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IS THERE A RELATIONSHIP BETWEEN TQM PRACTICES AND SERVICE QUALITY IN THE RESTAURANT INDUSTRY?

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A research report submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, partly for the fulfilment of the requirements for the degree of Masters of Science in Engineering.

Johannesburg 2016

Declaration of Originality

I, the undersigned, hereby declare the following, that:

- This is my own unaided work unless specifically referenced as such in the text
- That no work submitted here has previously been published
- That all the information gained herein was whilst enrolled at the University of the Witwatersrand



25 May 2016

Abstract

This dissertation aims to identify whether or not there is clear and tangible evidence to suggest a relationship between the presence of total quality management (TQM) practices and service quality in the restaurant industry. It attempts to investigate if restaurants that show higher levels of service quality do so because they implement quality management practices in some form or another.

The study considers four restaurants in Johannesburg. A research method was devised purely for this dissertation to measure the presence of quality management practices within the restaurant and the level of service quality experienced by the customer. Three research instruments were designed for the study by using various frameworks, specifically TQM (a type of quality management practice), the SERVQUAL instrument (a tool used to measure service quality) and qualitative research interviewing. Quality management practices at the restaurants were assessed using the first research instrument: The TQM Questionnaire, which was conducted as an interview between researcher and restaurant employees. The level of service quality was assessed using the second research instrument: The Customer Survey, which was dispensed to the restaurant customers. The third instrument, an observations table was used to corroborate the results obtained by the first two instruments and was designed by the researcher.

The results of the TQM Questionnaire were analysed using content analysis, and each restaurant was assigned a total TQM score, which signified the degree to which they implement TQM practices. These scores were compared to the results obtained from the customer surveys, which assigned each restaurant with a SERVQUAL score that measured the degree of customer satisfaction. The TQM results were compared to the SERVQUAL results for each restaurant in order to identify a relationship between the two aspects.

The research identified that 3 of the 4 restaurants showed a clear relationship between the presence of TQM practices in their operations and the level of service quality experienced by the customer. It was identified that restaurants that achieved high TQM scores also achieved the highest SERVQUAL scores. This finding recognises that there is a relationship between TQM and service quality, however the study does not go forward to investigate the nature of this relationship.

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I would also like to thank the four restaurants; you know who you are, for allowing me access to their establishment, employees and customers. Thank you, to the kind customers who participated in the study. This paper would not exist if it weren't for your valuable input.

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Nomenclature

IE	Industrial Engineer or Industrial Engineering
QM	Quality Management
TQM	Total Quality Management
TSQME	Total Service Quality Measurement Effectiveness
BPR	Business Process Reengineering
TQC	Total Quality Control
QC	Quality Control
PDCA	Plan Do Check Act
SME	Small to medium enterprises
RP	Research Purpose
CRQ	Central research question
TQ	Theory Question
IQ	Informant Question
EE	Employee Empowerment
CF	Customer focus
CI	Continuous Improvement
TOQ	Tools of Quality

Chapter 1: Introduction

Chapter One identifies the origins of the research and provides context. It features the basis and motivation for the investigation and illustrates its key features. The limitations of the study are brought to light along with the major questions of this research.

1.1. A Personal Narrative

As a result of my undergraduate years as a student of industrial engineering (IE), I was made mindful of the concept of quality. Prior to my studies I had always been aware of the term, and knew that I constantly expected good quality from the products and services I purchased; but often failed to consider *how* the superior quality was achieved or *why* quality levels differed from company to company. As an IE student I was exposed to the literature on quality management (QM) practices, and the operational value they offer companies. We examined numerous case studies and explored the effects associated with the implementation of QM practices. I vividly remember a case study on The Hard Rock Café franchise and their approach towards quality (Heizer & Render, 2011). I may not have been aware of it at the time, but the case study had a profound and lasting effect on me. It caused me to reflect on the extent to which a single restaurant franchise would go in order to guarantee their customer's satisfaction, and as my undergraduate studies progressed and drew to an end I began to wonder whether or not the same could be said about companies in South Africa. I became increasingly aware of the varying levels of service quality in the establishments I would frequent, predominantly in the restaurant industry, so much so that it often impacted on my decision to return to the restaurant. If the service quality I received failed to meet my expectations I would cease to return to the establishment, *even* if the food was excellent. I started to question why it was that some restaurants had superior service quality while others lacked it completely. What was it that some restaurants were doing that others were not?

Consequently, I decided that the best way to solve the enigma was to use my skills and knowledge of IE to investigate the reason for this anomaly. Perhaps my findings would prove useful to restaurants in South Africa by identifying a means by which they could improve service quality and potentially guarantee the revisit of patrons.

1.2. Background and Motivation

Theory suggests that if a company implements a QM practice (e.g. total quality management (TQM), Six Sigma, business process reengineering or Lean) then their quality levels should improve (Reid & Sanders, 2005), and as a result so should their levels of customer satisfaction (Pun & Ho, 2001). This statement holds true for manufacturing industries, and most service industries, but what could be said about restaurants?

To provide perspective, the applicability of IE practices to restaurants is considered followed by an exploration of the current state of the restaurant industry in South Africa.

1.2.1 Industrial engineering and restaurants

IE involves the application of science, mathematics and engineering methods to systems and operations (Oregon State University, 2015) in an attempt to produce "quality goods and services" (SAIIE, 2014). IE draws on a variety of skills as a means of identifying practical solutions to issues within businesses, which inevitably allows for the growth and prosperity of the company (SAIIE, 2014). It is only in recent years that a greater emphasis has been placed on the application of IE in the service industry (Wertz, 2015). In terms of engineering, a focus has always been placed on manufacturing as opposed to service processes (Wertz, 2015). Most service industries fail to make use of engineering techniques, which is unfortunate, as many engineering concepts can be used to improve service business' processes, productivity, and quality (Wertz, 2015). In fact, in recent years it has become more common to see Lean Manufacturing principles (a central element in IE) in the banking sector, hospitals, and the food industry (Kanakana, 2013). Accordingly, restaurants form part of the service industry and it is becoming more apparent that IE practices can be applied to restaurants to increase efficiency in all avenues of the business (Martinez, 2012). In the 1980's McDonalds was one of the first restaurants to implement IE practices in the form of Lean manufacturing to improve their process efficiency and customer satisfaction (Kanakana, 2013). The application of IE skills to restaurant operations has the capacity to improve service levels by increasing efficacy, thus resulting in greater profitability, because a restaurant's success is dependent on its ability to master service and provide good food (Sandlin, 2007). It is evident that there are benefits to the application of IE practices to the restaurant industry.

1.2.2 The South African restaurant industry

Statistics South Africa categorises the South African food and beverage industry into three clusters: 'restaurants and coffee shops', 'takeaways and fast food outlets', and 'caterers and other catering services' (Lehohla, 2014). The industry in recent years has begun to expand at a rapid rate, and between 2009 and 2012 it experienced a 5,5% per annum increase in income (Lehohla, 2014). In 2012 it was recorded that the food and beverage industry generated a total income of R43 899 million. 'Restaurants and coffee shops' contributed the most to the

abovementioned figure, having provided 49% of the industry's total income (Lehohla, 2014). It is evident that the industry is rapidly expanding and as a result competitiveness is also increasing (Chinomona, 2013). The increases in consumerism are attributed to dramatic changes in domestic market trends, and in South Africa these are namely: the increase in income per capita; as well as the substantial increase in its black middle class, female labour force, and the rural to urban migration (Maube, 2012). In South Africa, similar to other emerging economies where per capita incomes have risen, the convention of eating home-cooked meals has decreased as more people can afford to eat out (Maube, 2012).

