4	7	7	7	7	4	4	6	6	6	6	6	6	4	4		6	6	6	2	3	3	3	3	4	2	4	4	4	6	4	4	5	5	1	3	3	4	4						
143	5	5	4	4	5	5	6	5	6	6	6	5	7	5	5	6	6	6	5	6	5	5		4	4	3	2	2	2	3	2	2	2	2	2	5	3	2	5	5	3	3	4	3	4							
144	5	4	5	1	1	5	1	5	4	4	2	4	5	4	5	4	6	3	6	6	4	5																														
145	5	5	5	2	5	5	5	5	6	5	5	6	6	5	6	5	6	5	6	5	5	5																														
146	6	6	6	5	7	7	7	7	7	7	7	7	7	7	7	7	6	7	6	7	6	6																														
147	7	7	7	4	7	7	7	6	7	7	5	7	5	7	7	7	6	7	6	7	6	7																														
148	5	6	6	4	6	6	5	6	6	5	5	6	5	5	6	6	5	6	6	6	5	5		5	5	6	3	5	5	4	5	5	4	4	5	5	5	5	5	4	5	4	5	4	5	4						
149	5	5	5	2	6	6	5	5	5	5	5	6	5	4	4	4	6	5	5	6	3	5																														
150	7	7	6	3	7	7	7	5	5	6	7	6	7	6	6	7	5	4	5	7	6	6		5	7	5	7	7	7	5	6	7	6	7	5	4	4	4	4	3	3	3	7	7	3	3						
151	7	6	6	6	5	7	5	6	7	7	7	7	5	5	5	6	4	7	7	7	5	6		6	6	6	6	6	6	5	5	5	7	7	6	5	7	7	7	7	7	6	6	6	6	6						
152	6	6	6	6	6	7	6	7	7	7	7	7	5	7	7	7	7	7	6	7	7	6		6	6	6	7	6	7	6	7	7	7	7	7	7	6	6	7	7	7	7	7	7	6	6	6					
153	5	4	4	4	4	6	4	5	4	5	5	4	6	4	5	5	5	5	6	6	3	6		6	6	5	4	5	4	4	3	4	4	3	4	6	2	5	4	4	4	4	5	5	4	4						
154	5	5	5	3	6	6	5	4	5	5	3	5	5	5	5	6	5	4	4	5	4	4		5	6	5	6	6	6	5	5	6	6	6	5	6	6	6	5	6	6	5	6	6	6	5	5					
155	5	3	3	3	5	6	3	3	3	4	5	3	6	4	5	5	4	3	2	5	1	3																														
156	7	7	4	4	7	7	7	7	7	7	6	7	6	7	5	6	4	6	6	6	7	6																														
157	7	7	7	7	7	7	6	7	7	6	7	7	7	7	7	7	7	7	7	7	6	6		4	4	5	4	5	5	5	3	4	5	4	5	5	6	5	4	4	5	4	5	4	4							
158	5	4	4	5	4	4	3	4	4	5	3	4	3	3	4	3	3	4	4	4	3	3		4	4	4	5	6	6	4	6	5	6	4	5	5	4	5	5	5	4	5	5	4	3	3	4					
159	6	7	5	5	7	7	7	7	4	5	5	6	4	4	3	4	4	7	4	6	5	7		5	6	6	6	6	5	5	6	7	6	5	6	5	7	7	7	7	7	7	5	6	7	5						
160	6	6	6	3	6	6	5	5	5	6	4	6	4	5	5	4	5	5	6	6	6	5		4	6	6	2	3	3	3	3	3	3	4	3	5	6	5	5	5	5	4	5	6	5	4						
161	5	6	6	4	6	6	6	6	6	6	5	6	5	6	6	6	6	6	6	6	6	4		6	5	5	4	6	6	6	6	6	6	6	5	5	6	6	6	6	6	6	6	6	6	6						
162	6	6	6	4	6	6	6	6	6	7	7	6	5	6	7	6	6	5	5	4	6	6		6	6	6	4	7	7	6	7	7	7	6	7	6	7	6	7	6	7	6	6	6	5	6						
163	6	6	6	3	7	7	5	6	6	5	5	6	7	6	7	7	5	6	7	7	4	5		7	4	7	3	4	4	5	4	4	3	3	6	1	3	5	6	7	4	7	7	5	6	5						

APPENDIX C - Analysis of Raw Data

Question		Importance																						
		Tangibles					Reliability				Responsiveness				Assurance					Empathy				
		2	3	19	20	22	14	15	16	21	7	17	18	21	1	5	6	9	12	13	4	8	10	11
Total	Individual	5.77	5.54	5.94	5.96	5.99	6.60	6.78	6.80	6.62	6.78	6.42	6.53	6.62	5.87	6.79	6.71	6.59	6.72	6.48	4.53	6.17	6.51	6.37
	Mean	5.84					6.70				6.59				6.53					5.89				
	Ave.Dev.	0.15					0.09				0.11				0.23					0.68				
JS	Individual	5.50	5.22	5.85	5.87	5.85	6.58	6.75	6.80	6.63	6.75	6.55	6.55	6.63	5.73	6.70	6.70	6.53	6.75	6.50	4.40	6.02	6.48	6.22
	Mean	5.66					6.69				6.62				6.49					5.78				
	Ave.Dev.	0.24					0.08				0.07				0.25					0.69				
JA	Individual	5.54	5.31	5.81	5.92	5.88	6.59	6.75	6.78	6.68	6.78	6.42	6.54	6.68	5.68	6.76	6.69	6.54	6.73	6.51	4.42	6.10	6.47	6.20
	Mean	5.69					6.70				6.61				6.49					5.80				
	Ave.Dev.	0.21					0.06				0.12				0.27					0.69				
CS	Individual	5.75	5.31	5.84	5.91	6.13	6.59	6.75	6.56	6.53	6.75	6.19	6.34	6.53	5.91	6.84	6.59	6.53	6.63	6.22	4.56	6.31	6.50	6.38
	Mean	5.79					6.61				6.45				6.45					5.94				
	Ave.Dev.	0.21					0.07				0.19				0.26					0.69				
CA	Individual	6.03	5.69	5.90	5.76	6.17	6.76	6.93	6.76	6.66	6.86	6.41	6.52	6.66	5.97	6.97	6.79	6.66	6.86	6.38	4.79	6.31	6.59	6.41
	Mean	5.91					6.78				6.61				6.60					6.03				
	Ave.Dev.	0.15					0.08				0.15				0.29					0.62				
Plz	Individual	6.00	5.93	6.14	6.00	6.29	6.36	6.86	6.93	6.43	6.93	6.29	6.36	6.43	6.21	6.79	6.79	6.71	6.93	6.57	4.21	6.36	6.50	6.64
	Mean	6.07					6.64				6.50				6.67					5.93				
	Ave.Dev.	0.11					0.25				0.21				0.18					0.86				
DS	Individual	6.26	5.86	6.23	6.37	5.89	6.54	6.83	6.89	6.74	6.77	6.54	6.66	6.74	6.26	6.80	6.71	6.66	6.77	6.69	4.91	6.31	6.57	6.40
	Mean	6.12					6.75				6.68				6.65					6.05				
	Ave.Dev.	0.20					0.11				0.08				0.13					0.57				
DA	Individual	5.95	5.79	6.11	6.11	5.95	6.58	6.95	7.00	6.63	6.63	6.53	6.58	6.63	5.74	6.74	6.79	6.74	6.79	6.68	4.79	6.26	6.58	6.63
	Mean	5.98					6.79				6.59				6.58					6.07				
	Ave.Dev.	0.10					0.18				0.04				0.28					0.64				
Pzb	Individual	5.86	5.86	6.57	6.43	5.86	6.57	6.71	6.86	6.86	6.57	6.71	6.71	6.86	5.71	6.71	6.71	6.57	6.57	6.57	5.57	6.43	6.43	6.43
	Mean	6.11					6.75				6.71				6.48					6.21				
	Ave.Dev.	0.31					0.11				0.07				0.25					0.32				
Bfn	Individual	4.86	5.14	5.57	5.86	6.29	6.86	6.43	7.00	6.43	6.86	5.71	6.57	6.43	5.57	7.00	6.43	6.00	6.00	6.14	4.43	5.71	6.43	6.71
	Mean	5.54					6.68				6.39				6.19					5.82				
	Ave.Dev.	0.43					0.25				0.34				0.35					0.75				
Els	Individual	6.25	6.17	5.75	5.75	5.83	6.67	6.83	6.75	6.50	6.75	6.33	6.25	6.50	6.00	6.92	6.92	6.83	6.75	6.83	4.83	6.67	6.50	6.33
	Mean	5.95					6.69				6.46				6.71					6.08				
	Ave.Dev.	0.21					0.10				0.17				0.24					0.63				

APPENDIX C - Analysis of Raw Data

Question	
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Importance																						
Tangibles					Reliability				Responsiveness				Assurance					Empathy				
2	3	19	20	22	14	15	16	21	7	17	18	21	1	5	6	9	12	13	4	8	10	11

FS	Individual
	Mean
	Ave.Dev.
SI	Individual
	Mean
	Ave.Dev.
SC	Individual
	Mean
	Ave.Dev.
SE	Individual
	Mean
	Ave.Dev.

5.65	5.41	5.93	5.98	5.94	6.54	6.74	6.79	6.59	6.75	6.39	6.50	6.59	5.83	6.75	6.70	6.51	6.71	6.49	4.55	6.16	6.44	6.31
5.78					6.67				6.56				6.50					5.87				
0.20					0.10				0.11				0.22					0.66				
5.55	5.38	5.92	5.88	5.88	6.53	6.69	6.76	6.57	6.75	6.38	6.51	6.57	5.75	6.71	6.66	6.48	6.65	6.52	4.43	6.06	6.38	6.30
5.72					6.64				6.55				6.46					5.79				
0.21					0.09				0.11				0.24					0.68				
5.52	5.35	5.92	5.90	5.88	6.54	6.74	6.78	6.58	6.74	6.38	6.48	6.58	5.75	6.71	6.71	6.51	6.69	6.51	4.36	6.10	6.42	6.27
5.71					6.66				6.55				6.48					5.79				
0.22					0.10				0.12				0.24					0.71				
5.87	5.50	5.95	6.16	6.06	6.56	6.81	6.82	6.63	6.76	6.40	6.50	6.63	5.98	6.82	6.74	6.53	6.79	6.45	4.87	6.32	6.52	6.37
5.91					6.71				6.57				6.55					6.02				
0.18					0.11				0.12				0.23					0.57				

FA	Individual
	Mean
	Ave.Dev.
AI	Individual
	Mean
	Ave.Dev.
AC	Individual
	Mean
	Ave.Dev.
AE	Individual
	Mean
	Ave.Dev.

5.72	5.49	5.90	5.92	5.94	6.56	6.80	6.83	6.61	6.75	6.39	6.51	6.61	5.79	6.80	6.72	6.58	6.78	6.48	4.42	6.16	6.49	6.33
5.79					6.70				6.56				6.53					5.85				
0.15					0.12				0.11				0.26					0.72				
5.67	5.54	5.88	5.88	5.96	6.56	6.75	6.84	6.60	6.79	6.41	6.52	6.60	5.71	6.76	6.68	6.60	6.74	6.51	4.40	6.16	6.46	6.32
5.79					6.69				6.58				6.50					5.83				
0.15					0.11				0.12				0.26					0.72				
5.65	5.45	5.88	5.85	5.94	6.55	6.79	6.84	6.61	6.78	6.41	6.52	6.61	5.66	6.78	6.72	6.64	6.79	6.48	4.26	6.13	6.48	6.28
5.75					6.70				6.58				6.51					5.79				
0.16					0.11				0.11				0.29					0.76				
5.82	5.47	5.95	6.02	5.93	6.56	6.86	6.82	6.61	6.68	6.33	6.51	6.61	6.02	6.86	6.77	6.51	6.81	6.44	4.60	6.19	6.53	6.40
5.84					6.71				6.54				6.57					5.93				
0.15					0.13				0.11				0.25					0.67				

APPENDIX C - Analysis of Raw Data

KUEHNE & NAGEL																								
Tangibles					Reliability				Responsiveness				Assurance					Empathy						
2	3	19	20	22	14	15	16	21	7	17	18	21	1	5	6	9	12	13	4	8	10	11		
Total	Individual	5.94	5.81	5.65	5.91	5.20	5.28	5.55	5.56	4.99	5.34	5.41	5.20	4.99	5.88	5.76	6.09	5.48	5.72	5.22	4.12	5.43	5.45	5.09
	Mean	5.70					5.34				5.23				5.69					5.02				
	Ave.Dev.	0.22					0.21				0.14				0.23					0.45				
JS	Individual	5.87	5.82	5.48	5.73	5.06	4.93	5.32	5.40	4.68	5.07	5.28	5.10	4.68	5.84	5.65	5.93	5.20	5.45	4.86	4.15	5.17	5.08	4.95
	Mean	5.59					5.08				5.03				5.49					4.84				
	Ave.Dev.	0.26					0.28				0.18				0.32					0.34				
JA	Individual	5.85	5.72	5.46	5.93	5.14	5.19	5.46	5.64	4.95	5.15	5.36	5.28	4.95	5.97	5.75	6.03	5.29	5.63	5.02	4.27	5.34	5.27	5.14
	Mean	5.62					5.31				5.18				5.61					5.00				
	Ave.Dev.	0.26					0.24				0.13				0.31					0.37				
CS	Individual	6.00	5.84	5.63	5.91	5.34	5.13	5.38	5.38	4.97	5.16	5.16	5.13	4.97	5.75	5.44	6.00	5.31	5.41	5.22	4.16	5.50	5.44	4.84
	Mean	5.74					5.21				5.10				5.52					4.98				
	Ave.Dev.	0.21					0.16				0.07				0.24					0.48				
CA	Individual	6.10	5.72	5.55	5.93	5.54	5.28	5.45	5.55	5.24	5.24	5.14	4.97	5.24	5.76	5.41	6.03	5.45	5.55	5.14	3.76	5.34	5.59	4.86
	Mean	5.77					5.38				5.15				5.56					4.89				
	Ave.Dev.	0.20					0.12				0.09				0.23					0.58				
Plz	Individual	6.21	6.29	5.64	5.93	5.07	5.93	6.29	6.07	5.36	6.21	5.50	5.71	5.36	6.29	6.57	6.64	6.07	6.29	5.43	4.21	5.93	6.07	6.00
	Mean	5.83					5.91				5.70				6.21					5.55				
	Ave.Dev.	0.38					0.28				0.27				0.31					0.67				
DS	Individual	5.89	5.91	5.91	6.03	5.29	5.57	5.89	5.77	5.06	5.69	5.71	5.34	5.06	5.94	5.91	6.26	5.66	6.03	5.69	4.17	5.74	5.69	5.14
	Mean	5.81					5.57				5.45				5.91					5.19				
	Ave.Dev.	0.21					0.26				0.25				0.16					0.53				
DA	Individual	6.11	5.95	5.84	5.95	5.32	5.58	5.79	5.79	5.16	5.42	5.47	5.42	5.16	5.89	5.79	6.26	5.58	5.89	5.63	4.53	5.58	5.47	5.26
	Mean	5.83					5.58				5.37				5.84					5.21				
	Ave.Dev.	0.21					0.21				0.11				0.18					0.34				
Pzb	Individual	5.71	5.57	5.86	5.86	5.14	5.57	5.86	5.86	5.71	5.57	5.57	5.57	5.71	5.57	5.86	6.14	5.86	5.86	5.29	4.43	5.71	5.57	4.86
	Mean	5.63					5.75				5.61				5.76					5.14				
	Ave.Dev.	0.22					0.11				0.05				0.22					0.50				
Bfn	Individual	5.71	5.71	4.71	5.43	4.43	4.57	4.71	5.14	4.29	4.43	4.86	4.86	4.29	6.14	5.86	6.29	5.29	5.14	5.00	5.00	4.86	5.29	5.71
	Mean	5.20					4.68				4.61				5.62					5.21				
	Ave.Dev.	0.50					0.25				0.25				0.48					0.29				
Els	Individual	6.33	5.92	6.00	6.08	5.50	6.25	6.33	6.42	5.67	5.58	5.75	6.00	5.67	6.17	6.42	6.50	6.50	6.42	5.75	4.64	6.25	6.25	5.75
	Mean	5.97					6.17				5.75				6.29					5.72				
	Ave.Dev.	0.21					0.25				0.13				0.22					0.54				

Question	
Total	Individual
	Mean
	Ave.Dev.
JS	Individual
	Mean
	Ave.Dev.
JA	Individual
	Mean
	Ave.Dev.
CS	Individual
	Mean
	Ave.Dev.
CA	Individual
	Mean
	Ave.Dev.
Plz	Individual
	Mean
	Ave.Dev.
DS	Individual
	Mean
	Ave.Dev.
DA	Individual
	Mean
	Ave.Dev.
Pzb	Individual
	Mean
	Ave.Dev.
Bfn	Individual
	Mean
	Ave.Dev.
Els	Individual
	Mean
	Ave.Dev.

APPENDIX C - Analysis of Raw Data

KUEHNE & NAGEL																						
Tangibles					Reliability				Responsiveness				Assurance					Empathy				
2	3	19	20	22	14	15	16	21	7	17	18	21	1	5	6	9	12	13	4	8	10	11

Question

FS	Individual
	Mean
	Ave.Dev.
SI	Individual
	Mean
	Ave.Dev.
SC	Individual
	Mean
	Ave.Dev.
SE	Individual
	Mean
	Ave.Dev.

5.94	5.84	5.60	5.95	5.23	5.30	5.58	5.64	5.10	5.31	5.39	5.29	5.10	5.89	5.76	6.17	5.57	5.78	5.19	4.27	5.55	5.56	5.19
5.71					5.41				5.28				5.73					5.14				
0.24					0.21				0.09				0.23					0.44				
5.86	5.77	5.63	5.92	5.16	5.23	5.56	5.59	5.02	5.23	5.42	5.24	5.02	5.87	5.69	6.10	5.51	5.69	5.13	4.21	5.45	5.45	5.06
5.67					5.35				5.23				5.66					5.04				
0.22					0.23				0.10				0.23					0.42				
5.84	5.76	5.55	5.93	5.16	5.24	5.56	5.63	5.02	5.18	5.40	5.30	5.02	5.92	5.66	6.12	5.53	5.70	5.11	4.21	5.45	5.49	5.16
5.65					5.36				5.23				5.67					5.08				
0.24					0.23				0.13				0.24					0.43				
6.11	5.98	5.63	5.98	5.39	5.45	5.63	5.71	5.26	5.53	5.35	5.34	5.26	5.89	5.94	6.29	5.66	5.95	5.32	4.38	5.76	5.73	5.34
5.82					5.51				5.37				5.84					5.30				
0.25					0.16				0.08				0.23					0.46				

FA	Individual
	Mean
	Ave.Dev.
AI	Individual
	Mean
	Ave.Dev.
AC	Individual
	Mean
	Ave.Dev.
AE	Individual
	Mean
	Ave.Dev.