In addition to the surge in consumerism in South Africa, customers are becoming more educated in the product offering they expect, and it is argued that customers are no longer satisfied by a simple meal, and have begun to expect more from restaurants (Chinomona, 2013). Consequently, the evolving industry has constructed a situation where food is no longer the only feature that draws customers to the establishment. Service (specifically, responsive service and reliable service) has become an element that significantly impacts the customer's satisfaction levels and consequently their patronage (Namkung & Jang, 2008). The industry has seen a paradigm shift whereby service has become the 'real product' of a restaurant (Restaurant Owner, 2015). Chinomona (2013) emphasises the need for South African restaurants to broaden their horizons, in an effort to satisfy the customer in more ways than one, as the customer dictates the success of a restaurant. Mohanty (1998) identifies that customers have immense power in shaping a company's triumph or failure, and it is this power that leads companies to develop ways of adapting to the customer's changing needs. Superior service quality aids in creating a more comfortable environment for the customer, thus resulting in increased customer satisfaction and retention (Chinomona, 2013).

1.3. Rationale for this Research

This study aims to explore an untapped topic in the restaurant industry. There is scarce research present that looks at QM practices and their effect on service quality in this particular sector. Could it be said that restaurants that show higher levels of service quality do so because they implement QM practices?

The study attempts to gain a clear picture of the current state of service quality and quality practices in restaurants, and determine whether the presence of QM practices has an effect on service quality and ultimately customer satisfaction. The goal of the research is to investigate the significance of QM practices in the restaurant industry, whether they have been consciously or unconsciously implemented. The research surfaced due to the amalgamation of the following:

- The researcher's passion for service quality as well as an interest in the restaurant industry
- The discovery of an area of inquiry, which had no true clarification in the sit-down restaurant sector
- The potential to provide the industry with valuable information on how to become more successful

1.4. Key Elements of this Research

The research aims to showcase the applicability of industrial engineering to the restaurant industry by identifying whether the presence of QM practices in a restaurant actually influences the levels of service quality, as experienced by the customer. Ultimately, the intention of the research is to explore, by studying various restaurants in South Africa, whether or not there is clear and tangible evidence in the operations of a restaurant that suggests the manifestation of good service quality. For the purpose of this research, 'quality' or more specifically 'good quality' will be defined as the ability of a product or service to meet and exceed the customer's expectations, as well as the product or service's ability to satisfy the predetermined specifications as established by the business. The research intends to use an established QM framework as a means of investigating the QM practices present in the sample restaurants, together with a measurement of the establishment's level of service quality through an analysis of the customer's experience of the establishment. The QM framework used to gage the restaurant's implementation of QM practices was selected following an examination of the literature on the various frameworks, available in Chapter 2.

1.5. The Research Question

The preceding section gives rise to the subsequent question:
Is there clear and distinct evidence present in restaurant operations that suggests the manifestation of good service quality?

More specifically, the question that the dissertation will endeavour to answer is the following:
Is there a relationship between TQM practices and service quality in the restaurant industry?

Where total quality management (TQM) is the QM framework that will be used to measure the restaurant's current QM practices.

1.6. Objectives

The objectives provide a means to an end, and necessitate the answering of the central research question, "is there a relationship between TQM practices and service quality in the restaurant industry?"

The objectives of the research are to:

1. Determine the customers perceptions and expectations of service quality in the selected sample restaurants
2. Establish if there is a general presence of quality management practices in the sample restaurants
3. Ultimately explore the relationship between quality management practices and their impact on the level of service quality in the chosen restaurants by comparing the obtained results

1.7. Limitations and Assumptions

To limit the scope of the research numerous limitations and assumptions are acknowledged. Firstly, the research data is limited to four different sit-down restaurants in Johannesburg. The restaurants offer similar product offerings, however the establishments themselves vary in size. It is assumed, that the data is neither affected by the location of the restaurant nor by its size. It is also assumed that the acquired data is representative of the typical sit-down restaurant client base. It is assumed that the use of an established QM framework will be the measure against which company QM operations will be gauged. It was the researcher's intention to obtain a greater sample size, however, numerous restaurants (most of which belonging to franchises) were highly disinterested in participating in the research.

1.8. Report Layout

The remainder of this report is structured as follows:

Chapter 2 presents a literature review, which aims to:

- Introduce the reader to the theory and frameworks relevant to the study.
- Expand on the notion of quality and service quality in the restaurant industry in particular.
- Explore methods of measuring service quality.
- Investigate and determine the most applicable quality control framework for restaurant application
- Identify gaps in current literature on the topic in question

Chapter 3 presents the reader with a description of the methodology and method for this study. The methodology explores:

- Various research designs relevant to the dissertation with a particular focus on observations, interviews and instrument based surveys.
- The quantitative aspects used for this research

The chapter continues by outlining the actual method carried out by the researcher, which comprises of:

- A discussion of the research approach.
- The development of the research instruments.
- A summary of the pilot study and its findings.
- Details of the full study, including information on the research sample and data collection methods.
- A description of the data processing methods to be used on the obtained data.

Chapter 4 presents the results and analysis of the research, indicating:

- The processed results, which are subsequently
- Presented in tabular, and where applicable, graphical form.

Chapter 5 discusses the findings presented in the previous chapter.

Chapter 6 concludes the research and offers recommendations for future work.

Chapter 2: Literature Review

2.1. Introduction

The literature review discusses quality and its impact on the success of businesses in an attempt to critically analyse and contextualise the significance of service quality to companies whose financial success depends on customer satisfaction. The review maintains a critical focus on the restaurant industry in particular. Insight is provided into the meaning of quality and its difference between the service and manufacturing industry before eventually identifying four different quality management practices (TQM, business process reengineering, Lean and Six Sigma) and their advantages and disadvantages. Their applicability to the restaurant industry is analysed and the most appropriate quality management practice is identified in an effort to provide the foundation for the research. Case studies of companies renowned for their high levels of service quality are also inspected along with the concept of service quality and the tool used to measure it; the SERVQUAL instrument.

2.2. An Overview of Quality

Quality in its purest sense is directly linked to a company's operational strategy in which case a successful quality strategy starts with an organisational culture that promotes quality (Heizer & Render, 2011). Quality has a profound effect on all aspects of a company and plays an important role in the company's success, as quality has the ability to impact a company's reputation and its financial standing. Nagar and Rajan (2001) compound this statement by identifying that external failure costs (failure of the product while in use by the customer) are a primary marker of a company's future sales.

The implications of quality are not strictly operations based, but have an effect on the company's standing with consumers. According to Berry, Zeithaml and Parasuraman (1985) the need for companies to operate at higher levels of quality has become a necessity in the recent years due to the rise of the "get your money's worth" customer, and it is identified that customers now expect more from companies in terms of quality. Thus, it is evident that there is a demand for companies to increase quality levels in an attempt to retain and gain customers. Heizer & Render (2011) believe that companies can work towards achieving high levels of quality through the implementation of a QM system, which identifies and satisfies the customer's needs. The presence of a QM system in conjunction with a team of employees who have an understanding of the principles of quality is vital in creating a company that strives to satisfy the customer and obtain competitive advantage (Heizer & Render, 2011).

The significance of quality had become so great, in fact, that the International Organisation for Standardization developed a single internationally recognised quality standard to unite countries globally, called ISO 9000. Heizer and Render (2011) indicate that this quality standard (ISO 9000) focuses on establishing quality management practices within companies through the implementation of good leadership, thorough documentation, work guidelines and strict recordkeeping. In 2008, ISO updated its standards to a more quality management system, which is described in their ISO 9001:2008 component, where greater emphasis is applied to customer requirements and satisfaction (Heizer & Render, 2011). Companies wishing to compete in the global market have to first and foremost become ISO 9001 certified, by partaking in a rigorous assessment of their quality procedures; a site visit of their establishment; as well as numerous audits of their products or services (Heizer & Render, 2011).

Quality can be a mystifying concept as it's meaning varies from one context to the next, it differs from to person to person as well as from business to business because it is so dependent on the environment in which it is defined (Berry, Zeithaml, & Parasuraman, 1985). Predictably, the *definition* of quality too varies and it does so between industries. In the manufacturing industry, the products are tangible and therefore measurable. Here, quality often concerns the notion of conformance - the degree to which a product's characteristics meet the company's standards (Heizer & Render, 2011). In the service industry the products are usually less tangible and are experienced rather than physically encountered by consumers and are considered "performances (and) not objects" (Berry, Zeithaml and Parasuraman, 1985, pp.44). Due to the intangibility of the product offering, quality in service is difficult to define and tends to be highly subjective. Table 1 displays the dimensions of quality as interpreted by Heizer and Render (2011) and how they differ between the manufacturing and service industry.

Table 1: Dimensions of Quality

Manufacturing Industry	***Service Industry***
Conformance to specifications	Tangible factors
Performance	Consistency
Reliability	Responsiveness to customer needs
Features	Courtesy/friendliness
Durability	Timeliness/promptness
Serviceability	Atmosphere

Table 1 effectively displays that 'quality' in the manufacturing industry is highly focused on the product, where all five factors are measurable in some way or another. The dimensions defining quality in the service industry are less easy to quantify except perhaps for the "tangible factors"

dimension whereas the remaining four dimensions are highly subjective and extremely difficult to gauge.

It is thus obvious from the preceding contrary dimensions of quality that a single, all encompassing definition of quality would cause confusion. Reid and Sanders (2005) identify that the definition of quality is strongly dependent on the role of the person defining it, thus it is comprehensible that there would be numerous definitions of quality. "Conformance to specification" is considered a definition of quality, and according to this definition quality is determined by how well the product is able to match the objectives and tolerances established by the designer (Reid & Sanders, 2005). In this definition, quality is quantifiable and therefore not directly related to the customer's opinion of quality, but rather to the designer's version of quality. Quality can also be expressed as the "value for price paid" or even by various "psychological criteria", definitions that are perhaps more applicable to the service industry (Reid & Sanders, 2005).

In the restaurant industry quality presents itself in two ways, as product quality and service quality (Kurtus, 2008). Product quality would most closely resemble the definition identified above of "conformance to specification", where the produced food has to meet a certain standard as set out by the restaurant. The quality of the food is determined by its ability to fulfil its inferred specifications or menu description. Service quality is more user/ consumer dependent and its definition is a combination of "value for price paid" (in terms of portion size for the price of the product as well as quality of service for amount spent) and "psychological criteria". Service quality as determined by the customer could have numerous meanings based on the customer's *expectation* of service, which could range from the courtesy of the staff to the promptness of service (Kurtus, 2008). Thus once a company establishes *their* definition of quality within the business, they can then begin to invest in various means of achieving the level of quality they desire. These means are known as quality control frameworks, which are discussed in detail in Section 2.5.

2.3. Service Quality

Before delving deeper into quality management practices it is essential to examine service quality, which pertains specifically to the service industry. Parasuraman, Zeithaml, and Berry, considered the forefathers in the study of service quality, were among the first stress the idea that quality is important in services and not only in manufacturing. Parasuraman, Zeithaml and Berry (1988) define service quality as the discrepancy between the customer's perceptions of quality and their expectations of quality. *Perceived* quality is understood to be the patron's judgement of the quality he/she receives from the business, whereas *expected* quality is

understood to be the patron's predetermined idea of the quality of a service he/she will receive upon their visit to the establishment i.e. *expected* quality refers to the quality a customer/consumer feels the company *should* offer rather than *would* offer (Parasuraman, Zeithaml, & Berry , 1988)

In terms of the benefits of superior service quality Berry, Parasuraman and Zeithaml (1994) identify that high levels of service quality are a means by which companies can yield greater profits. They acknowledge that superior service quality actually functions as a type of "profit strategy" because the benefits that result from exceptional service are countless e.g. increases in patronage and gratified customers. It is put forth by Parasuraman, Zeithaml, and Berry (1988) that dissatisfaction in a service occurs when there is a large gap between the customer's expectation and experience of the service, an undesirable outcome in the strive for superior service quality. The benefits, however, of impeccable service quality are not only external but also internal. Employees become invigorated and work effortlessly at maintaining and improving the company's high standards due to the presence of an organisational culture that promotes excellence (Berry, Parasuraman, & Zeithaml, 1994).

Evidently practicing excellent service quality offers appealing advantages, however, it is important to acknowledge that service quality is intangible and highly subjective (Parasuraman, Zeithaml, & Berry , 1988), therefore as mentioned in Section 2.2 a company needs to establish their definition of quality before they can attempt to attain excellence in the field. Berry, Zeithaml, and Parasuraman (1985) identify that in order to improve quality, it is mandatory that a company invest time investigating the "primary quality determinants" critical to the customer, as quality is defined by the customer (Berry, Parasuraman, & Zeithaml, 1994). Identifying these key "determinants" is merely one of the many facets necessary on the path towards improved service quality (Berry, Zeithaml, & Parasuraman, 1985). Obtaining superior service quality is not a one-step process but rather a journey, which should not be rushed Berry, Zeithaml, and Parasuraman (1985) identify the following elements as obligatory in improving service quality:

- **Managing the customer's expectations** – Ensure that the customer has realistic expectations of the establishment's service quality. It is imperative that the company does not raise customer expectations in an attempt to promote the business; overpromise is likely to lead to customer disappointment.
- **Managing evidence** - This pertains to controlling the tangible aspects of the service facility so that they convey the correct cues to the customers about the company's service quality.
- **Educating customers about the service –** This speaks to keeping customers informed about service policies and/or procedures to increase their understanding of the

functioning of the establishment, which allows customers to better align their expectations with the company's capabilities.

- **Developing a quality culture –** The notion of quality needs to be engrained in every employee of the company to ensure that the business is able to continually maintain excellent service quality.
- **Automating quality –** Introducing automated systems instead of humans, which may reduce room for error therefore increasing service quality through increased customer satisfaction.
- **Following up on the service –** This allows the company to improve on certain areas where service might be lacking by obtaining customer feedback.

From the above it is evident that there is no simple method for achieving superior service quality, and that it can be a lengthy process to ensure that the appropriate level of service quality is obtained. Poor quality is often not the result of the people delivering the service but of a poor service system (Berry, Parasuraman, & Zeithaml, 1994).