5.98	5.76	5.62	5.93	5.35	5.37	5.61	5.72	5.18	5.31	5.39	5.29	5.18	5.97	5.74	6.14	5.58	5.80	5.27	4.27	5.51	5.55	5.18
5.73					5.47				5.29				5.75					5.13				
0.19					0.19				0.06				0.22					0.43				
5.92	5.72	5.67	5.92	5.22	5.33	5.58	5.65	5.08	5.27	5.41	5.26	5.08	5.95	5.71	6.08	5.52	5.74	5.24	4.19	5.43	5.49	5.01
5.69					5.41				5.26				5.71					5.03				
0.19					0.21				0.09				0.22					0.43				
5.87	5.65	5.61	5.93	5.30	5.34	5.55	5.66	5.06	5.25	5.44	5.26	5.06	5.95	5.71	6.09	5.47	5.73	5.25	4.26	5.44	5.48	5.05
5.67					5.40				5.25				5.70					5.06				
0.18					0.20				0.10				0.23					0.40				
6.16	5.89	5.56	5.93	5.53	5.46	5.68	5.86	5.40	5.42	5.32	5.36	5.40	6.02	5.81	6.25	5.75	5.93	5.32	4.38	5.67	5.68	5.48
5.81					5.60				5.37				5.85					5.30				
0.22					0.17				0.04				0.22					0.46				

Question		Competition																						
		Tangibles					Reliability				Responsiveness				Assurance					Empathy				
		2	3	19	20	22	14	15	16	21	7	17	18	21	1	5	6	9	12	13	4	8	10	11
Total	Individual	5.45	5.30	5.18	5.35	4.32	5.01	5.36	5.18	4.77	4.97	5.13	4.88	4.77	5.29	5.38	5.43	4.99	5.26	5.28	4.02	4.99	5.08	4.95
	Mean	5.12					5.08				4.94				5.27					4.76				
	Ave.Dev.	0.32					0.19				0.11				0.10					0.37				
JS	Individual	5.32	5.15	5.11	5.28	4.16	4.96	5.30	5.06	4.65	5.07	5.22	4.89	4.65	4.96	5.43	5.34	4.96	5.09	5.15	4.16	4.74	4.83	4.91
	Mean	5.00					4.99				4.96				5.15					4.66				
	Ave.Dev.	0.34					0.19				0.18				0.15					0.25				
JA	Individual	5.32	5.14	5.16	5.26	4.30	4.95	5.26	4.98	4.65	5.07	5.14	5.02	4.65	5.12	5.41	5.41	5.05	5.16	5.26	4.21	4.93	4.93	4.93
	Mean	5.03					4.96				4.97				5.23					4.75				
	Ave.Dev.	0.29					0.16				0.16				0.13					0.27				
CS	Individual	5.63	5.15	5.04	5.19	3.93	4.78	5.33	5.07	4.56	4.93	5.00	4.85	4.56	5.33	5.30	5.44	4.93	5.00	5.19	4.15	4.89	5.04	4.89
	Mean	4.99					4.94				4.83				5.20					4.74				
	Ave.Dev.	0.42					0.27				0.14				0.16					0.29				
CA	Individual	5.25	4.79	4.92	5.13	3.91	4.75	5.29	4.96	4.38	4.75	4.96	4.71	4.38	5.25	5.17	5.29	4.88	5.17	5.25	4.09	5.04	5.17	4.79
	Mean	4.80					4.84				4.70				5.17					4.77				
	Ave.Dev.	0.36					0.28				0.16				0.10					0.34				
Plz	Individual	5.46	5.38	4.85	5.31	4.62	4.69	5.23	5.00	4.46	4.54	5.00	4.92	4.46	5.31	5.08	5.00	4.38	4.77	5.77	3.62	4.62	4.85	4.69
	Mean	5.12					4.85				4.73				5.05					4.44				
	Ave.Dev.	0.31					0.27				0.23				0.33					0.41				
DS	Individual	5.78	5.83	5.48	5.57	4.23	5.17	5.65	5.61	5.04	5.04	5.09	5.09	5.04	5.70	5.57	5.78	5.39	5.78	5.52	4.04	5.57	5.39	5.17
	Mean	5.38					5.37				5.07				5.62					5.04				
	Ave.Dev.	0.46					0.26				0.02				0.13					0.50				
DA	Individual	5.21	5.29	5.14	5.71	4.00	4.21	5.14	5.00	4.36	4.43	4.43	4.07	4.36	5.43	4.79	5.29	4.86	5.29	4.79	4.00	4.93	4.71	4.57
	Mean	5.07					4.68				4.32				5.07					4.55				
	Ave.Dev.	0.43					0.39				0.13				0.26					0.28				
Pzb	Individual	6.00	5.40	5.60	5.80	4.60	5.40	5.80	5.80	5.40	5.60	5.40	5.40	5.40	6.20	6.20	6.00	5.60	5.60	6.00	3.60	5.00	5.60	5.20
	Mean	5.48					5.60				5.45				5.93					4.85				
	Ave.Dev.	0.38					0.20				0.07				0.22					0.63				
Bfn	Individual	6.00	5.86	5.57	5.29	5.14	5.57	5.86	5.57	5.00	5.29	5.43	5.57	5.00	5.57	6.00	5.86	5.71	5.71	5.71	5.00	5.71	5.86	5.43
	Mean	5.57					5.50				5.32				5.76					5.50				
	Ave.Dev.	0.29					0.25				0.18				0.11					0.29				
Els	Individual	5.43	5.43	5.00	5.29	5.14	5.43	5.00	5.00	5.00	4.86	5.00	4.71	5.00	5.86	5.57	5.71	5.14	5.29	5.57	3.00	4.86	4.57	4.71
	Mean	5.26					5.11				4.89				5.52					4.29				
	Ave.Dev.	0.15					0.16				0.11				0.21					0.64				

APPENDIX C - Analysis of Raw Data

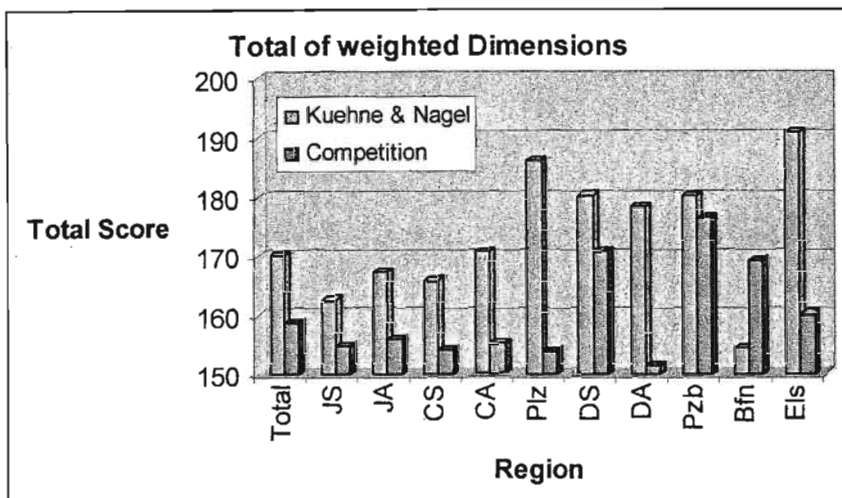
Question		Competition																						
		Tangibles					Reliability				Responsiveness				Assurance				Empathy					
		2	3	19	20	22	14	15	16	21	7	17	18	21	1	5	6	9	12	13	4	8	10	11
FS	Individual	5.54	5.28	5.13	5.33	4.33	5.00	5.36	5.15	4.77	4.95	5.12	4.87	4.77	5.27	5.43	5.45	5.01	5.20	5.18	4.07	4.95	5.00	4.89
	Mean	5.12					5.07				4.93				5.26				4.72					
	Ave.Dev.	0.32					0.18				0.10				0.13				0.33					
SI	Individual	5.54	5.25	5.15	5.30	4.38	5.01	5.28	5.16	4.73	4.87	5.16	4.84	4.73	5.29	5.44	5.44	4.96	5.20	5.16	4.13	4.96	4.98	4.84
	Mean	5.12					5.05				4.90				5.25				4.73					
	Ave.Dev.	0.30					0.17				0.13				0.14				0.30					
SC	Individual	5.49	5.18	5.15	5.23	4.37	5.04	5.38	5.18	4.77	4.98	5.15	4.90	4.77	5.28	5.52	5.52	5.04	5.22	5.17	4.03	4.99	5.01	4.94
	Mean	5.08					5.09				4.95				5.29				4.74					
	Ave.Dev.	0.29					0.19				0.12				0.15				0.36					
SE	Individual	5.58	5.42	5.10	5.45	4.24	4.94	5.43	5.10	4.82	4.98	5.04	4.88	4.82	5.22	5.32	5.40	5.02	5.18	5.20	4.04	4.90	5.00	4.88
	Mean	5.16					5.07				4.93				5.22				4.71					
	Ave.Dev.	0.39					0.19				0.08				0.09				0.33					
FA	Individual	5.40	5.16	5.01	5.26	4.26	4.71	5.24	4.85	4.53	4.73	4.85	4.65	4.53	5.22	5.19	5.26	4.83	5.09	5.15	4.03	4.81	4.80	4.68
	Mean	5.02					4.83				4.69				5.12				4.58					
	Ave.Dev.	0.31					0.21				0.10				0.11				0.28					
AI	Individual	5.38	5.15	4.97	5.30	4.25	4.66	5.13	4.83	4.43	4.71	4.86	4.58	4.43	5.26	5.21	5.24	4.72	5.08	5.06	3.87	4.86	4.79	4.56
	Mean	5.01					4.76				4.64				5.09				4.52					
	Ave.Dev.	0.32					0.22				0.14				0.14				0.33					
AC	Individual	5.31	5.11	4.98	5.23	4.26	4.73	5.20	4.87	4.51	4.74	4.92	4.66	4.51	5.23	5.19	5.26	4.76	5.11	5.13	3.98	4.85	4.74	4.60
	Mean	4.98					4.83				4.71				5.11				4.54					
	Ave.Dev.	0.29					0.21				0.12				0.12				0.28					
AE	Individual	5.50	5.23	5.08	5.26	4.28	4.75	5.38	4.85	4.67	4.74	4.77	4.73	4.67	5.18	5.18	5.28	5.00	5.08	5.28	4.24	4.73	4.88	4.88
	Mean	5.07					4.91				4.73				5.16				4.68					
	Ave.Dev.	0.31					0.24				0.03				0.08				0.22					

APPENDIX D - Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
	Mean	6.560	6.626	6.506	4.900	6.474	6.795	6.082	6.175	6.234	6.211	5.869	6.474	6.006	6.070	6.327	6.345	6.211	6.012	6.450	6.702	5.830	
1	6.56	1.000																					
2	6.63	1.010	1.000																				
3	6.51	0.992	0.982	1.000																			
4	4.90	0.747	0.740	0.753	1.000																		
5	6.47	0.987	0.977	0.995	1.321	1.000																	
6	6.80	1.036	1.026	1.044	1.387	1.050	1.000																
7	6.08	0.927	0.918	0.935	1.241	0.939	0.895	1.000															
8	6.18	0.941	0.932	0.949	1.260	0.954	0.909	1.015	1.000														
9	6.23	0.950	0.941	0.958	1.272	0.963	0.917	1.025	1.009	1.000													
10	6.21	0.947	0.937	0.955	1.267	0.959	0.914	1.021	1.006	0.996	1.000												
11	5.87	0.895	0.886	0.902	1.198	0.907	0.864	0.965	0.950	0.941	0.945	1.000											
12	6.47	0.987	0.977	0.995	1.321	1.000	0.953	1.064	1.048	1.038	1.042	1.103	1.000										
13	6.01	0.916	0.906	0.923	1.226	0.928	0.884	0.988	0.973	0.963	0.967	1.023	0.928	1.000									
14	6.07	0.925	0.916	0.933	1.239	0.938	0.893	0.998	0.983	0.974	0.977	1.034	0.938	1.011	1.000								
15	6.33	0.965	0.955	0.973	1.291	0.977	0.931	1.040	1.025	1.015	1.019	1.078	0.977	1.054	1.042	1.000							
16	6.35	0.967	0.958	0.975	1.295	0.980	0.934	1.043	1.027	1.018	1.022	1.081	0.980	1.056	1.045	1.003	1.000						
17	6.21	0.947	0.937	0.955	1.267	0.959	0.914	1.021	1.006	0.996	1.000	1.058	0.959	1.034	1.023	0.982	0.979	1.000					
18	6.01	0.916	0.907	0.924	1.227	0.929	0.885	0.988	0.973	0.964	0.968	1.024	0.929	1.001	0.990	0.950	0.947	0.968	1.000				
19	6.45	0.983	0.974	0.991	1.316	0.996	0.949	1.061	1.045	1.035	1.039	1.099	0.996	1.074	1.063	1.019	1.017	1.039	1.073	1.000			
20	6.70	1.022	1.011	1.030	1.368	1.035	0.986	1.102	1.085	1.075	1.079	1.142	1.035	1.116	1.104	1.059	1.056	1.079	1.115	1.039	1.000		
21	5.83	0.889	0.880	0.896	1.190	0.901	0.858	0.959	0.944	0.935	0.939	0.993	0.901	0.971	0.961	0.921	0.919	0.939	0.970	0.904	0.870	1.000	
22	6.02	0.918	0.909	0.926	1.230	0.931	0.887	0.991	0.976	0.966	0.970	1.027	0.931	1.003	0.993	0.952	0.950	0.970	1.002	0.934	0.899	1.033	

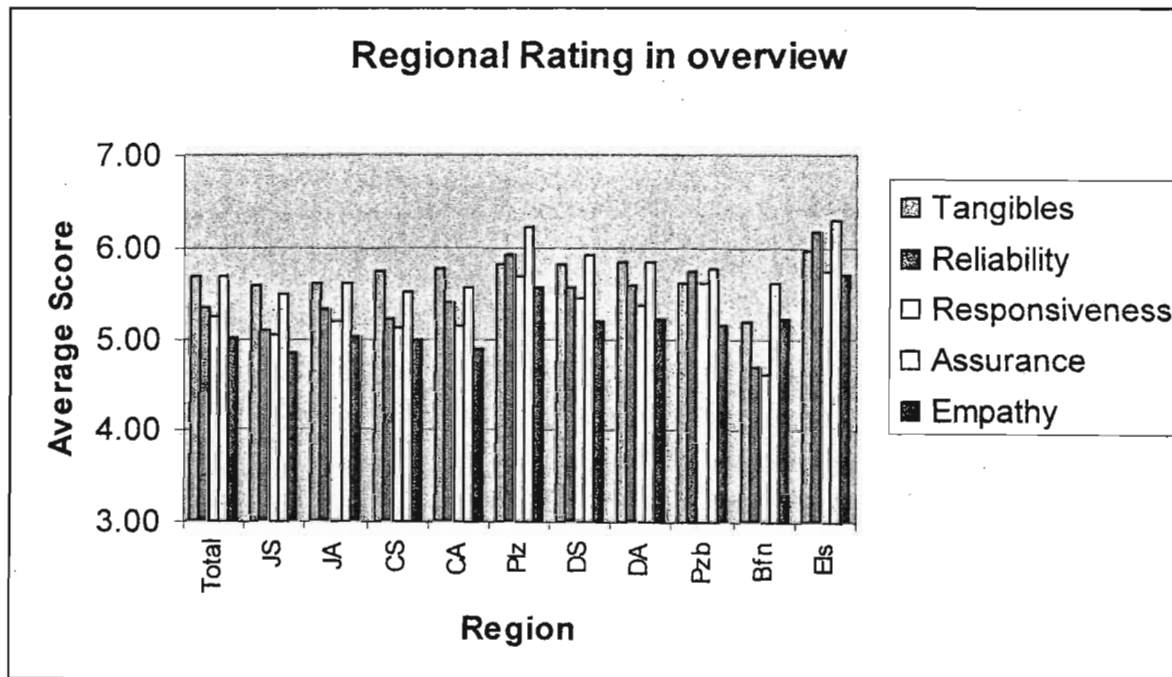
APPENDIX E –REGIONAL RESULTS

To indicate a level of total ratings, the achieved scores in the individual dimension have been multiplied with the importance level. The sum of the 5 respective weighted dimensions have then been added individually for KN and for the competitor-ratings.