Berry, Zeithaml and Parasuraman (1985) emphasise that *total* commitment is necessary from all employees towards the planning and implementation of the various steps towards superior service quality, the key to which is ensuring that business employees understand the benefits of service quality i.e. that it ultimately contributes to the establishment's performance (Berry, Zeithaml, & Parasuraman, 1985).

2.3.1. Service quality in the restaurant industry

The success of a restaurant is dependent on numerous factors, which are constantly changing due to economic and social change (Marinkovic et al., 2014),that being said, it is still undeniable that restaurants rely on the presence of customers. Marinkovic et al. (2014) identify that a restaurant's service offering comprises of: food and beverage, service, ambience, hygiene and value for money. Food and beverage, of course , are essential to a restaurant and will continue to have an effect on customer satisfaction (Namkung & Jang, 2008). Food quality is often maintained through the restaurants's implementation of the Hazard Analysis and Critical Control Point (HACCP) system, which aims at identifying problems before they occur through the use of regluations and guidelines on food safety (Larson, 2006).

Service, like food, is deemed to have a significant impact on guest satisfaction – a key antecedent of the customer's revisit intentions (Marinkovic et al., 2014). Thus, in the highly competitive restaurant industry, companies that offer greater levels of service quality are more

likely to be successful (Pun & Ho, 2001), due to the fact that customers are more likely to revisit based on their increased satisfaction levels.

Since restaurant product offerings and prices have become so similar Bojanic and Rosen (1994) put forth that competitive advantage could only be achieved through an emphasis on service quality, price sensitivity and the idea of value-for-money. For the purpose of this paper focus will be placed on the service quality component. It must be noted at this point that customer satisfaction and perceived quality are not the same thing but neither are they mutually exclusive, as over a period of time satisfaction of a service may lead to the perception of good service quality (Parasuraman, Zeithaml, & Berry , 1988). Voss et al. (2004) nevertheless, do identify a distinct correlation between service quality and customer satisfaction, and note that the former has a positive impact on the latter. It is also imperative to recognise that customers' perceptions of quality are often deeply influenced by their own personal attitude towards quality (Marinkovic et al., 2013), reiterating the subjectivity of the notion of service quality**.**

A company can achieve excellent levels of service quality if it implements continuous improvement strategies, and investigates the customer's needs (Pun & Ho, 2001). Only once the customer's needs have been identified can a company attempt to satisfy them. Pun and Ho (2001) recognise that the gap between performed service and the perceived service quality begin to broaden as a result of ignorance towards the needs of the customer. Therefore, it is paramount to the success of the restaurant, that the establishment adopts an organisational culture in which the customer takes precedence (Pun & Ho, 2001), only through the achievement of customer satisfaction, and consequently revisit, can the restaurant prosper (Marinkovic et al., 2014). The interaction between service employees and customers is also identified as a driver of customer satisfaction and as a result the level of customer retention (Hennig-Thurau, 2004), therefore emphasising the importance of the relationship between employee and customer.

2.4. Measuring Service Quality

Parasuraman, Zeithaml , and Berry (1988) state that service quality can be gauged by measuring the consumer's perceptions of quality. They identified that in the past, there had been no benchmark against which one could compare the customer's perceptions of service quality, and thus, a basis for the development of the SERVQUAL instrument was formed. The SERVQUAL instrument is a tool used to measure service quality, by considering the gap between the customer's expectations and perceptions of the service provided by an establishment (Parasuraman, Zeithaml, & Berry, 1988). There is speculation that in some industries the perception scores themselves provide a better means of measuring service than the gap score, however, the gap scores are found to be useful in identifying areas where improvement is

required (Ladhari, 2009). Nevertheless the following remains true; SERVQUAL focuses on measuring *perceived* quality.

Parasuraman, Zeithaml, & Berry (1988) reveal the lengthy process undertaken in their design of the SERVQUAL instrument (available in greater detail in Appendix A.1) for a sample of various service companies namely: banking credit card services; repair and maintenance services; and long distance telephone services. Due to the fact that the instrument was designed using a specific sample care must be taken when applying it to a different industry, as the instrument may require minor alterations to allow it to be appropriate for the respective industry (Parasuraman, Zeithaml, & Berry , 1988). Nevertheless, the SERVQUAL instrument is applicable to any business that wishes to examine their consumer's experience of service quality, as well as to identify areas within a business that require attention from employees so as to improve service quality (Parasuraman, Zeithaml, & Berry , 1988).

The instrument, an example of which is available in Appendix A.2 comprises of 22 items that assess the 5 dimensions of quality, presented in Table 2, as identified by Parasuraman, Zeithaml, & Berry (1988)

Table 2: SERVQUAL's five dimensions of quality

Dimension	Definition
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"

The 22 items are examined twice. First, they investigate the customer's *expectations* of service quality, and then they inquire about the customer's *perceptions* of service quality, which they experienced (Parasuraman, Zeithaml, & Berry , 1988). The respondents indicate their level of satisfaction using a LIKERT scale, a 7-point scale ranging from 'strongly disagree' to 'strongly agree'. Since the purpose of SERVQUAL is to measure the gap between the customer's perceptions and expectations, overall service quality is determined by the formula Q = P-E (quality equals perception minus expectation) (Seminar d'Essi, 2011).

2.4.1. SERVQUAL criticisms

First and foremost, the SERVQUAL instrument is critiqued for not being a stable construct from one environment (industry) to another, and often requires minor adjustments (through the addition, removal or modification of the scale items) to make it a more applicable tool for different scenarios (Parasuraman, Zeithaml, & Berry , 1988) (Kulasin & Fortuny-Santos, 2005). It is also believed that psychometric issues may arise through the calculation of overall quality (Q = P-E), as consumers can tend to amplify their expectations based on prior negative experiences (Kulasin & Fortuny-Santos, 2005).

Research also shows that the length of the SERVQUAL questionnaire can have an unfavourable impact on the interviewee's participation, as the repetitiveness of the questionnaire can cause the interviewees to become bored, thus impacting on the trustworthiness of the results (Kulasin & Fortuny-Santos, 2005). The SERVQUAL scale is also criticised for its polarity in the wording of the 22 items (Kulasin & Fortuny-Santos, 2005), as some questions are negatively worded and others are positively worded which is considered to impact the respondents' outlook on the question. There is evidence to show that that average perception, expectation and gap scores differ for the negatively worded items and the positively worded items (Kulasin & Fortuny-Santos, 2005). In addition, concerns have constantly been raised about the convergent, discriminant and predictive validity of the construct as well as its applicability to different cultural contexts; even so the instrument is still considered a highly valuable tool for measuring and managing service quality (Ladhari, 2009).

2.4.2. The applicability of the SERVQUAL instrument

The SERVQUAL instrument has been used to measure service quality in a variety of service industries (Ladhari, 2009), even so, it's applicability is always investigated prior to blind application of the construct. Ramsaran-Fowder (2006) investigates the applicability of the SERVQUAL instrument and its 5 generic dimensions of quality to the hotel industry (See Appendix A.3). The study examines a means of measuring hotel service quality, in the Mauritian context, in an effort to evaluate customer satisfaction (a vital element that determines the success of a hotel in the highly competitive industry) (Ramsaran-Fowder, 2006). While the study is based in the hotel industry, Ramsaran-Fowder (2006) recognises the importance of quality and how it is fundamental in obtaining and sustaining competitive advantage, thus highlighting (once again) the benefits associated with identifying the customer's opinions on service quality. The study ascertains two new quality dimensions applicable to the hotel industry, 'core hotel benefits' (the benefits to hotel customers) and 'hotel technologies' (technological services available to hotel guests) (Ramsaran-Fowder, 2006). Consequently, providing evidence to prove that the SERVQUAL tool does in fact require some adjustment to

account for aspects within the hotel industry that influence the customer's perceptions of quality that are not accounted for by the generic model (Ramsaran-Fowder, 2006).

Additionally, Bojanic and Rosen (1994) investigate the applicability of the SERVQUAL instrument to the restaurant industry based on their belief that service firms need to find a way to gather information about the customer's experience of the service so that they can evaluate and enhance their performance (See Appendix A.3). It is believed that by identifying the customer's expectations and perceptions of the experienced service the company is able to confront their strengths and weaknesses and improve employee training (Bojanic & Rosen, 1994).

The results of the study, which investigates a chain restaurant catering to an assortment of customers, identify that the SERVQUAL instrument is in fact applicable to the restaurant industry, however it requires alterations to the 5 generic dimensions of quality (Bojanic & Rosen, 1994). The study reveals that, for the purpose of the sample restaurant, two newly identified (more appropriate) dimensions namely 'knowing the customer' and 'access (to the waiter)' should replace the original 'empathy' dimension. Bojanic and Rosen (1994) also put forth that the altered SERVQUAL instrument might only be viable for restaurants that are comparable to those used in the study, therefore care should be taken when employing the instrument. Evidently, both studies identify the versatility of the SERVQUAL instrument and its ability to function, with minor adjustments, as an effective service quality measurement tool in different industries but more importantly the restaurant industry.

2.5. Quality Control Frameworks

Due to the highly competitive nature of the market, companies are beginning to implement tried and tested quality control methodologies, which have worked for other companies in an attempt to improve the functioning of their operations and more specifically satisfy the needs of their customers (Mohanty, 1998). Heizer & Render (2011) categorise the four most popular frameworks as: TQM, business process reengineering (BPR), Lean, and Six Sigma. They state that for these frameworks to be effective it is vital that companies understand the fundamentals and strengths and weakness of the frameworks before blindly applying them to the business and expecting improvement.

2.5.1. Total quality management

Total quality management is an integrated effort designed to improve quality in all facets of a company. The framework recognises that by meeting and exceeding the customer's needs and expectations exemplary quality can be achieved, and the company's focus should be on satisfying *customer-defined* quality (Reid & Sanders, 2005).

TQM or TQC (total quality control) is a concept developed by the Japanese, and made famous by the Toyota Motor Co. The Japanese way of TQC dictates that in order to achieve *total* quality control, all divisions of a company need to partake in the quality control (QC) procedures (Ishikawa & Lu, 1985). The concept emphasises the need for employees in every division of the company to be an expert in QC with the ability to implement and encourage QC in order for quality to be obtained and maintained. Both Reid and Sanders (2005), and Ishikawa and Lu (1985) stress the notion that QC should be understood and practiced by employees at all levels of the business, not only by managers, and that QC should become the culture of the business in order for it to be effective. A key aspect of TQM is its focus not only on satisfying the customer but also on creating a sense of value amongst employees. Most successful TQM models exemplify notions of "integrity, honesty, commitment, participation and ownership" (Choppin, 1995, p. 48) and it is the emphasis on an empowered employee that differentiates this framework from others.

There is no direct route to realising TQM, however, companies that do implement the framework share a number of common features (Choppin, 1995), and according to Reid and Sanders (2005) they are: customer focus, continuous improvement, employee empowerment, and the 7-tools of quality control. These are recognised as the four main elements of TQM.

Customer focus

As identified in the preceding text, the customer is of utmost importance to the success of a business and what makes TQM unique is that its definition of the customer includes the notion of both *internal* and *external* customers (Huq & Stolen, 1998). The company's employees are considered the internal customers and the final consumer is considered the external customer. Customer focus is considered to be the most important of all TQM principles (Huq & Stolen, 1998), undoubtedly because of the emphasis placed on the importance of the customer and the fact that quality is customer driven. Customer needs and wants often change, therefore TQM stresses the importance of continually partaking in efforts to investigate the customers wants and needs (Reid & Sanders, 2005). TQM emphasises the *importance* of the customer, and all activities carried out by a company should be done for the benefit of both the internal customer (the employee without whom operations would cease) and external customer (he who supplies the income).

Continuous improvement

As the name suggests, the concept focuses on continually striving to achieve perfect quality by repeatedly improving processes in order to maintain and further advance quality levels (Reid & Sanders, 2005). TQM aims to achieve improvement, and this intention is central to all initiatives executed by a company implementing TQM (Slack & Lewis, 2011). Continuous improvement

is most effective when introduced gradually to a system, as it requires constant learning and problem solving in order to achieve improvement of any sort. Dr Josef Juran, considered to be a quality 'guru' and developer of Japanese quality in the '50's believes that continuous improvement can only be achieved through "project by project" improvement, implying that change occurs through a series of smaller improvements or changes undertaken throughout the company (Bicheno J. , 2002). Continuous improvement can be achieved through the use of the plan-do-check-act cycle (PDCA) and benchmarking (Reid & Sanders, 2005).

The PDCA also known as the Deming wheel describes the four activities that need to be executed in order to achieve continuous improvement. The cycle requires that the company plans for the implementation of a new procedure (plan - P) and in turn implements it (do - D). The company is ensures that the new procedure is running smoothly through quality control tools (check - C) and then assume the change by making it permanent (act - A). The 'P' 'C' and 'A' of the cycle are arguably the most important, yet they are often neglected by companies in a rush to simply 'do' (Bicheno J. , 2002) which essentially defeats the purpose of the continuous improvement cycle. The intention is to continuously apply what was learnt through previous application of the PDCA cycle, thus improvement is achieved on a continuous basis throughout the company's lifespan (Reid & Sanders, 2005). The cycle can be applied to numerous industries an example of which is its use by The Pearl River, NY School District, a receiver of the Malcolm Baldridge National Quality Award in 2001. The school makes use of the PDCA cycle in their method of achieving success in the classroom referred to as their "A+ Approach to Classroom Success" whereby the cycle is used in the design of their curriculum and the way in which they deliver instructions to the students within the classroom (Tague, 2005).

Benchmarking is another means by which companies can achieve continuous improvement. It involves examining the procedures of another company, considered best in its field, learning from their methods and applying what was learnt to the business in question's operations (Heizer & Render, 2011). Ideally benchmarking aspires to compare the performance of processes with companies at the forefront of the industry (Bicheno J. , 2002). Benchmarking can also be applied *within* the business as a means of identifying areas of excellence within the company's existing practices (Writing, 2015). The benefits of benchmarking are epitomised by Xerox. In the 80's Xerox founded the benchmarking concept during its attempt to save itself from bankruptcy (Jeffries, 1999). Xerox investigated their competitors' operations and strategies and were able to identify that their production costs were higher than that of their competitor's, subsequently they began to remedy the issues and as a result Xerox went forth to win the Malcolm Baldridge National Quality Award and is the front-runner for benchmarking initiatives (Jeffries, 1999).