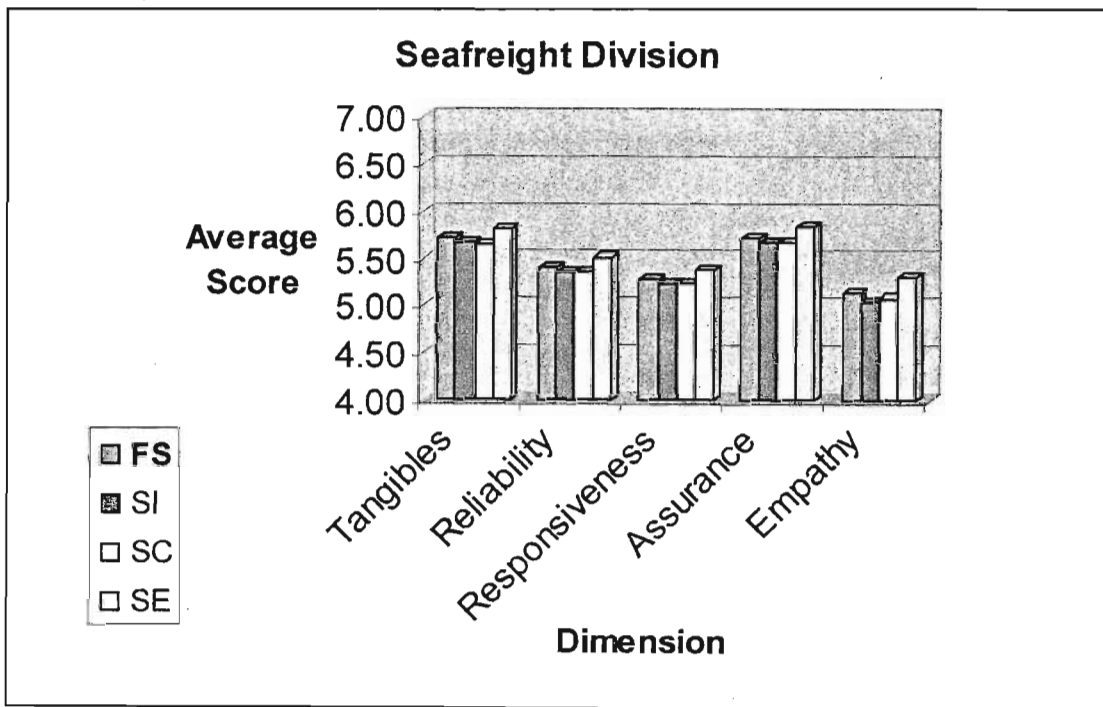
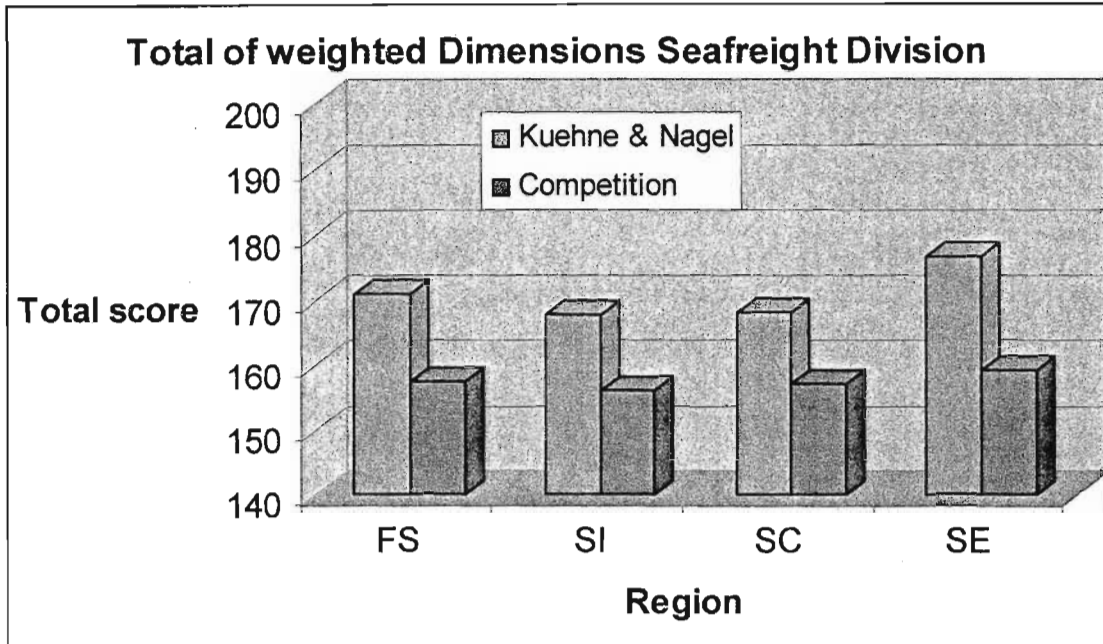
The achieved scores for Pietermaritzburg and Bloemfontein have to be taken with care, as they are based on only 8 respondents for Bfn (22%) and 6 respondents for Pzb (35%).

For both stations, part of the respondents remarked on their questionnaires that the low ratings for performance would only apply to the operational back-up office, (i.e. Johannesburg Seafreight for Bloemfontein and Durban Seafreight for Pietermaritzburg) and that the performance of Pzb and Bfn would be much better.



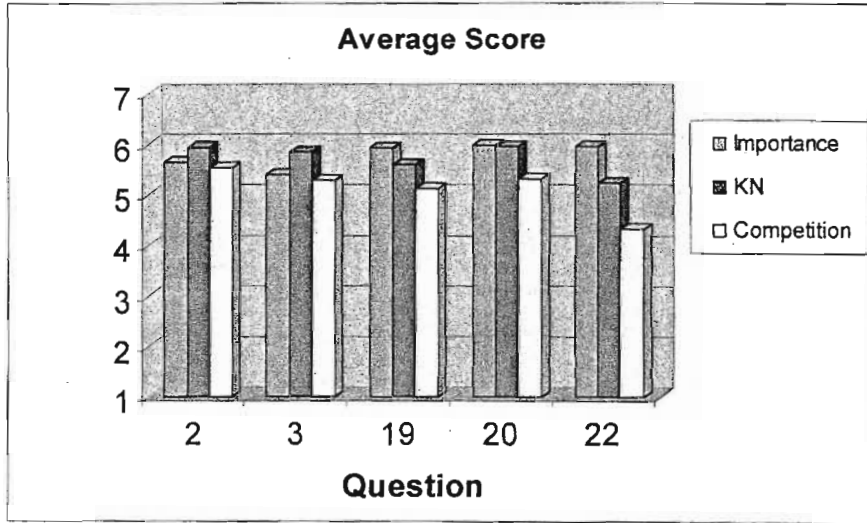
APPENDIX F – DIVISIONAL RESULTS: SEAFREIGHT

Subdivision: SI = Seafreight Import
 SC = Seafreight Clearing
 SE = Seafreight Export

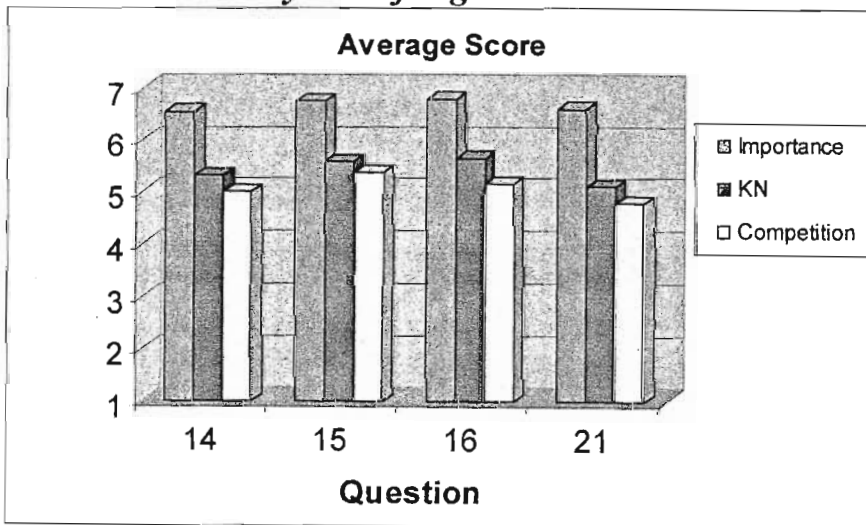


APPENDIX F – DIVISIONAL RESULTS: SEAFREIGHT

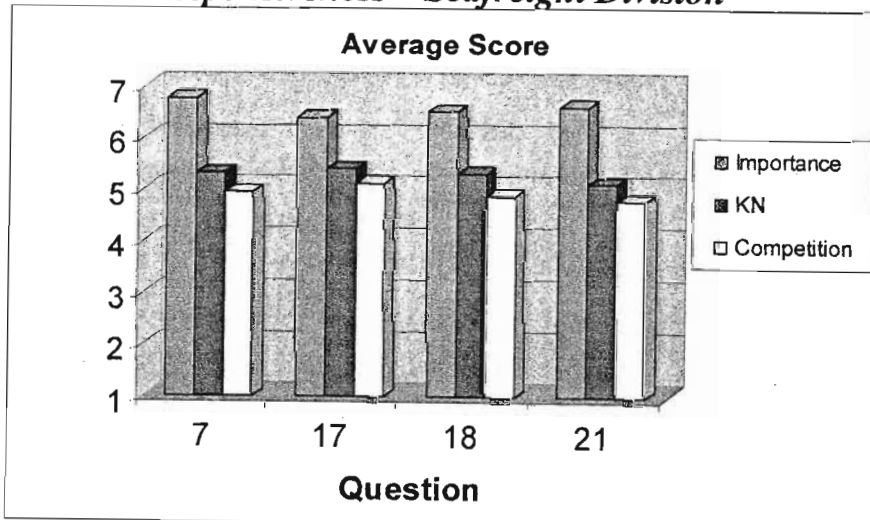
Tangibles – Seafreight Division



Reliability – Seafreight Division

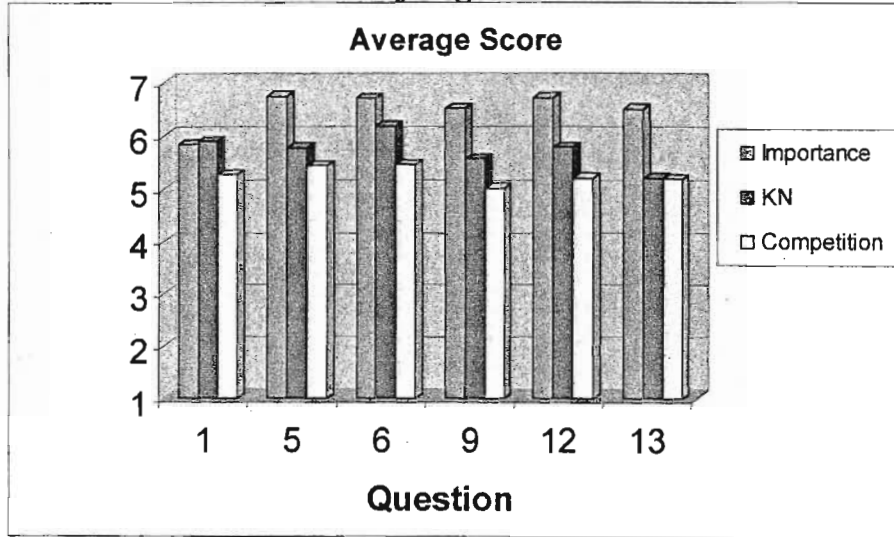


Responsiveness – Seafreight Division

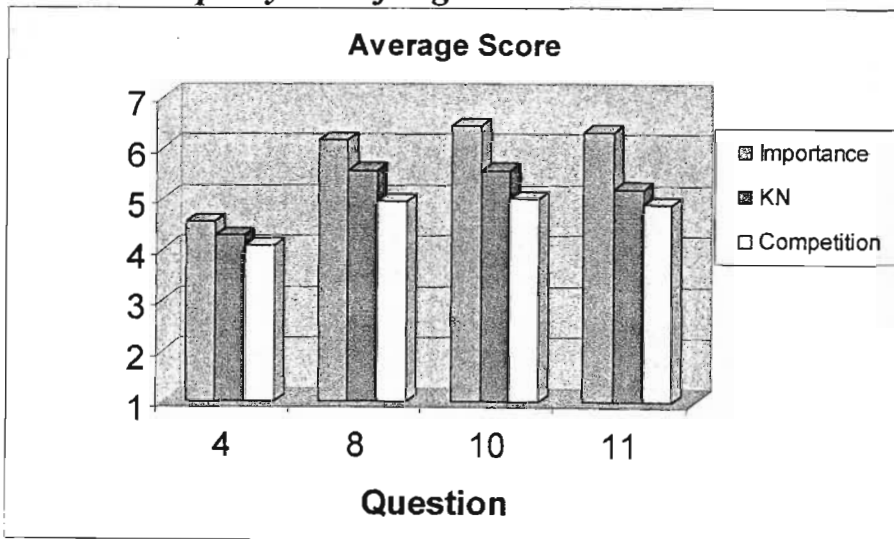


APPENDIX F – DIVISIONAL RESULTS: SEAFREIGHT

Assurance – Seafreight Division

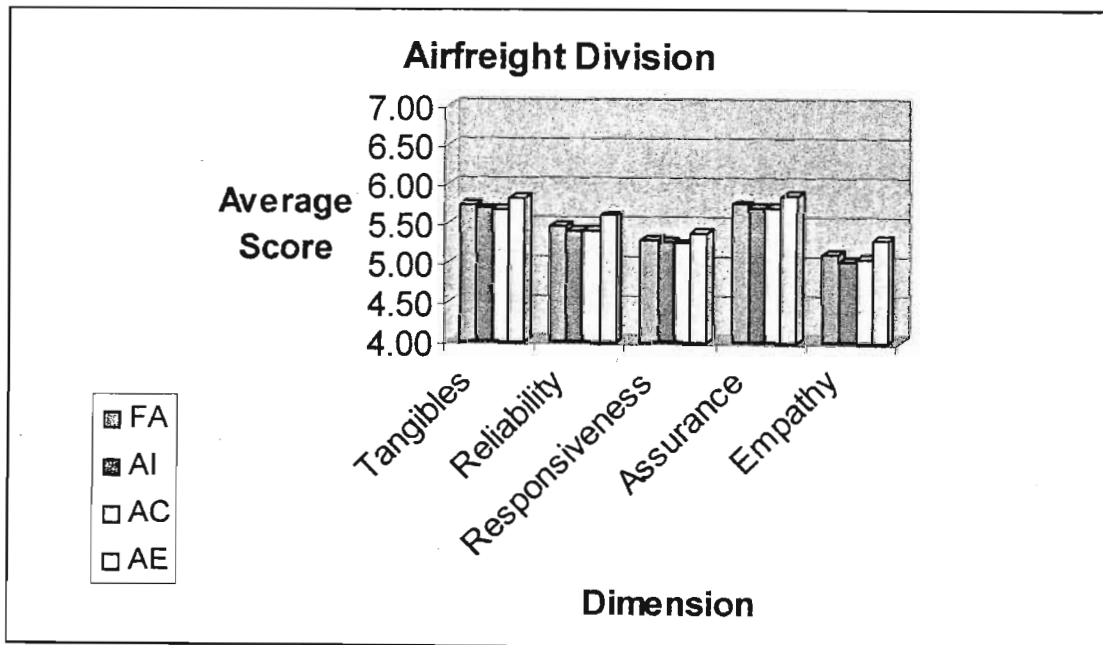
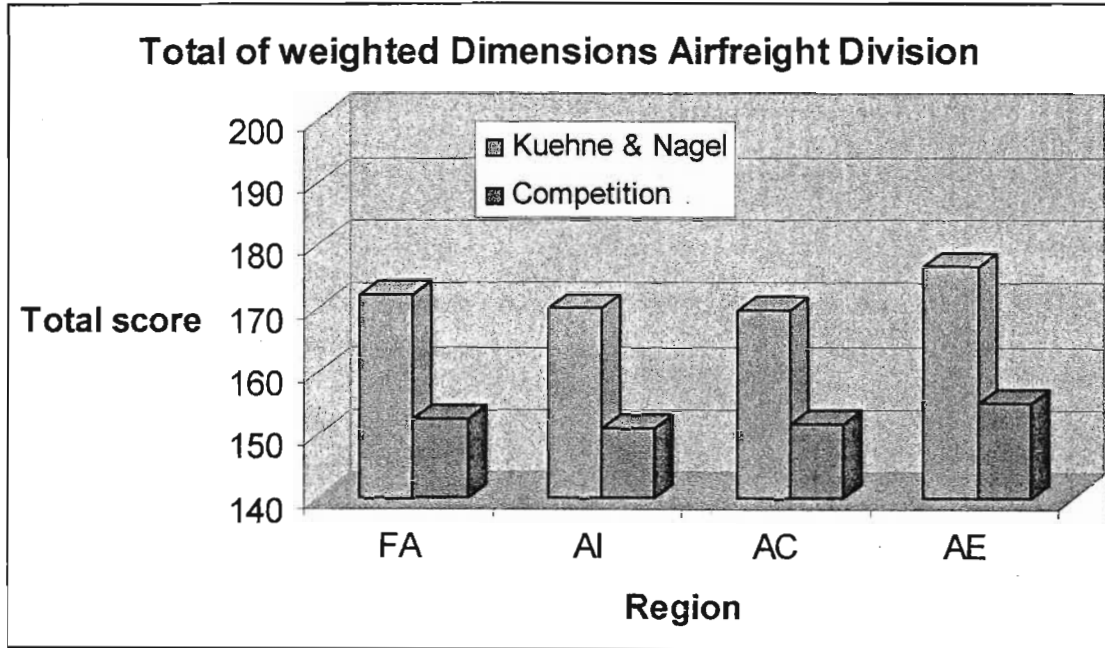


Empathy – Seafreight Division



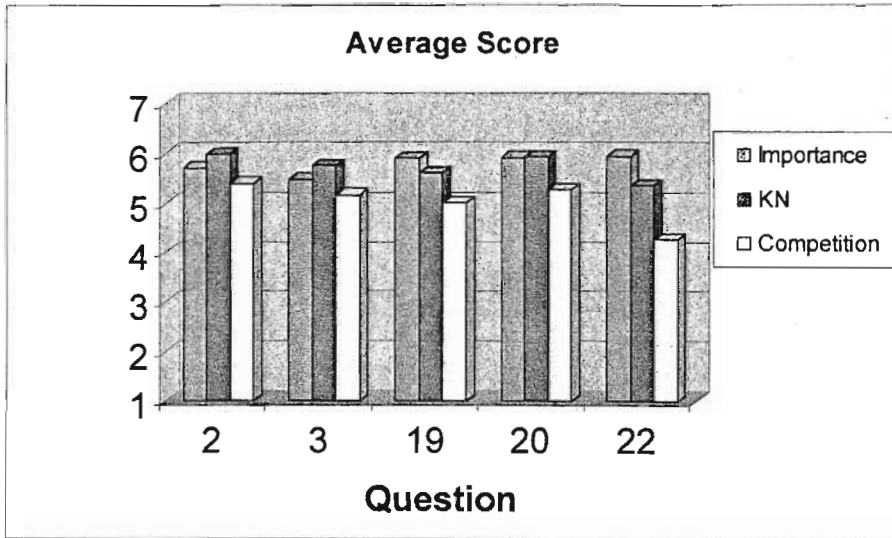
APPENDIX G – DIVISION RESULTS: AIRFREIGHT

Subdivision: AI = Airfreight Import
 AC = Airfreight Clearing
 AE = Airfreight Export