Employee empowerment

Employee empowerment concentrates on educating the employees to be able to identify and resolve potential quality concerns in the company (Heizer & Render, 2011). Employees are rewarded for identifying faults in quality, and are incentivised to make decisions about quality in the production process (Reid & Sanders, 2005). TQM views employees as vital components of the business as they have a strong impact on quality (Slack & Lewis, 2011). Employees, at all levels of the business, are given extensive training in quality management tools to be able to identify and correct quality issues (Reid & Sanders, 2005). The framework emphasises the use of teams (or quality circles) as a means of empowering the employees and as a result employees work *together* to solve quality issues within the company through the use of simple, yet effective, problem solving techniques such as brainstorming, discussions and various QC tools (Reid & Sanders, 2005). Even though the literature on TQM is heavily engrained in the manufacturing industry, Root (2015) states that in the service industry customer service effectiveness may in fact improve with the inclusion of employee empowerment. Employees, instead of running decisions through management, should be authorised to make on the spot decisions regarding operations, as it is believed to have a significant effect on the level of customer service and therefore the quality of service (Root, 2015).

The seven tools of quality control

All employees, working in a company practicing TQM, should be well versed in the tools of quality to enable them to identify and correct possible quality issues, since so much responsibility is placed on them (Reid & Sanders, 2005). The tools, initially conceptualised by Kaoru Ishikawa, were designed in a way that necessitates minimal statistical knowledge so that everybody could use them (Bicheno et al., 2005). Applying the seven tools of QC to company operations is advantageous as they bring to light issues that are often hidden in plain sight. The intention is for quality circle members to use the tools in investigating issues and formulating improvements (Bicheno et al., 2005). The seven tools of quality are a means of establishing control of the processes within the company and are also a means of managing the business's operations (Ishikawa & Lu, 1985). They are now examined below.

Cause-and-effect diagrams also known as fishbone diagrams or Ishikawa diagrams, are used in conjunction with brainstorming to identify the roots causes of a problem within the company (Ozeki & Asaka, 1990).

Flowcharts are a visual step-by-step representation of the processes within a business. They often assist in identifying possible issues in a process by simplifying the process to diagram that is easily read and understood (Ozeki & Asaka, 1990).

Checklists are lists comprising of the common problem areas or defects in a company (Ozeki & Asaka, 1990). They allow employees to easily pinpoint areas that are experiencing an amplified number of difficulties so that they can easily be addressed and corrected.

Control charts are used to examine whether processes are operating within the predetermined and expected limits i.e. to identify whether or not a process is "in control" (Heizer & Render, 2011). The most commonly used charts are the x-bar and R charts.

Scatter diagrams are used to determine the correlation between one variable and another i.e. example the relationship between customer satisfaction and service quality (Heizer & Render, 2011).

Histograms are used to display the frequency distribution variables to be examined, for instance to examine if customer satisfaction levels are normally distributed or not (Ozeki & Asaka, 1990).

Pareto analysis is a quality tool used to examine quality glitches based on their degree of significance, which is decided on by the company (Heizer & Render, 2011).

2.5.2. Lean

Lean, as with TQM, is a concept that originated in Japan and has spread globally. It was initially thought of as a tool applicable strictly to the manufacturing industry, although it has recently become highly appropriate for the service industry (Heizer & Render, 2011). Bicheno and Holweg (2009) identify that the 'Lean approach' focuses on waste reduction or elimination in processes where demand is instantaneously met, and products are of perfect quality. The Lean philosophy is to deliver what the customer wants precisely when and where it is needed at the lowest cost whilst ensuring that processes and operations run rapidly and efficiently (Bicheno & Holweg, 2009). Lean operations are driven by customer demand, often referred to as the "pull" of the customer's order (Heizer & Render, 2011). The five main elements of Lean as identified by Bicheno and Holweg (2009) are customer focus, value stream, flow, pull systems, and waste. A more detailed overview can be found in Appendix A.4.1.

2.5.3. Business process reengineering

Business process reengineering, also known as BPR, is a relatively new and highly radical approach towards achieving improvement in a company's performance in terms of quality, cost, service, and speed (Slack & Lewis, 2011). BPR is comprised of a number of elements from TQM, Lean and other ideas present in operations management, however it implements the concepts more radically than the aforementioned practices (Slack & Lewis, 2011). The factor that sets BPR apart from the other quality management practices is that changes applied to a company's operations are not made incrementally but drastically (Slack & Lewis, 2011). Slack and Lewis (2011) identify that BPR centres on the following: cross-functional processes;

dramatic improvements; 'short fat' processes; and merging action with control. The elements are examined in further detail in Appendix A.4.2.

2.5.4. Six Sigma

Six Sigma is a quality concept made famous by Motorola. The name of the concept derives from the fact that the customer specification of any product or service must be within 6 standard deviations of the process mean (Bicheno et al., 2005). Six Sigma should not be viewed as a simple examination of variation but as a broad improvement concept (Bicheno et al., 2005). Six Sigma is not simply about achieving 3.5 defects per million, but a concept that is targeted at: improving processes within a business; increasing customer satisfaction; and reducing the costs associated with poor quality (Bicheno et al., 2005). The central themes of the Six Sigma concept are: customer focus; the use of quantitative analytical methods and trained practitioners; and the DMAIC cycle. These are considered in greater detail in Appendix A.4.3

2.6. Comparison of QM Practices

In an attempt to evaluate the quality management practice most applicable to the restaurant industry, a comparison of the abovementioned quality management models is conducted by evaluating their advantages and disadvantages. Information was extracted and simplified from a number of sources and presented in a tabular format in Table 3.

Table 3: A comparison of the quality management practices

Quality Management Practice	Advantages	Disadvantages
TQM	1. Applying TQM can improve the character and health of the company (Ishikawa & Lu, 1985) 2. TQM creates a sense of unity within the employees of the company as well as a sense of purpose (Ishikawa & Lu, 1985) 3. Implementing TQM allows the company to gain the confidence of its customers through its quality assurance methods which leads to profit (Ishikawa & Lu, 1985) 4. TQM takes a holistic and continuous approach towards quality (Slack & Lewis, 2011) 5. Emphasises the nurturing of human resources, resulting in improved employee performance	1. Continued use of standards and procedures leads to over-systemised decision making (Slack & Lewis, 2011) 2. Expensive to implement and maintain standards and procedures (Slack & Lewis, 2011) 3. It can be time consuming to implement (Slack & Lewis, 2011) 4. Companies may already be implementing TQM practices without realising it (Slack & Lewis, 2011) 5. Greater presence in larger companies than small to medium enterprises (Yusof & Aspinwall, 2000)

	and a satisfied workforce (Ishikawa & Lu, 1985)	
Lean	Bicheno & Holweg (2009) identify the following as the benefits of implementing Lean: 1. Improved quality 2. Reduced waste 3. Increased efficiency 4. Increased employee morale through engaged employees	Slack & Lewis (2011) pinpoint the subsequent points as drawbacks of Lean: 1. Approaches can be taken too literally 2. Unpredictability in supply and demand can cause principles to break down as they are so heavily dependant on demand 3. Costly to implement and maintain
BPR	Slack & Lewis (2011) allude to the following as the advantages of BPR: 1. Increased effectiveness through rethinking and redesigning of processes 2. Reduction of costs by removing "meaningless" processes (those that are of no value to the customer) 3. Creation of meaningful jobs for employees 4. Increased flexibility within the business 5. Growth of the business	The following weaknesses are identified by Slack & Lewis (2011): 1. Focuses more on work activities than on people thus neglects to acknowledge the importance of human resources 2. Company becomes vulnerable due to elimination of non-value adding processes 3. Radical

Six Sigma	The benefits of Six Sigma extracted from Slack & Lewis (2011) are as follows: 1. Focuses on the entire system as opposed to singular elements 2. Proactive approach to quality control and management due to statistical analytical emphasis 3. Staff are well trained in quantitative analytical skills	1. Many elements are similar to those of TQM, there is a definite overlap (Slack & Lewis, 2011) 2. Hierarchical in the structure of the system and staff involvement (Slack & Lewis, 2011) 3. Expensive to train staff in analytical skills (Slack & Lewis, 2011) 4. It can often be unrealistic in the strive to achieve extremely low defects per million (3.4 per million) (Slack & Lewis, 2011) 5. May be more valuable to manufacturing industry than to service industry (Slack & Lewis, 2011) 6. Often accurate data is not available and analysis cannot be completed (Antony, 2006) 7. In the service industry defects are often hard to quantify and vary significantly between industries (Antony, 2006)

2.7. Conclusion from Comparison

The comparison conducted in Section 2.6 in conjunction with the information provided in the preceding sections of the literature review reveals TQM to be the most suitable quality management practice to be applied to the restaurant industry. Table 3 indicates that TQM emphasises the importance of its human resources (i.e. those who provide service to the customers), who are vital to the success of service companies including restaurants, and aims to nurture and develop them. In Section 2.3.1, continuous improvement is considered a means by which improved service quality can be achieved; this aligns well with TQM's outlook on quality. Even though Table 3 identifies the fact that some companies may already unknowingly be implementing some TQM practices as a disadvantage this can be overlooked, as according to TQM principles, there is always room for continuous improvement. Restaurants could simply expand on their current knowledge. TQM's holistic approach towards quality creates a quality culture amongst its employees, and as mentioned in Section 2.3.1 a company with a service quality culture is more likely to deliver superior service quality since the focus of operations is on achieving superior service. Section 2.3.1 also alludes to superior service quality by way of classifying the customer as the main priority, which is yet another key element of TQM. The

disadvantages of TQM displayed in Table 3 are noted, however, there is opportunity to overcome the disadvantages, as they are not rooted in the concept's philosophy, but in its implementation.

Six Sigma is not deemed an appropriate quality management approach to managing service quality in the restaurant industry due to its highly analytical focus and the fact that staff members require intense training in order to be effective (Table 3). Six Sigma's focus is on statistically analysing processes, which often presents limitations when used in the service industry (Table 3). Therefore, due to the limitations identified in Table 3, it can be concluded that Six Sigma may be more suitable as a complement to a quality management practice rather than as a restaurant's chief quality management system. Anthony (2006), identifies that Six Sigma can be implemented to certain processes within a service company, provided that the process is a good candidate for Six Sigma projects. It may be, for example, useful to implement Six Sigma projects in a restaurant's kitchen to reduce the amount of product waste.

Table 3 indicates that BPR has a tendency to undermine the business's employees, which is inherently unfavourable to an industry whose success depends heavily on the role of its employees. Table 3 also indicates that Lean and BPR are very radical and require extreme changes within the business, which can be impractical for an already established company. Moreover, TQM is identified as the quality management practice most suited to the restaurant industry, in particular, as it does not demand highly technical QM tools in order to be effective. TQM offers simple, effective tools for problem solving and process improvement, which as a result reduces the potential costs associated with advanced skills training.

TQM's emphasis on empowering the employee is an important attribute and plays a vital role in its application to the restaurant industry where, as mentioned above, success is so highly reliant on the employees. It can be seen from the above that the advantages of TQM identified in Table 3 align better with the ideas of service quality in the service industry than those of Six Sigma, Lean and BPR, nevertheless, TQM too has its drawbacks. The TQM philosophy seems to have a greater standing amongst larger organisations, thus little research has been published on its presence in small to medium enterprises (SME's), and as a result there is decreased appreciation for its benefits to smaller companies (Yusof & Aspinwall, 2000). Regardless, the case for the application of TQM to the restaurant industry in an effort to improve service quality is made in the above analysis. The literature presented on TQM in the preceding sections will play a key role during the development of the dissertation's theoretical framework, which is presented in Chapter 3, Section 3.3.2.1.

2.8. Applications of QM Practices in the Service Industry

This section considers two case studies conducted by Heizer and Render (2011) of establishments highly acclaimed for their superior levels of service quality, and implementation of TQM practices. The case studies examine the Hard Rock Café restaurant franchise and the Ritz-Carlton hotel franchise and their emphasis on customer satisfaction and the means by which they achieve superior service quality. A summary of the information presented by Heizer and Render (2011) is presented below.

The Hard Rock Café's approach towards achieving customer satisfaction is by providing the customer with a memorable experience; titled as their "experience strategy". They endeavor to provide their customers with exceptional quality, and through continuous improvement techniques they persistently strive to maintain and improve quality. The café constantly reviews its menus and conducts food research in an attempt to constantly improve their offerings for the benefit of the customer. The franchise frequently carries out customer surveys with the intention of evaluating service and food quality. The scores are rated on a scale of 1 to 7, and any score less than 7 implies that the restaurant has failed in its efforts to achieve customer satisfaction. The Hard Rock Café has high expectations of itself when it comes to quality, and takes a holistic approach towards it. Failing to satisfy the customer represents a breakdown of their operations strategy.

The second case inspects the Ritz-Carlton hotel group and its focus on quality. Guest satisfaction is of the highest priority to the franchise, and as a result all processes within the hotel are aligned to ensure that guests are always 100% satisfied. The Ritz believes that this goal can be achieved through exceptional quality and minimal deficiencies. The franchise incorporates numerous TQM tools into its daily operations to ensure that this goal is met. As in the case of Hard Rock Café, customers do not simply buy a quantifiable product but purchase an experience; so enhancing this experience is paramount. Ritz-Carlton ensures quality of the highest standard by first and foremost measuring and quantifying it. The hotel self-examines its processes by using statistical analyses as a means of identifying and creating benchmarks against which future activities can be measured all in an effort to certify outstanding quality. The presence of measurable targets allows the company to focus on continuous improvement where the concept of employee empowerment (through the use of 'self-directed' work teams) plays a vital role. The company distributes responsibility amongst its workforce by means of educating them in the field of operations management as well as with the tools to identify and improve on quality inefficiencies and lapses.

It is evident that in both cases quality is built into the processes within the companies to ensure that customer expectations are met and high levels of quality are maintained. Both studies depict the customer's influence over company operations, where operations are designed for the sole purpose of satisfying the customer. This demonstrates the power that the customer has over the company. This power is a driving force that shapes operations within an organisation, which causes companies to adapt and change to the customer's requirements (Mohanty, 1998). Disappointing a customer in terms of what they expect of the experience can result in the loss of customers to competitors (Ozeki & Asaka, 1990).