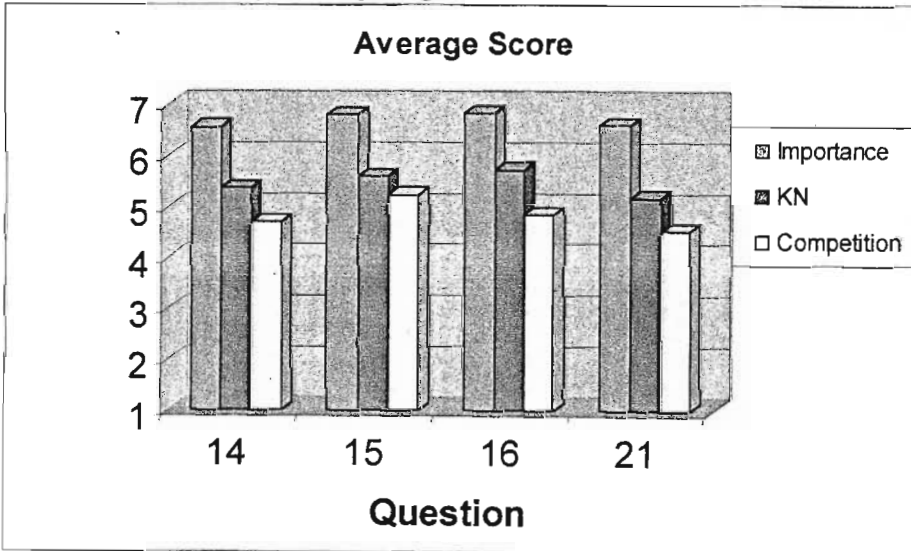


APPENDIX G – DIVISION RESULTS: AIRFREIGHT

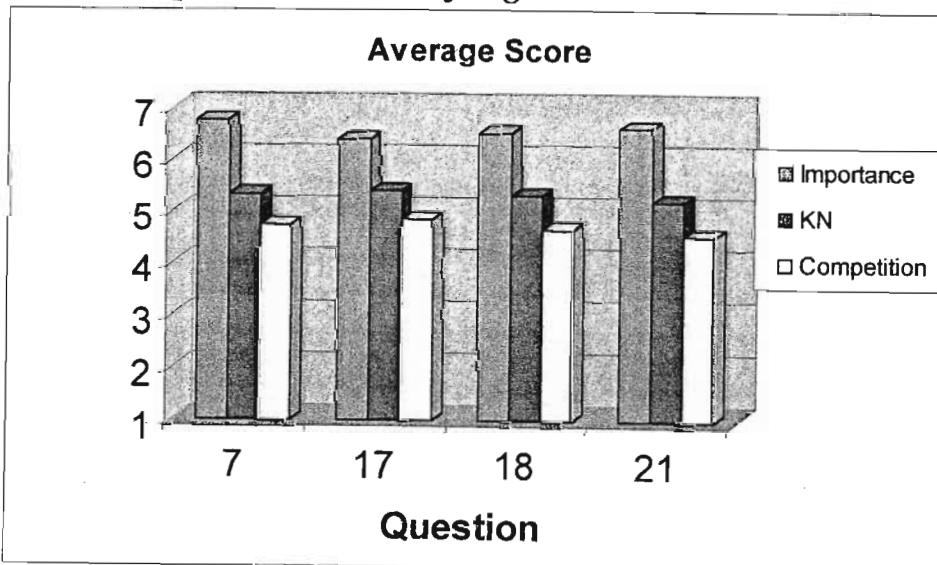
Tangibles – Airfreight Division



Reliability – Airfreight Division

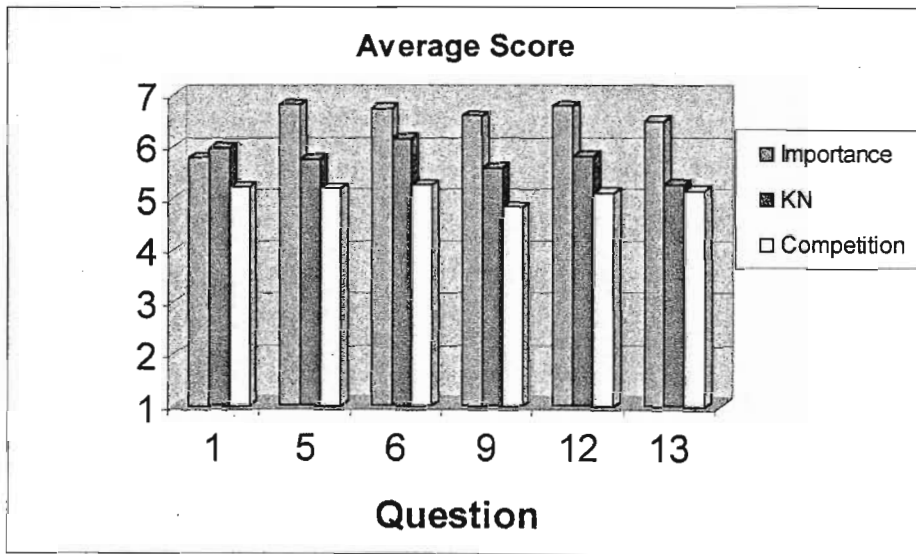


Responsiveness – Airfreight Division

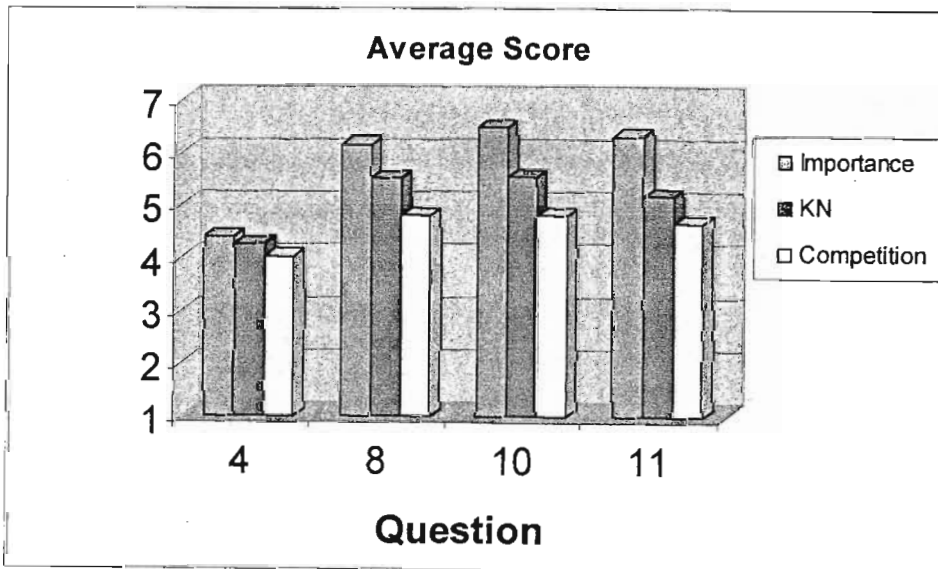


APPENDIX G – DIVISION RESULTS: AIRFREIGHT

Assurance – Airfreight Division

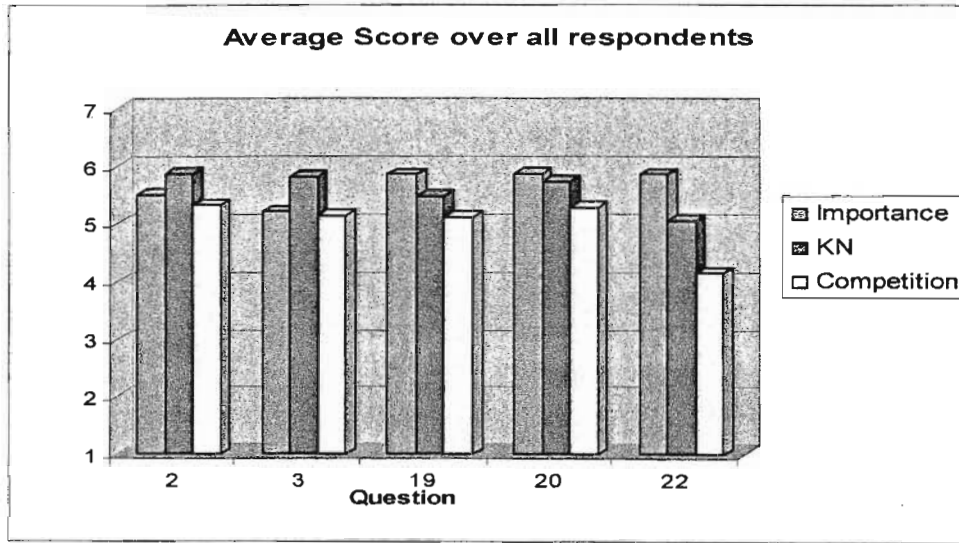


Empathy – Airfreight Division

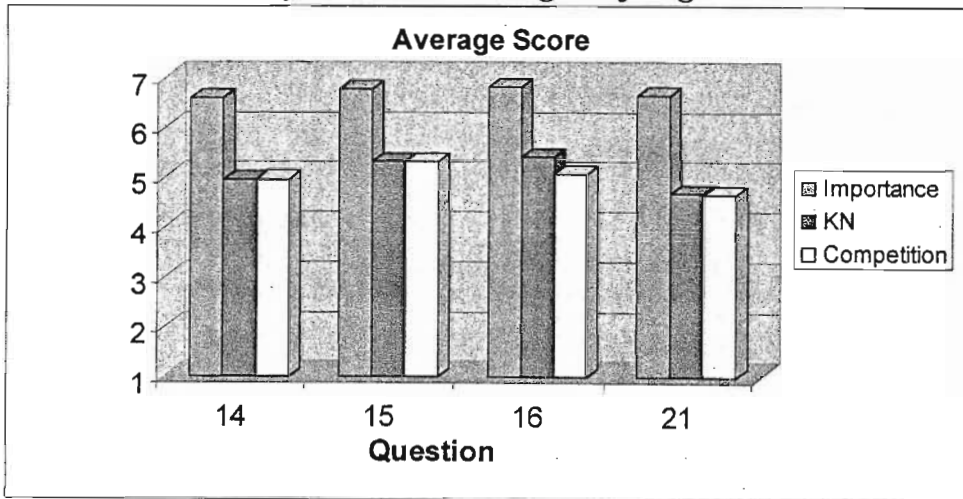


APPENDIX H – RESULTS JOHANNESBURG SEAFREIGHT

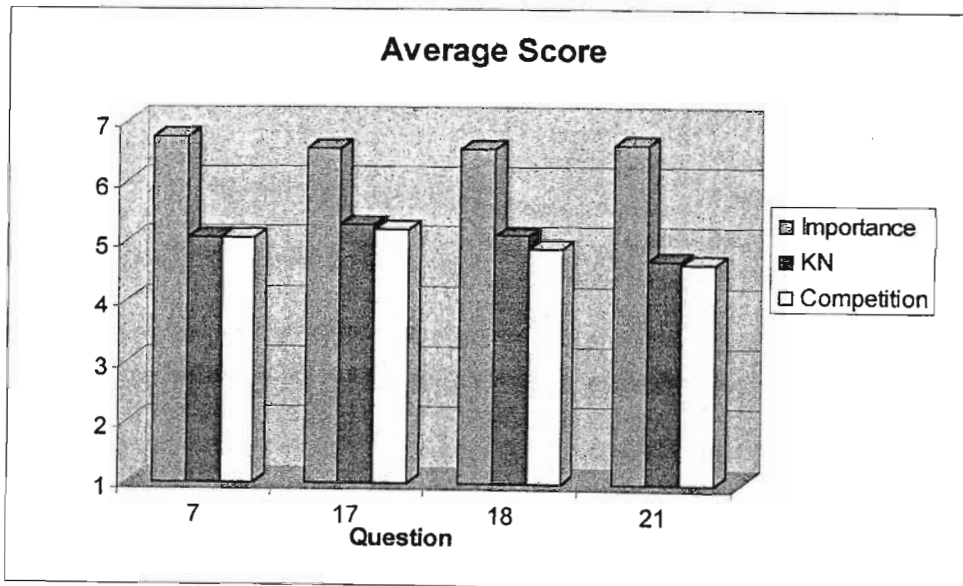
Tangibles – Johannesburg Seafreight



Reliability - Johannesburg Seafreight

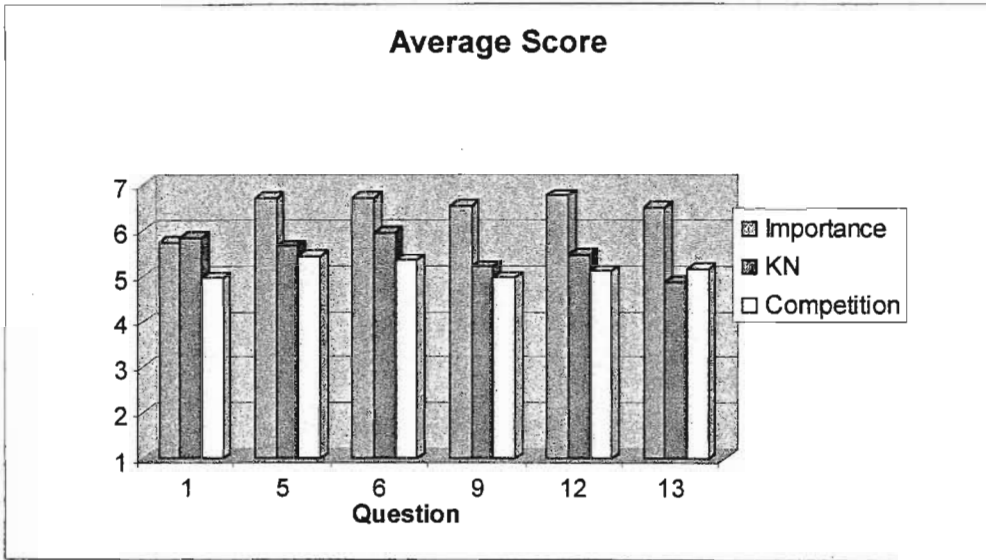


Responsiveness - Johannesburg Seafreight

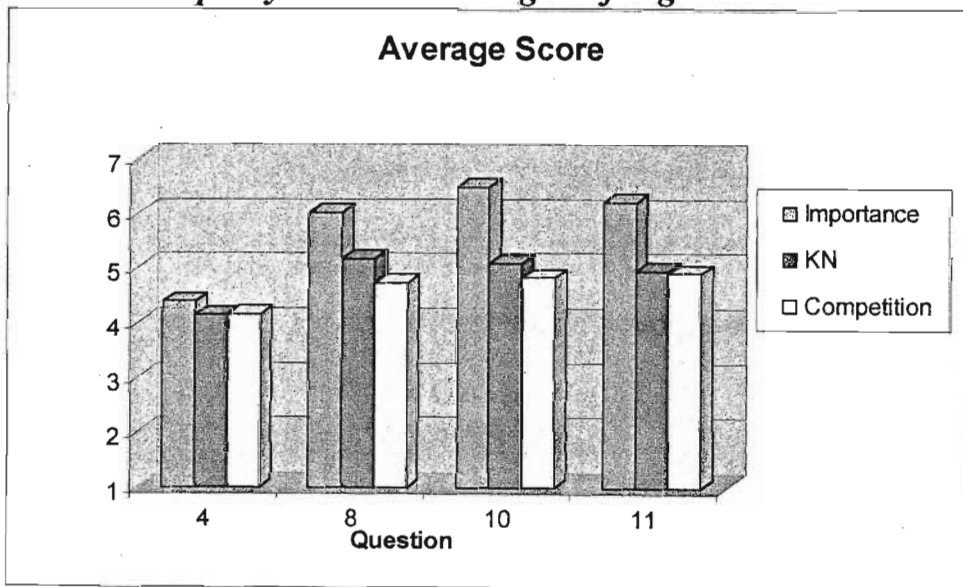


APPENDIX H – RESULTS JOHANNESBURG SEAFREIGHT

Assurance - Johannesburg Seafreight

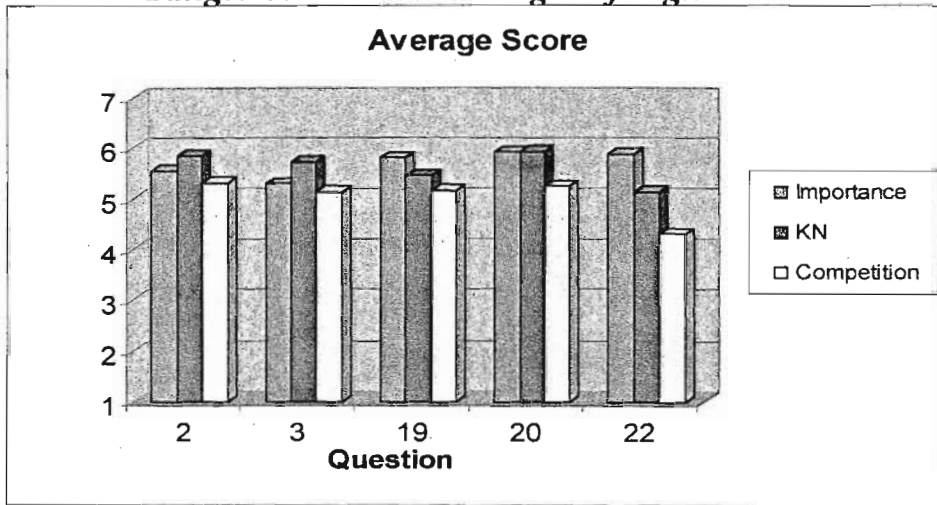


Empathy - Johannesburg Seafreight

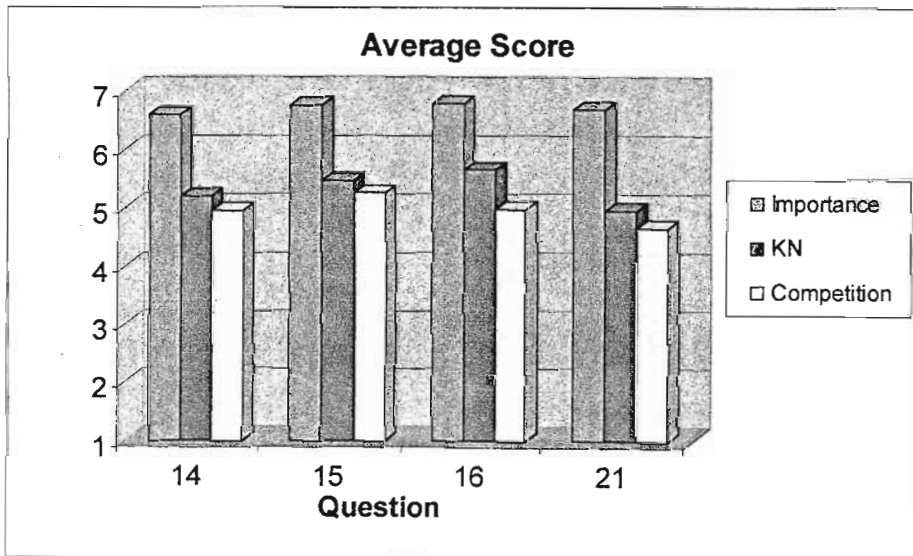


APPENDIX I – RESULT JOHANNESBURG AIRFREIGHT.

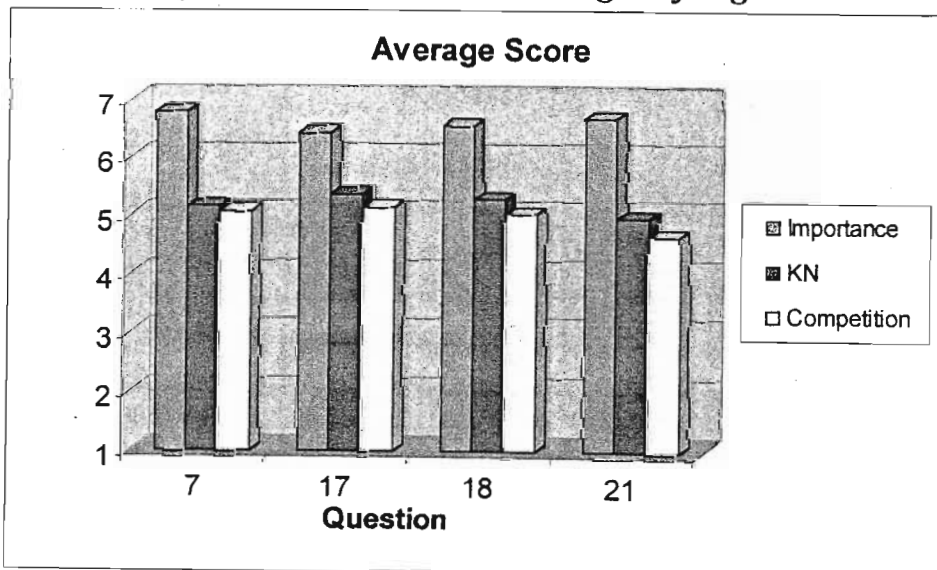
Tangibles - Johannesburg Airfreight



Reliability - Johannesbu

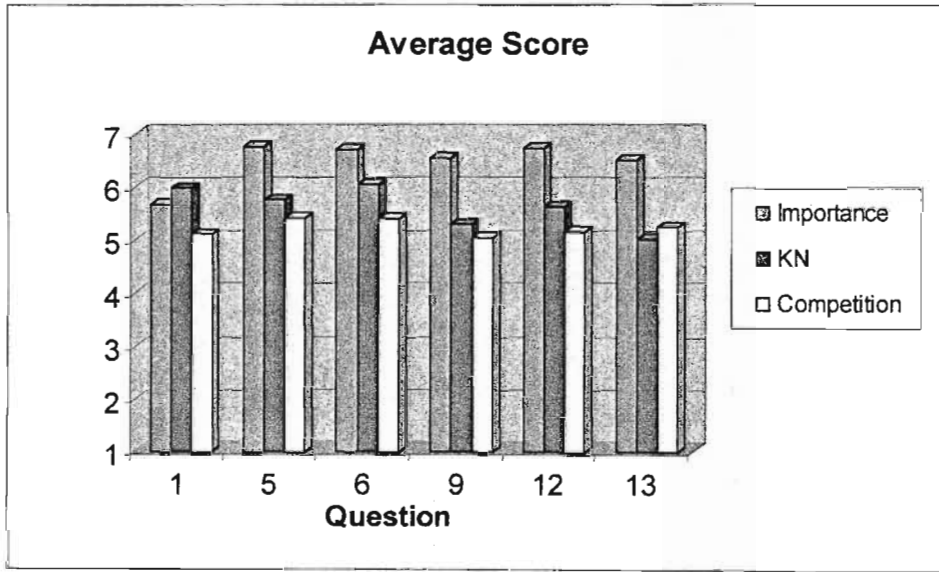


Responsiveness - Johannesburg Airfreight

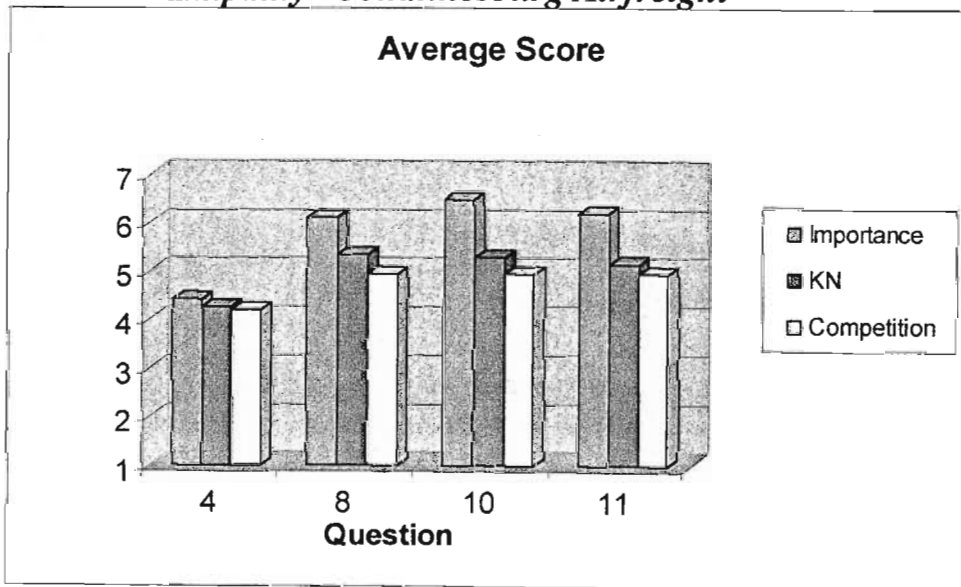


APPENDIX I – RESULT JOHANNESBURG AIRFREIGHT

Assurance - Johannesburg Airfreight

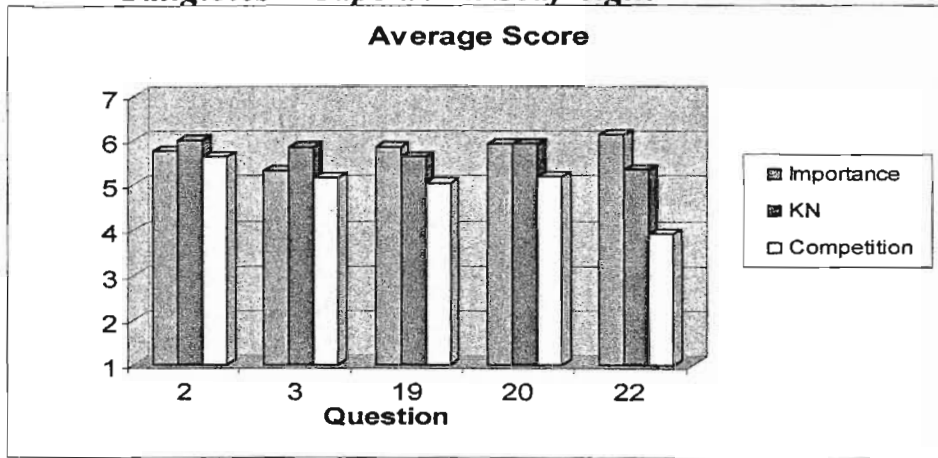


Empathy - Johannesburg Airfreight

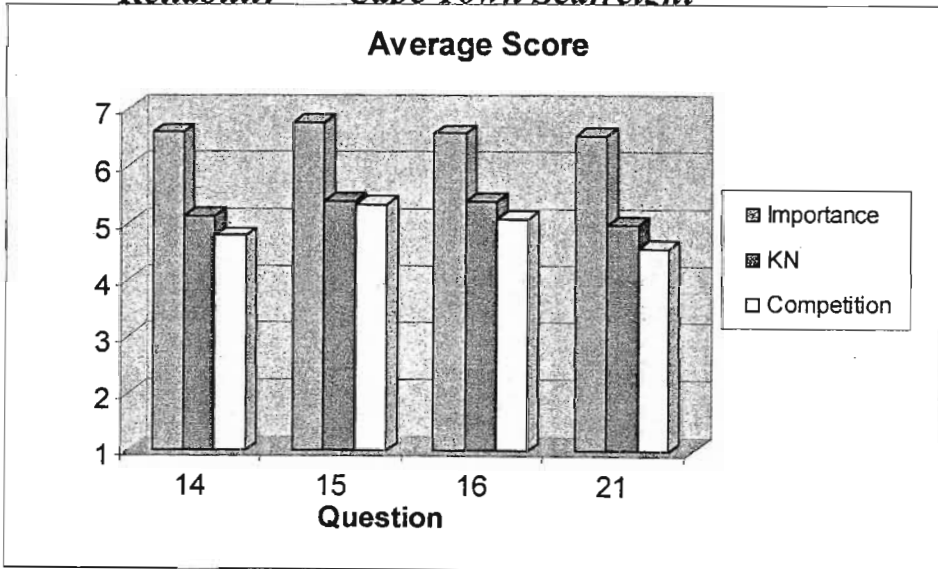


APPENDIX J – RESULTS CAPETOWN SEAFREIGHT

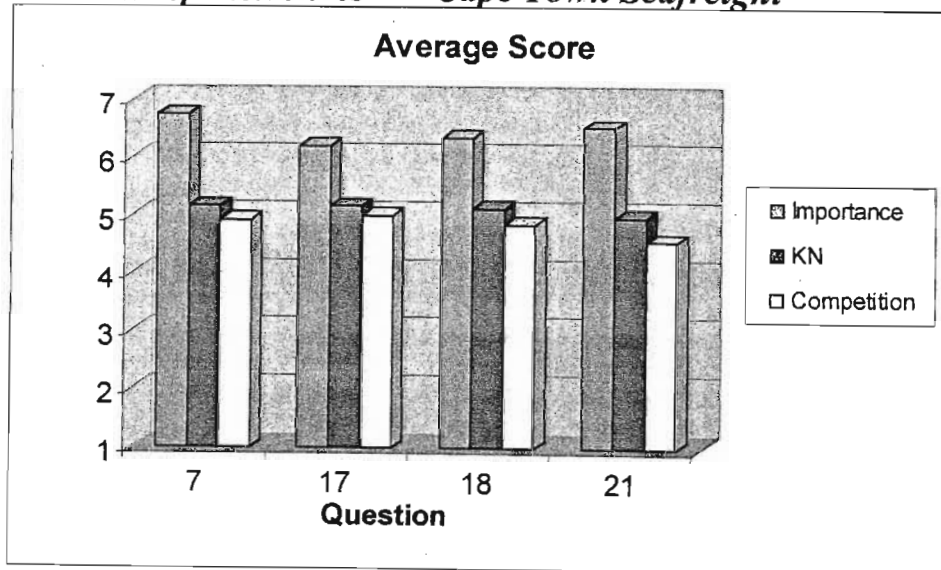
Tangibles – Cape Town Seafreight



Reliability – Cape Town Seafreight

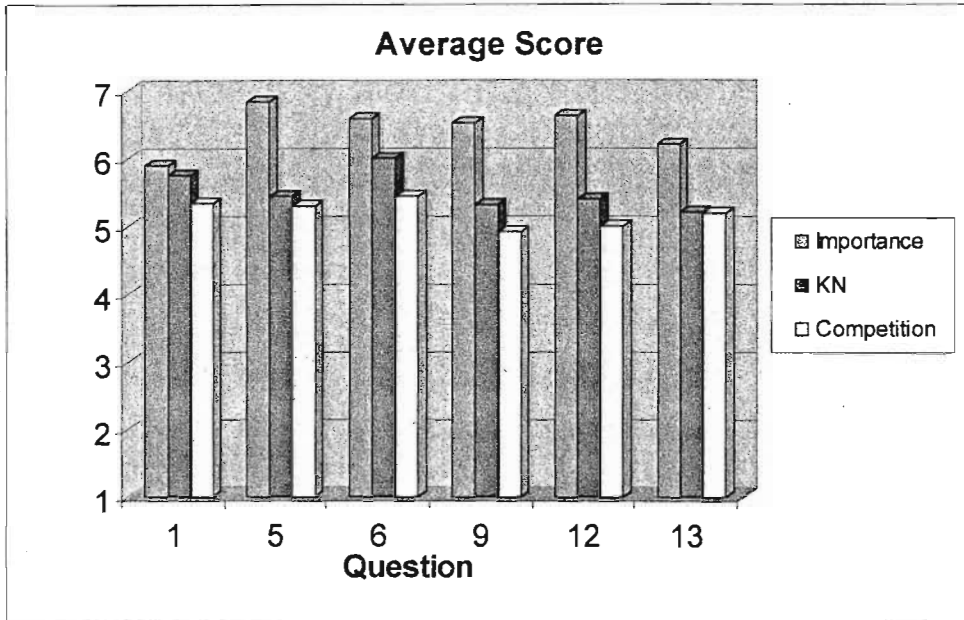


Responsiveness – Cape Town Seafreight

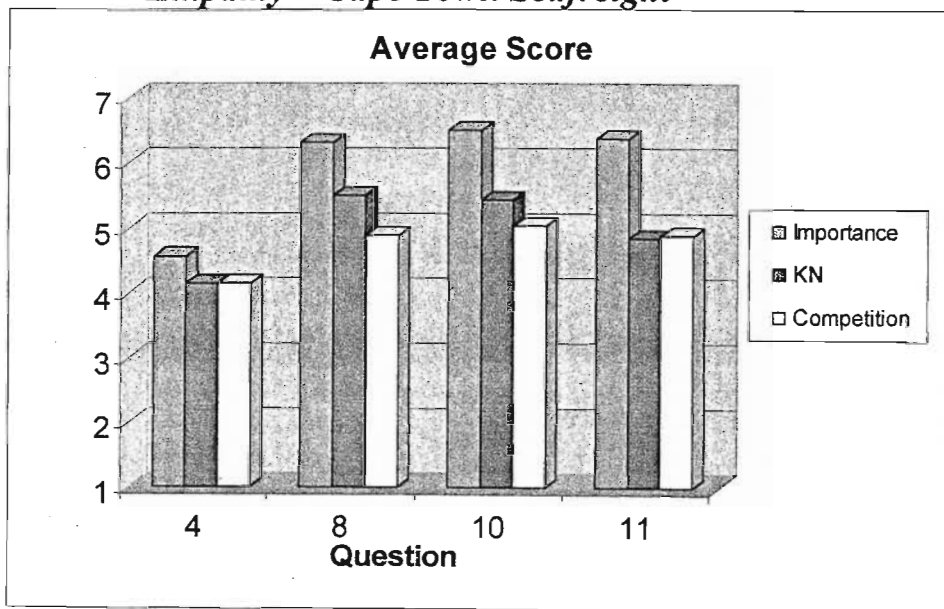


APPENDIX J – RESULTS CAPETOWN SEAFREIGHT

Assurance – Cape Town Seafreight

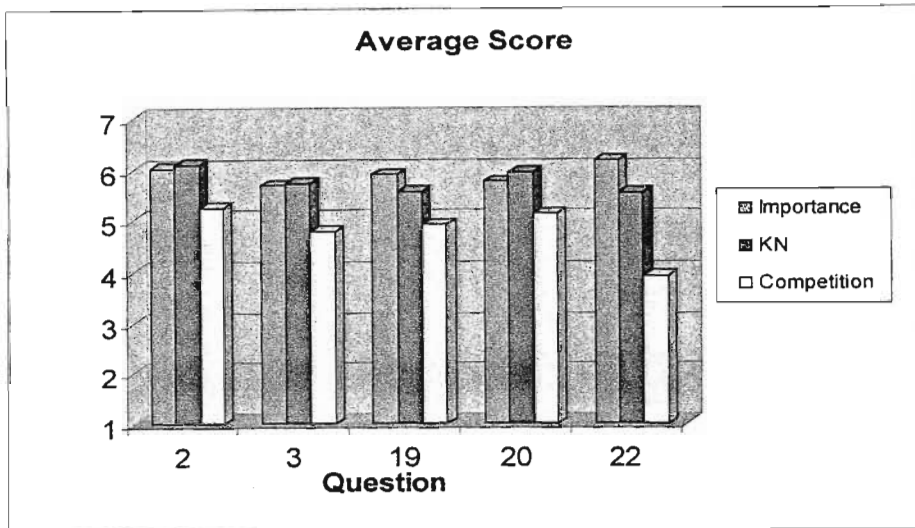


Empathy – Cape Town Seafreight

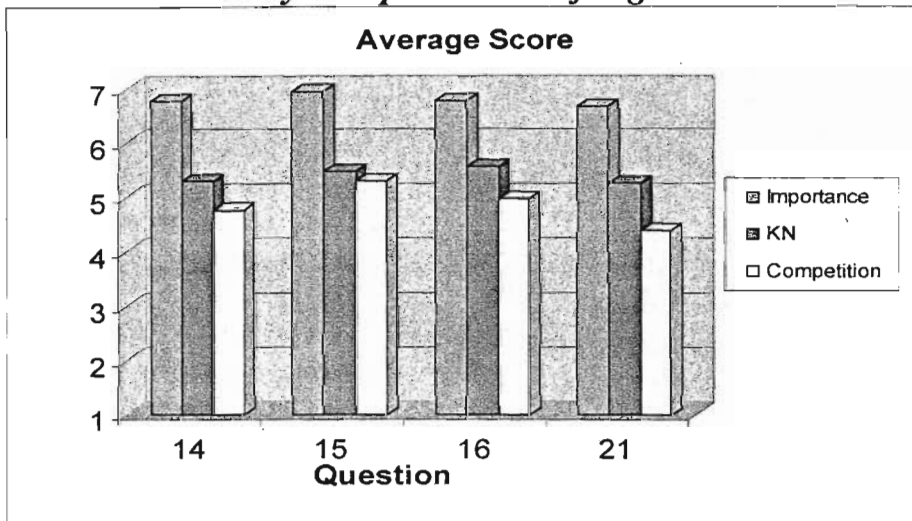


APPENDIX K – RESULTS CAPE TOWN AIRFREIGHT

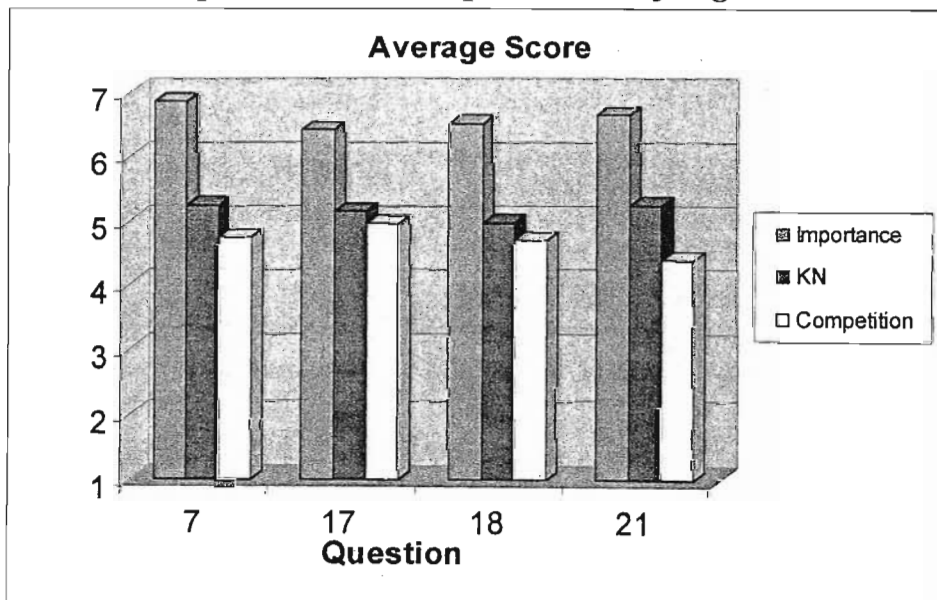
Tangibles – Cape Town Airfreight



Reliability – Cape Town Airfreight

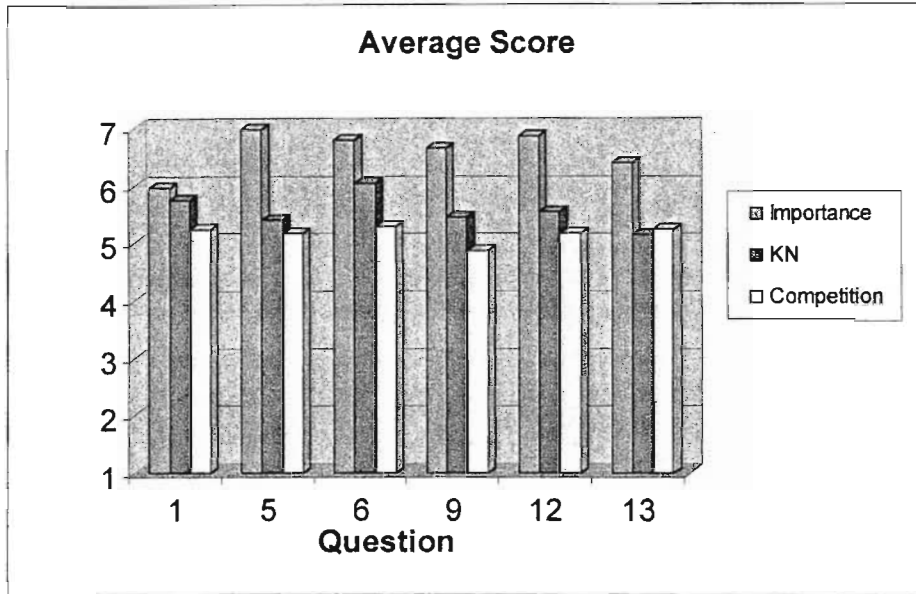


Responsiveness – Cape Town Airfreight

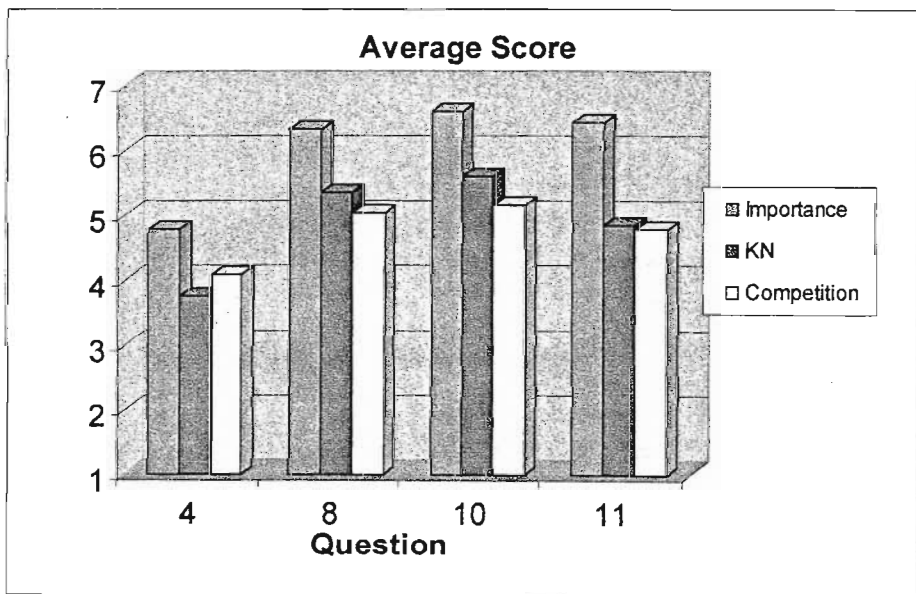


APPENDIX K – RESULTS CAPE TOWN AIRFREIGHT

Assurance – Cape Town Airfreight

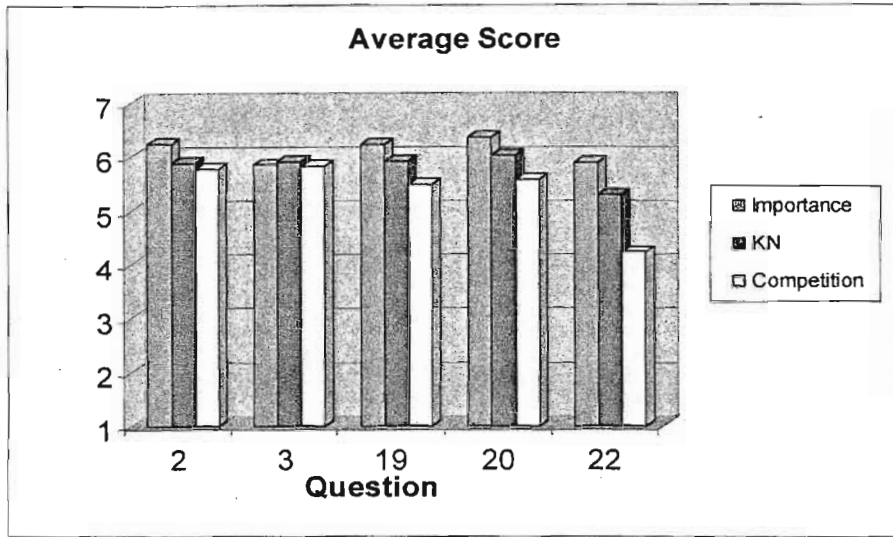


Empathy – Cape Town Airfreight

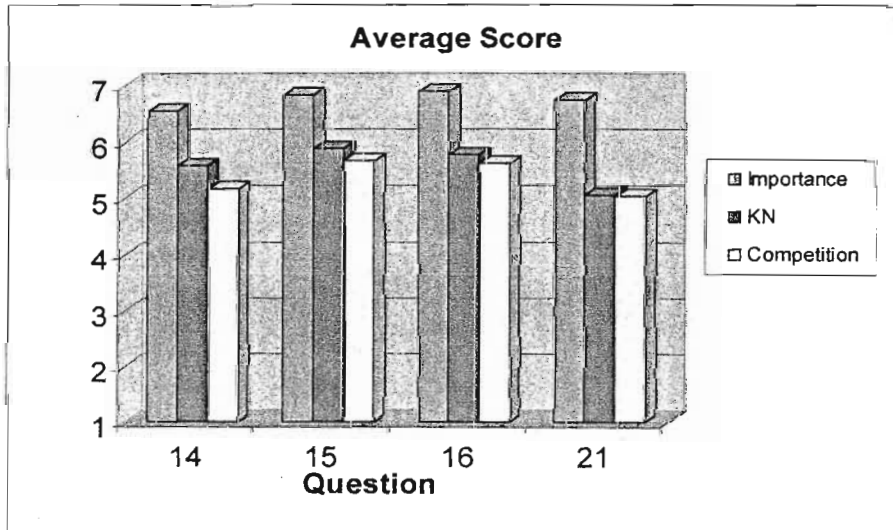


APPENDIX L – RESULTS DURBAN SEAFREIGHT

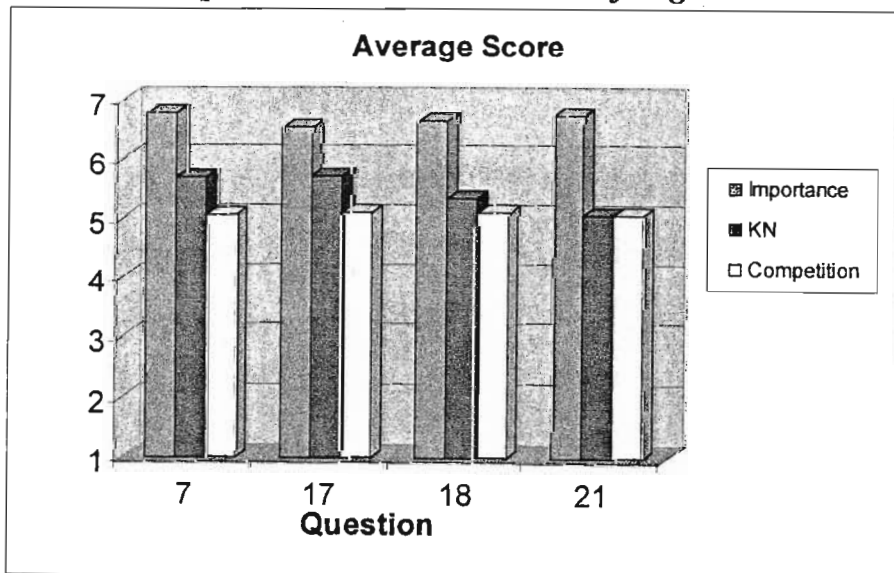
Tangibles - Durban Seafreight



Reliability - Durban Seafreight

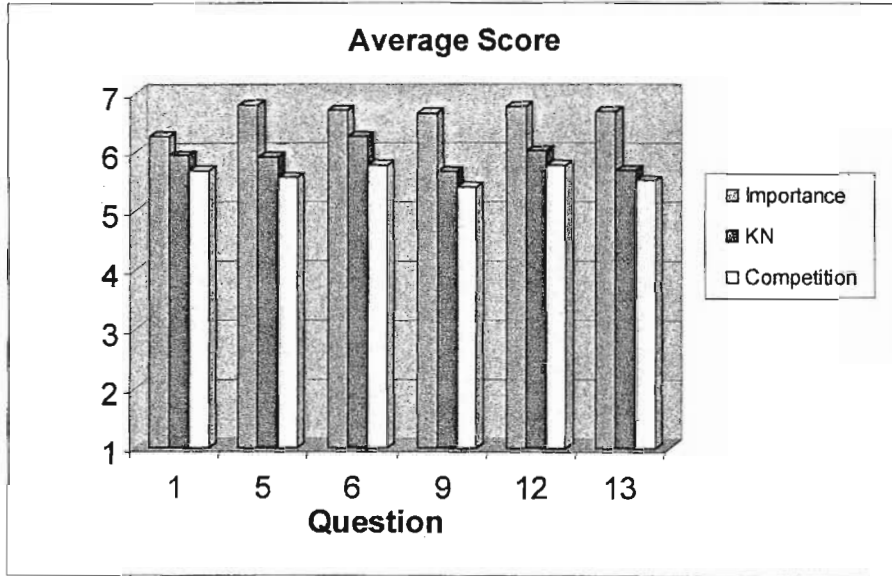


Responsiveness - Durban Seafreight

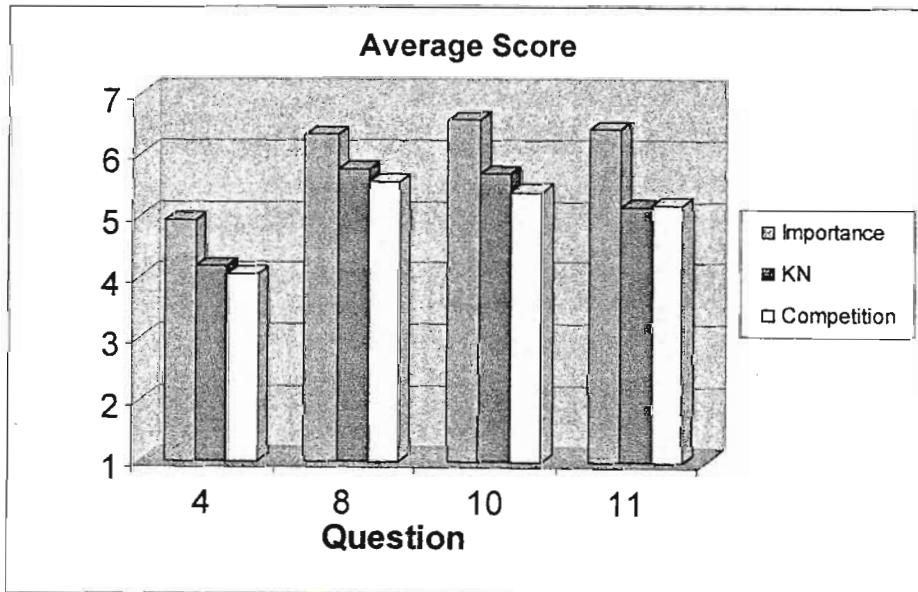


APPENDIX L – RESULTS DURBAN SEAFREIGHT

Assurance - Durban Seafreight

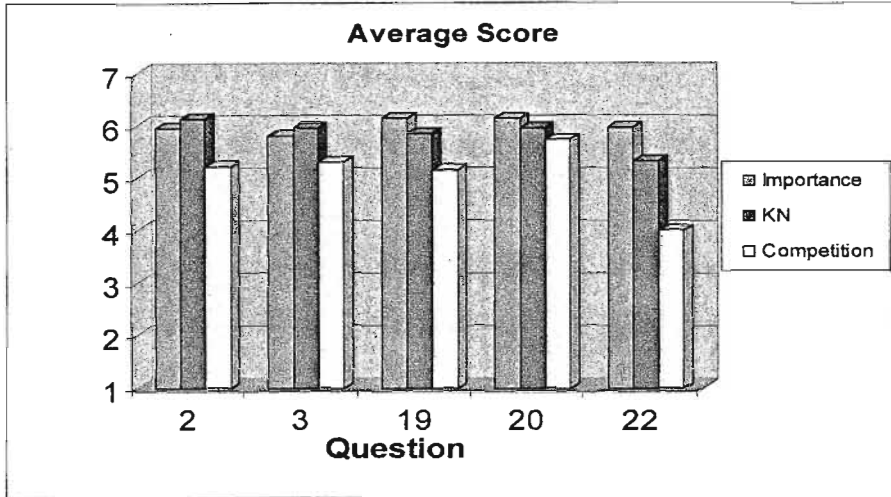


Empathy - Durban Seafreight

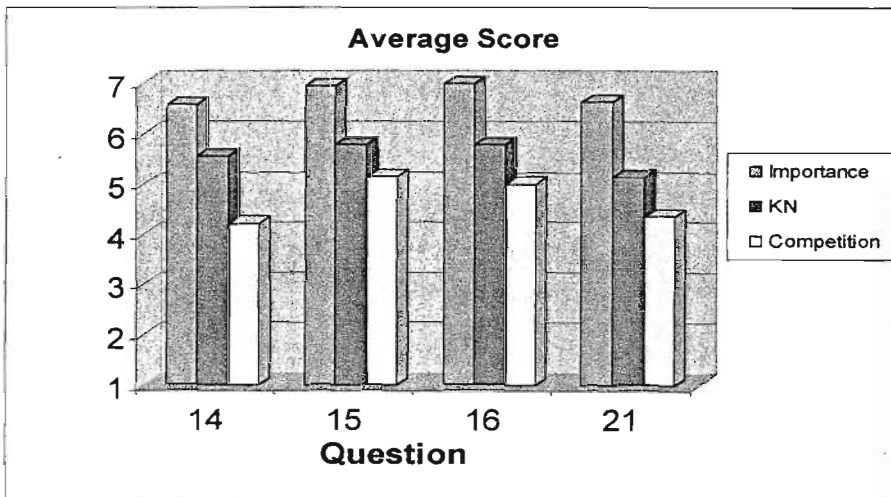


APPENDIX M – RESULTS DURBAN AIRFREIGHT

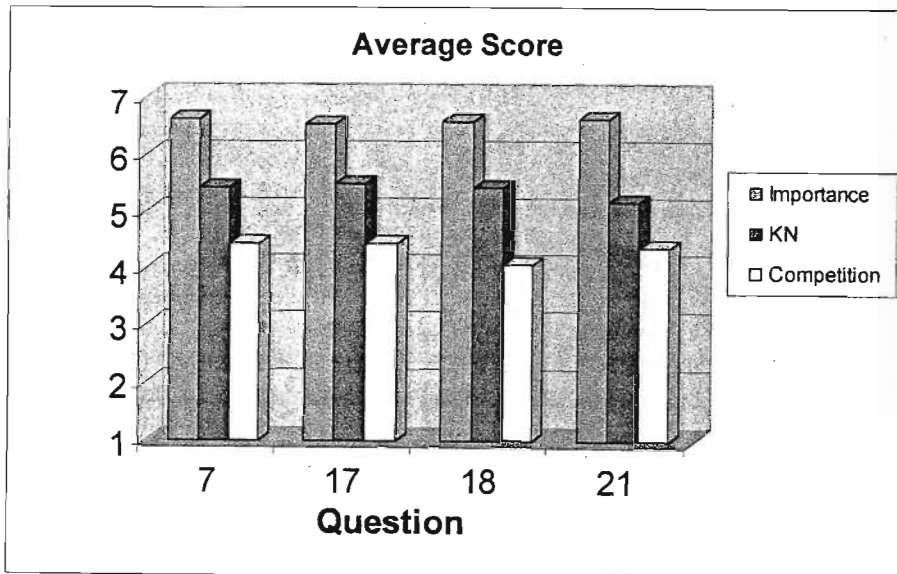
Tangibles – Durban Airfreight



Reliability – Durban Airfreight

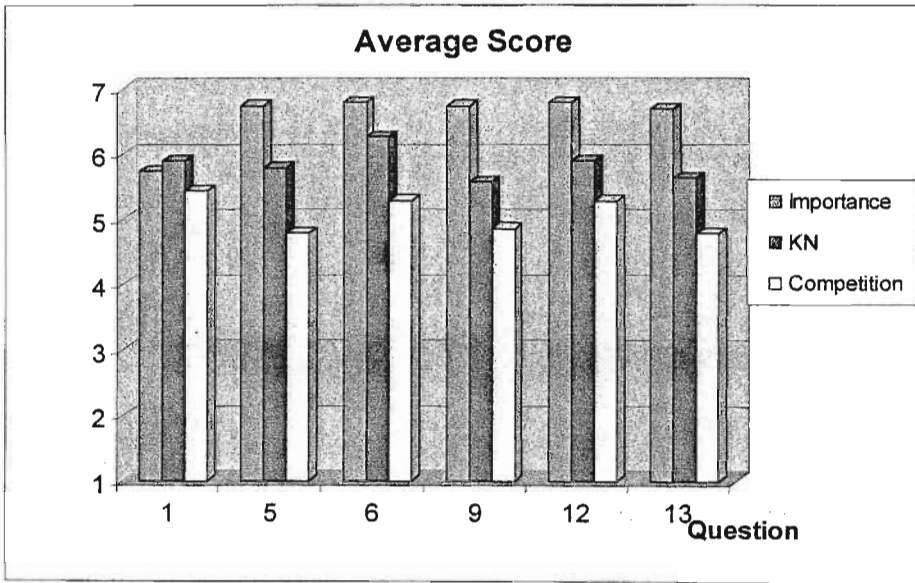


Responsiveness – Durban Airfreight

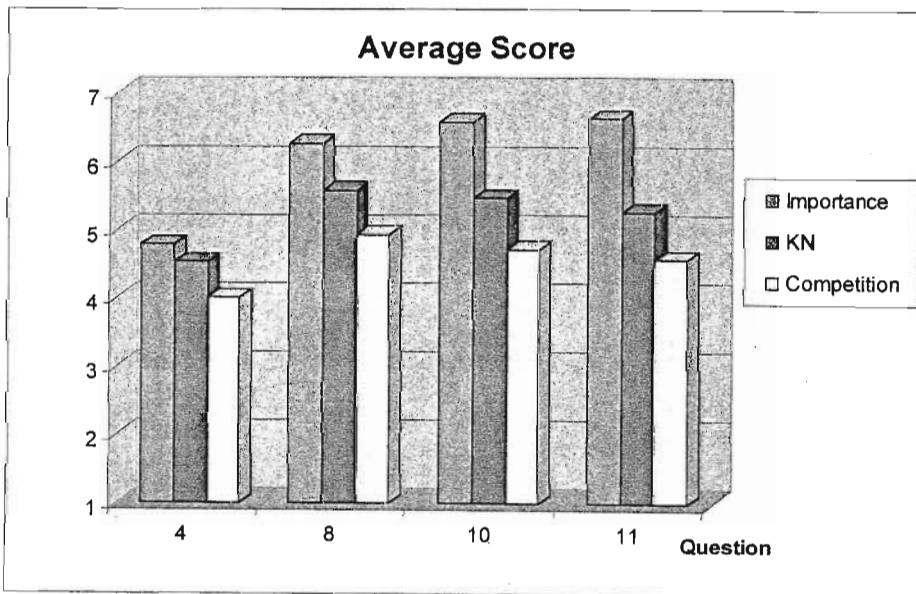


APPENDIX M – RESULTS DURBAN AIRFREIGHT

Assurance – Durban Airfreight

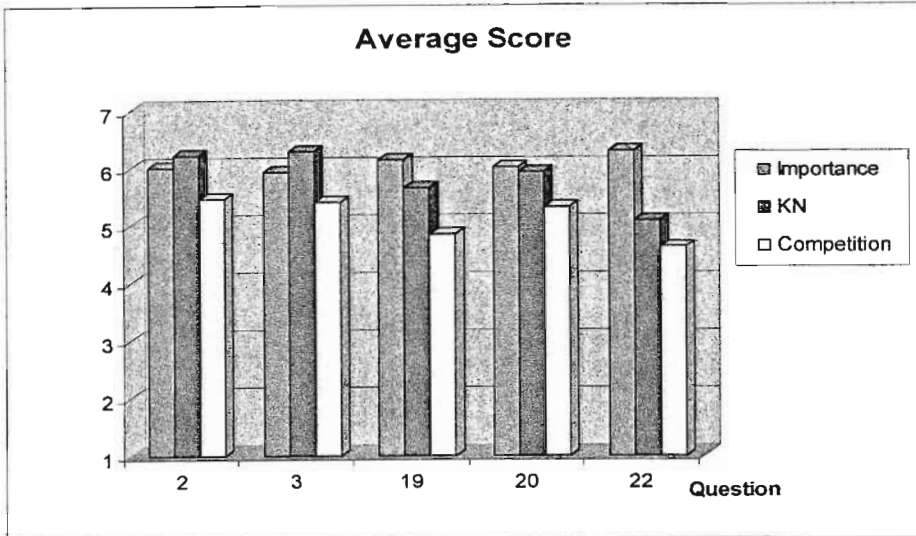


Empathy – Durban Airfreight

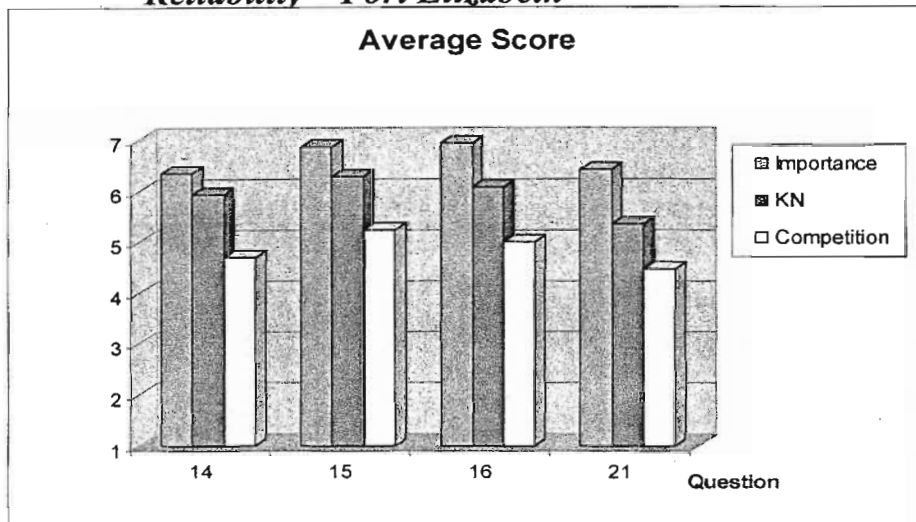


APPENDIX N – RESULTS PORT ELIZABETH

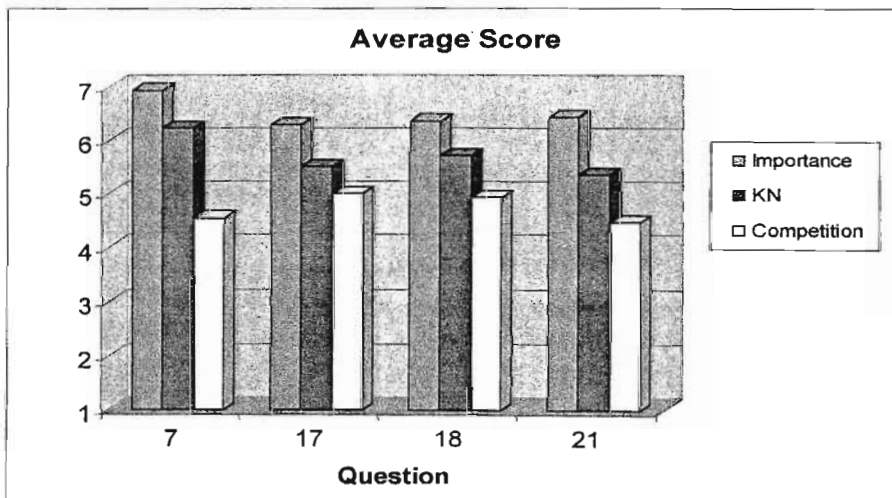
Tangibles – Port Elizabeth



Reliability – Port Elizabeth

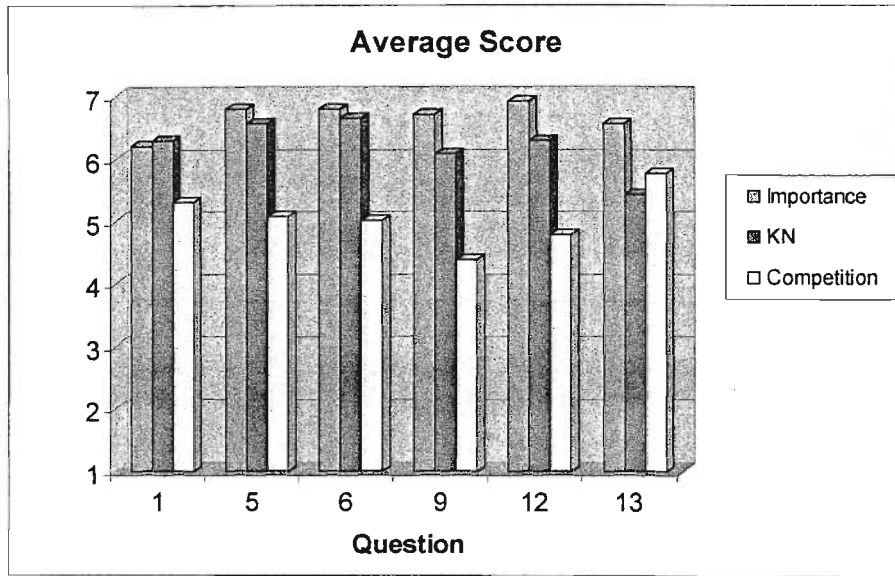


Responsiveness – Port Elizabeth

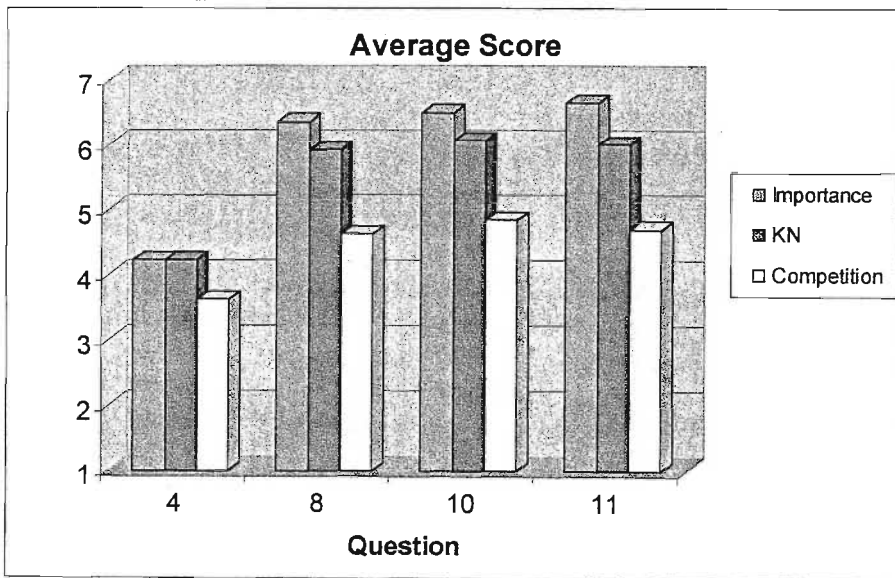


APPENDIX N – RESULTS PORT ELIZABETH

Assurance – Port Elizabeth

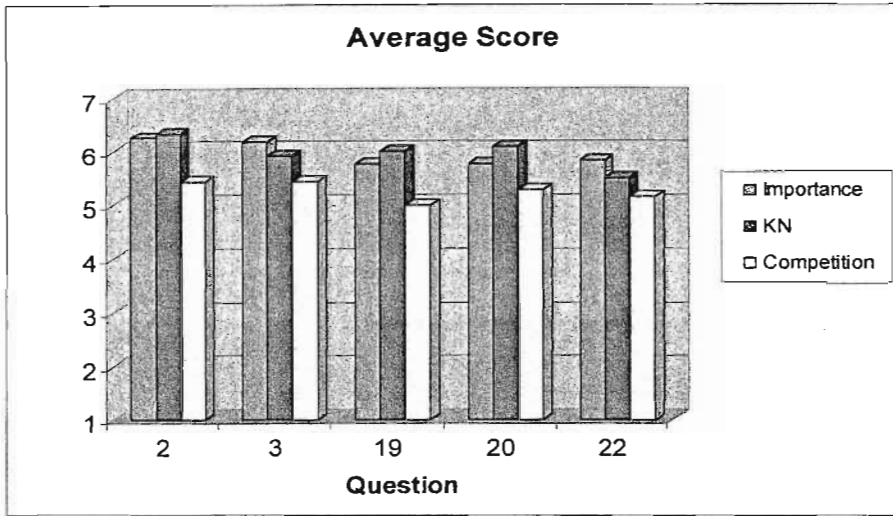


Empathy – Port Elizabeth

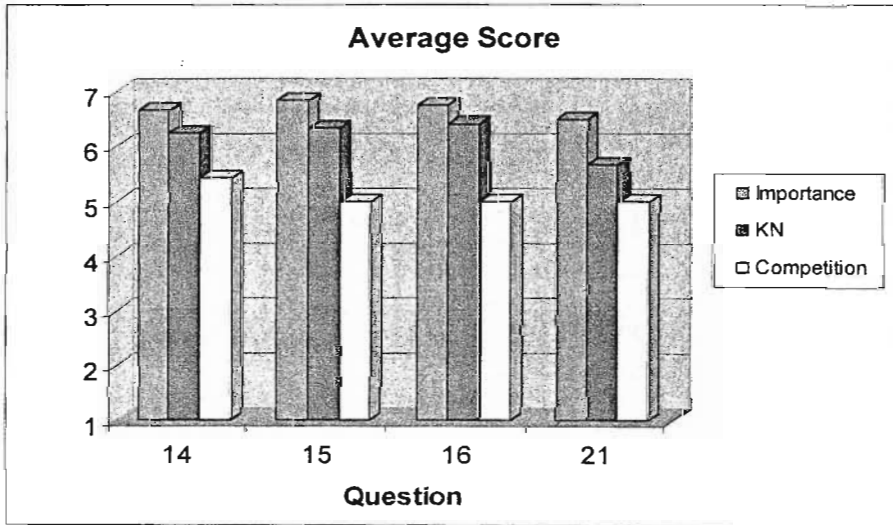


APPENDIX O – RESULTS EAST LONDON

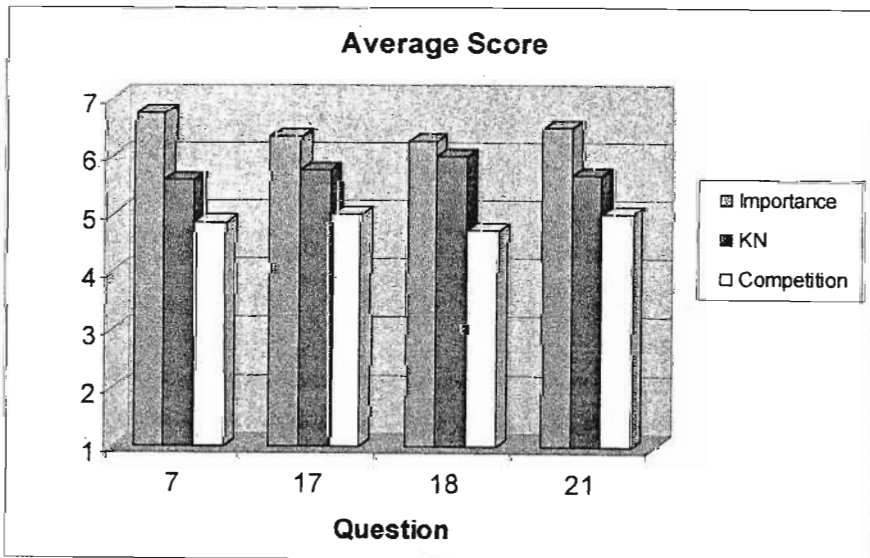
Tangibles – East London



Reliability – East London

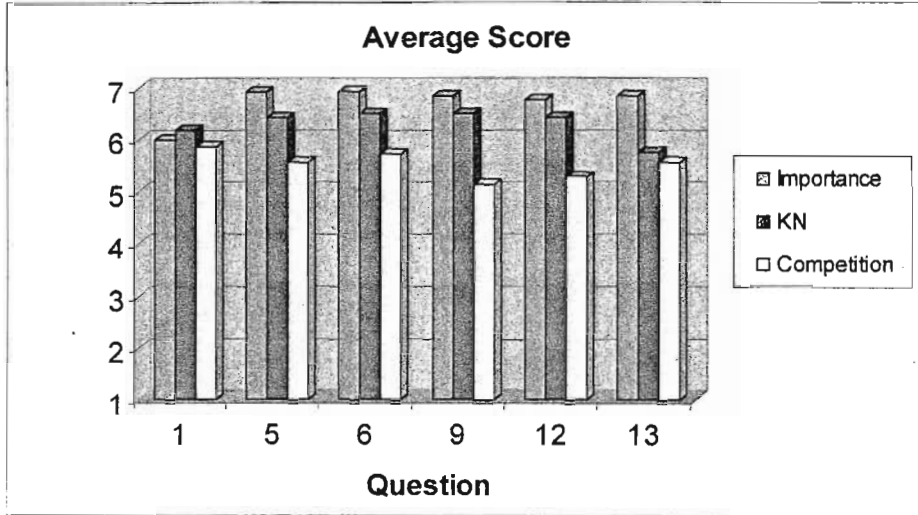


Responsiveness – East London

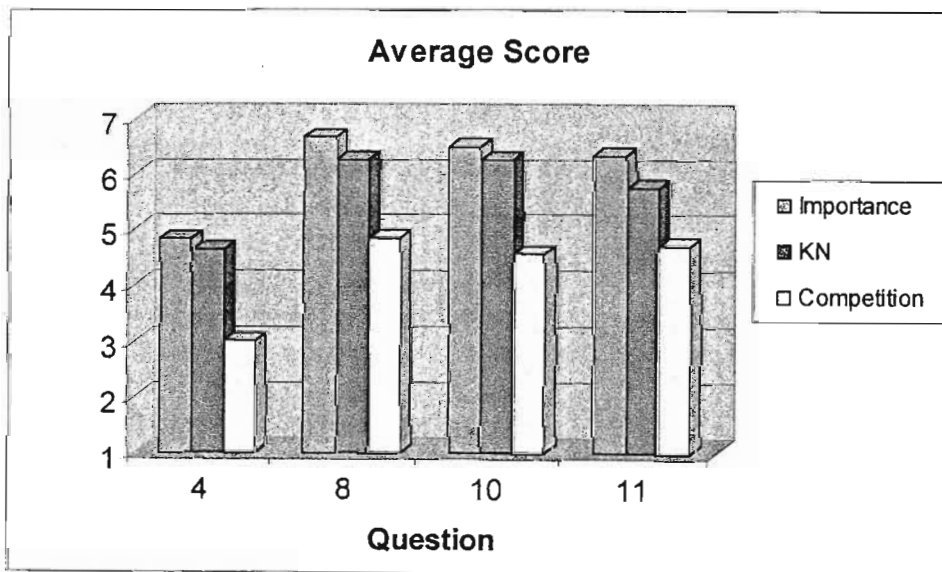


APPENDIX O – RESULTS EAST LONDON

Assurance – East London

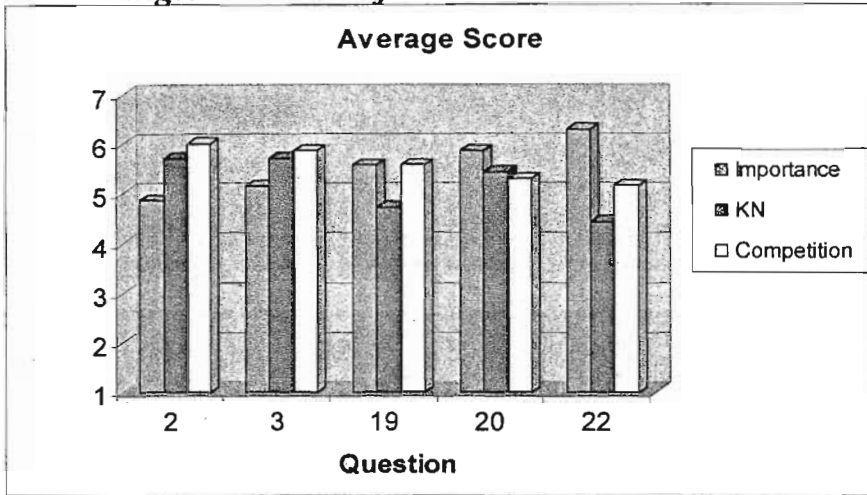


Empathy – East London

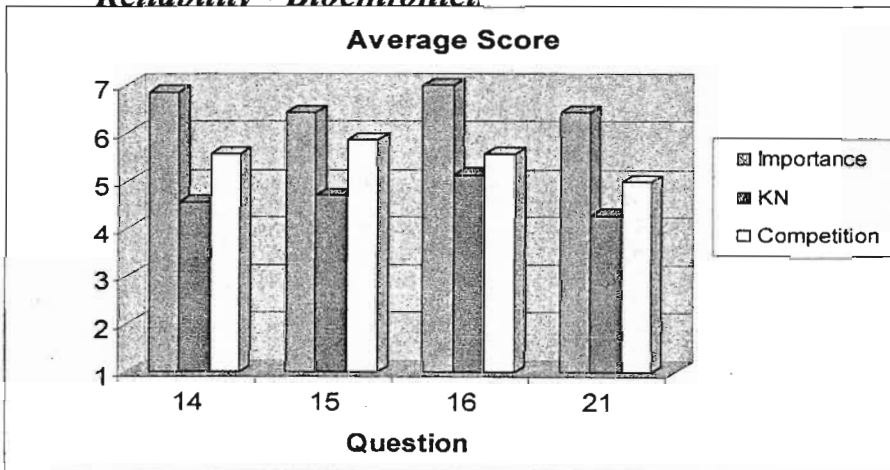


APPENDIX P – RESULTS BLOEMFONTEIN

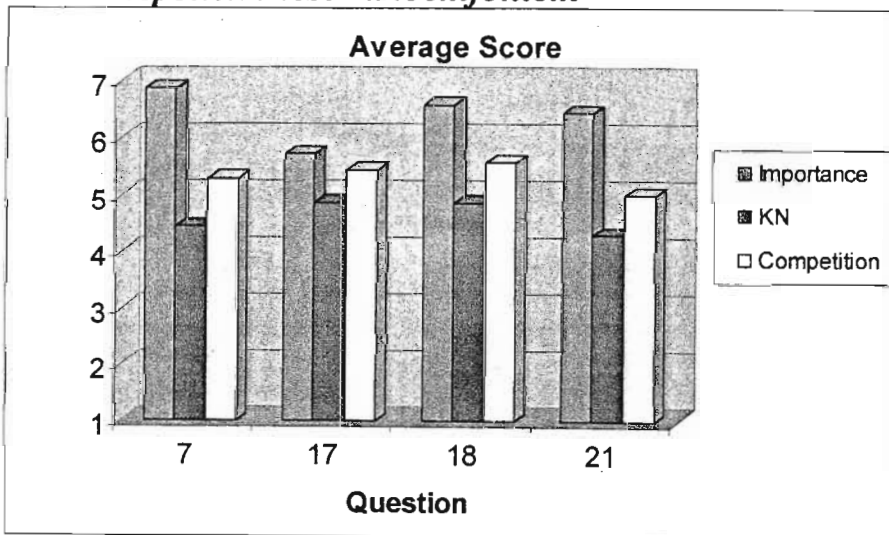
Tangibles - Bloemfontein



Reliability - Bloemfontei

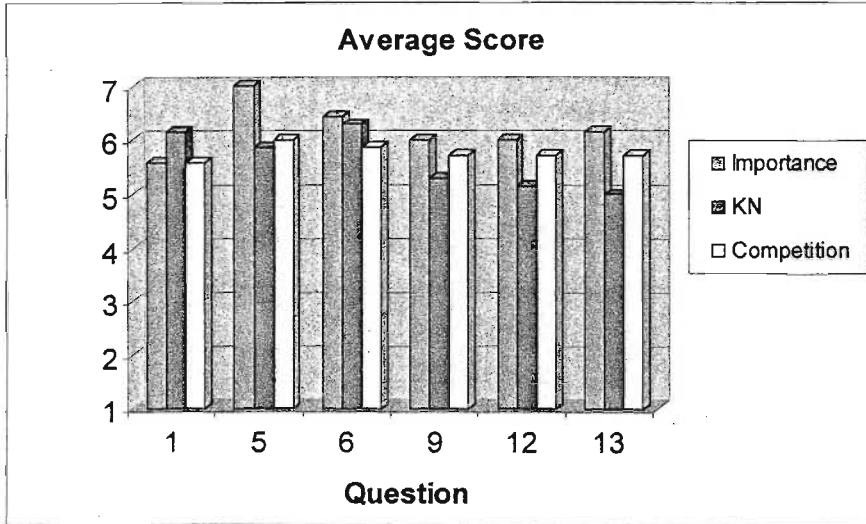


Responsiveness - Bloemfontein

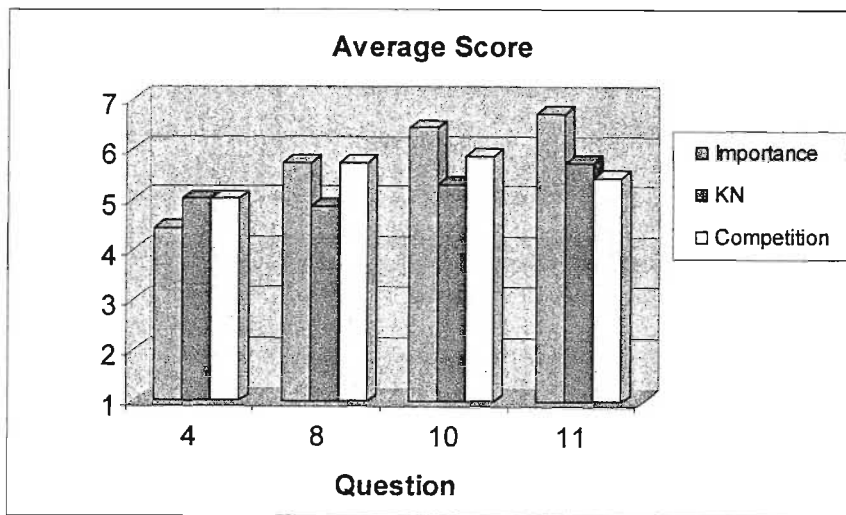


APPENDIX P – RESULTS BLOEMFONTEIN

Assurance - Bloemfontein

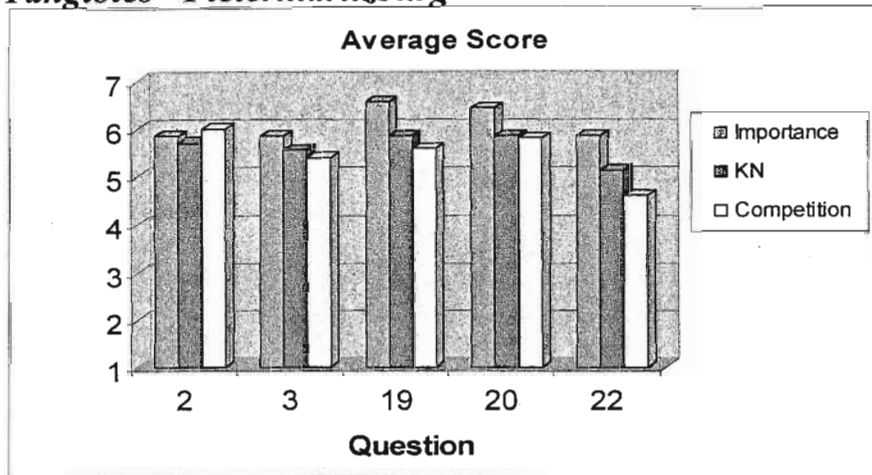


Empathy - Bloemfontein

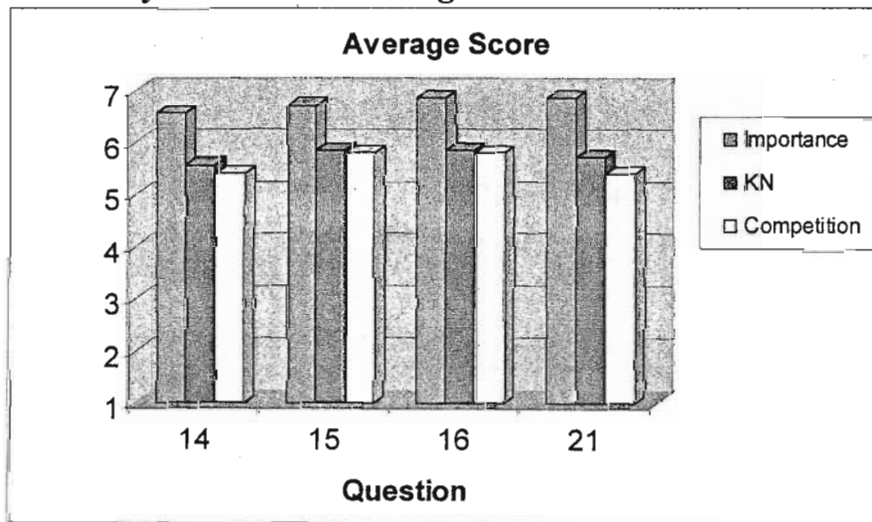


APPENDIX Q – RESULTS PIETERMARITZBURG

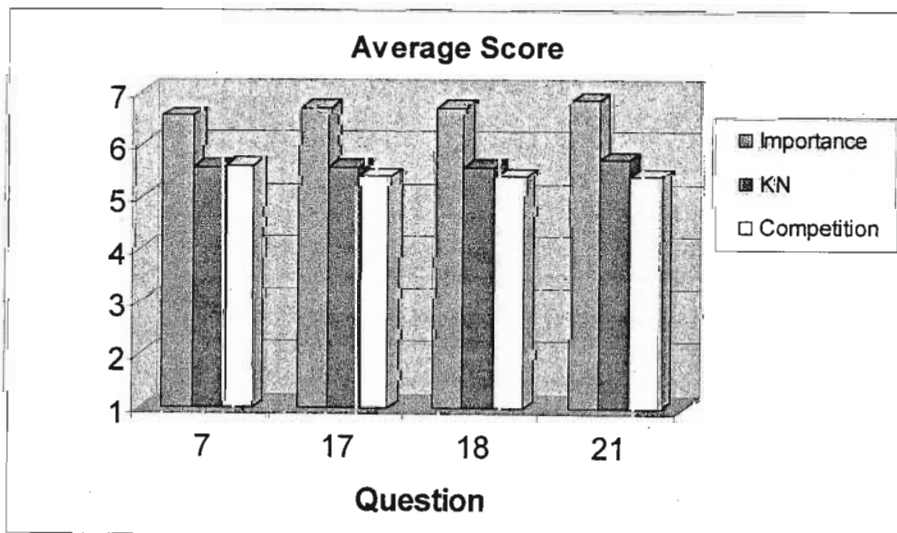
Tangibles - Pietermaritzburg



Reliability - Pietermaritzburg

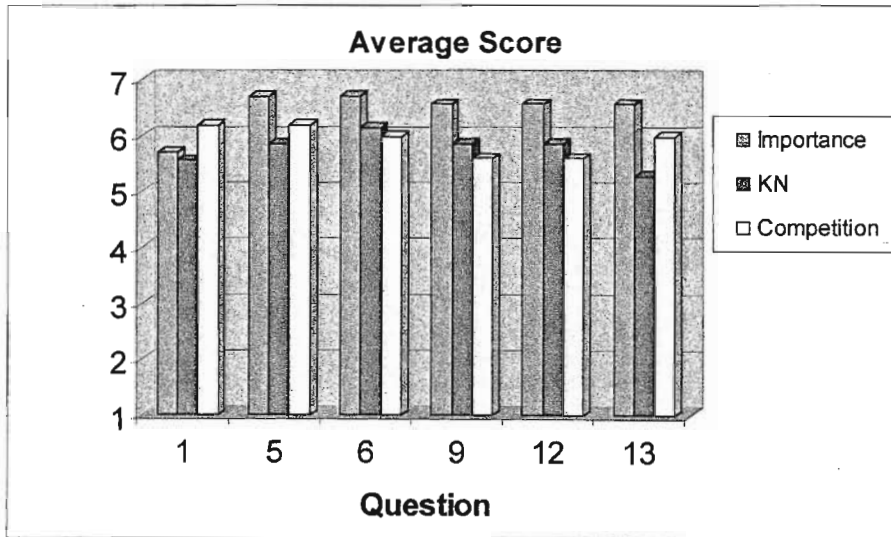


Responsiveness - Pietermaritzburg

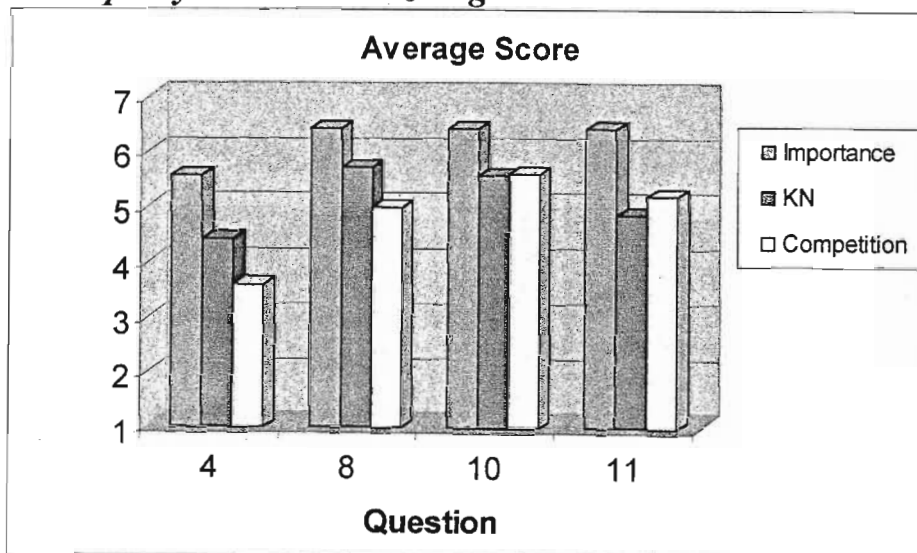


APPENDIX Q – RESULTS PIETERMARITZBURG

Assurance - Pietermaritzburg



Empathy - Pietermaritzburg



APPENDIX R – INDEX TO DIMENSIONS AND QUESTIONS

Tangibles

Physical facilities, equipment, and appearance of personnel

- Q2: Appearance & Courtesy of Contact Personnel (i.e. Sales, Customer Service Staff and Management).
- Q3: Appearance & Courtesy of Operations Staff and Messengers
- Q19: Appearance & Quality of Proposals, Cost Estimates, etc. received from the Service Provider
- Q20: Appearance & Quality of Invoices and supporting documentation
- Q22: IT-capabilities of Service Provider (i.e. Track & Trace, Scanned documents)

Reliability

Ability to perform the promised service dependably and accurately

- Q14: Sense of Urgency at Service Provider
- Q15: Adherence to your instructions
- Q16: Quality of Service received (i.e. Done right the first time)

Responsiveness

Willingness to help customers and provide prompt service

- Q7: Telephone Calls are returned promptly
- Q17: Invoices and supporting Documentation are received without delay
- Q18: Prompt Response to queries and claims
- Q21: Automatic Feedback on possible Problems/Delays

Assurance

Knowledge and courtesy of employees and their ability to inspire trust and confidence

- Q1: Reputation of Service Provider on the market
- Q5: Staff & Management are easily reachable by telephone
- Q6: Staff & Management at the Service Provider are always approachable
- Q9: Feeling that Service Provider has your Best Interest at heart
- Q12: Competence of Staff & Management
- Q13: Competitive Pricing

Empathy

Caring, individualised attention the firm provides its customers

- Q4: Frequency of Visits by Service Provider Representatives to your company
- Q8: You receive individualised Service
- Q10: Service Provider understands your business and your specific requirements
- Q11: Service provided and possible Alternatives are always explained