2.9. TQM and Service Quality in Restaurants

There is evidence in published literature to suggest that, according to theory, there should be a relationship between TQM and service quality in industry. This section aims to inspect the research, or lack thereof, that has been done on the subject with a focus on the service industry and more specifically the restaurant industry, in an attempt to present motivation for the research at hand.

Dotchin and Oakland (1994) recognise that much of the literature available on TQMs influence on service quality in the service industry has been focused on services whose environments resemble those of the manufacturing industry; where emphasis is placed on the more tangible aspects of service i.e. process control aspect of 'back office activities'. However, the benefits of TQM are not limited to the measurable components of service industries but also to the customer-employee interaction, which is recognized as a contributor to increased levels of service quality (Dotchin & Oakland, 1994). Lakhe and Mohanty (1995) take a less general outlook on TQM and examine its potential application, as a means of improving quality, to numerous service systems ranging from health services and restaurants to hotels and banking systems. The restaurant industry is mentioned briefly, but no detail is given on the topic, attention is directed towards banking systems in particular through a case study on TQM in a bank in India (Lakhe & Mohanty, 1995). Lakhe and Mohanty (1995) develop the 'total service quality measurement effectiveness' (TSQME) model, which they believe can be used to measure the efficacy of a service company's TQM practice, however, they conclude that the TSQME model requires further inquiry and authentication before it can be considered viable. While no further research on the TSQME model is available, Beaumont and Sohal (1999) distinguish that although service QM practices are widely used it is difficult to link their existence to the success of the company. Lazari and Kenellopoulos (2007) consider the presence of TQM practices in hotel restaurants in Greece, and identify that TQM is often not implemented in the sample establishments due to the employee's lack of knowledge on the

topic. It is identified that a low familiarity with the TQM concept leads to a decreased appreciation of its benefits and relevance to the business; which is compounded by the finding that the managers and employees at the hotels with a higher class rating (a higher class level implies that the establishment offers superior quality products and services) exhibited greater knowledge of TQM practices and their benefits as a result of increased training and exposure to the concept (Lazari & Kenellopoulos, 2007). Incidentally, a relationship between TQM and service quality is revealed, yet remains unexplored. Talib, Rahman and Qureshi (2011) assess the awareness of TQM practices in Indian service industries due to its implications to the success of the business. Although the research sample does not include the restaurant industry, numerous other services are considered such as hospitality and healthcare, and it is identified that companies with employees that have a greater knowledge of TQM practices seem to identify its ability to guarantee higher quality service and products (Talib, Rahman, & Qureshi, 2011). The study brings to light the relationship between TQM and quality, yet fails to explore the connection in the restaurant industry.

Andaleeb and Conway (2006) explore the factors that affect customer satisfaction in the American restaurant industry, and identify that customers are most influenced by service quality (responsiveness in particular), price, and food quality accordingly. Andaleeb and Conway (2006) ascertain that superior service could be achieved through appropriate and continuous employee training, but no further detail is given on the topic. Susskind, Kacmar and Borchgrevink (2007) develop the guest-server-exchange model, which identifies that there is a relationship between employees' perceptions of their work environment and guest satisfaction. It is found that employees' exposure towards the existence of service delivery standards within the company is linked to their perceptions of receiving backing from their colleagues to perform their jobs, which in turn was related to the service provider's orientation towards their guests (Susskind, Kacmar, & Borchgrevink, 2007). The study concludes that the service provider's encounter with the guests has a significant impact on customer's service experience (Susskind, Kacmar, & Borchgrevink, 2007)**,** thus it is evident that the presence of service quality standards within the business fundamentally impact the customer but no detail is given regarding TQM in particular. Susskind (2010) identifies elements beyond food that attribute to the success of a restaurant, and attributes service failures in restaurants as a contributor to negative word of mouth, thus identifying the significance of superior service quality to the success of the restaurant. He discusses the literature on concepts such as service process management, the guest-server-exchange model and complaint management, as methods of promoting or achieving excellent service, however, there is no direct link or mention of TQM (Susskind A. M., 2010).

2.10. Conclusion of the Literature Review

The literature begins with an examination of the applicability of IE ideas to the restaurant industry and it is noted that there are rewards to applying IE concepts to restaurant operations i.e. improved service quality and as a result an increase in satisfied customers and eventually greater profitability. The South African restaurant industry, in particular, is explored and it is recognised that competition in the industry is growing; therefore it is necessary for companies to identify alternative means of guaranteeing competitive advantage and satisfying the customer. It is suggested that providing superior service quality may be the key.

A general overview of quality is investigated with a focus on its meaning in the service industry and ultimately the restaurant industry. It's identified that quality in the service industry is more difficult to define than in the manufacturing industry due to the intangibility of the product offering, thus for the purpose of an industry where the customer's perceptions of quality are important, it is presented that the best way of defining quality is to first determine what the customer's expectations of quality are. The literature ascertains that in the service industry, the term "service quality" is often used when exploring the concept of quality. Service quality is defined as the discrepancy between a customer's perceptions and expectations of the provided service, and can be measured using the SERVQUAL instrument. It is put forth that an awareness of the level of service quality can only be achieved by measuring this 'gap'. The review examines the applicability of the SERVQUAL instrument to the restaurant industry, and it is concluded that with minor adjustments it is a viable means of measuring the levels of service quality in the restaurant industry.

It is acknowledged that superior quality is the result of a company's implementation of QM practices. The literature compares and contrasts the most common QM practices, and identifies TQM as a highly favourable approach towards quality control in the restaurant industry. Numerous advantages of TQM are identified and it is deemed the most applicable because of its intense focus on the customer (and their expectations of quality) and nurturing the employee. The review subsequently explores case studies on the effects of QM practices on service quality. The case studies pinpoint that implementing quality management practices in an effort to improve service quality is highly feasible and effective. It is also made apparent, however, that it is necessary to measure the customer's interpretations of the provided service in order to ascertain whether or not their needs are being satisfied. QM strategies are worthless if the company is not able to gauge its effect on the customer. It is thus important to acknowledge that companies, in the manufacturing industry and service industry alike, need to assess constantly the impact of their improvement methods on their customers.

In conclusion the review suggests the potential relationship between TQM and service quality in the restaurant industry, and provides a basis and context for further exploration. Literature on the direct relationship with reference to restaurants is scarce and a clear gap in current literature is evident.

The literature presented in this chapter consequently forms the foundation on which the succeeding chapters and dissertation are based. Most notably the four key elements of TQM, and the SERVQUAL instrument provide a strong theoretical framework for the development of the method section and research instruments. The four key elements of TQM are pivotal to the design of the research instruments used to investigate the existence of TQM at the sample restaurants, which are considered in Section 3.3.2. The SERVQUAL instrument is used as a basis for the construction of the instrument used to assess customer satisfaction, which is also reviewed in Section 3.3.2.

Chapter 3: Method

3.1. Introduction

This chapter focuses on two topics that are often mistaken to have the same meaning namely methodology and method. The methodology of a research paper examines the frameworks around which the research is based. The choice of framework is dictated by the research question. The method, however, is the actual process undertaken by the researcher to obtain the desired results. These two areas are discussed in depth in the following sections.

3.2. Methodology

This section explores the differences between the various approaches to research design by looking at quantitative, qualitative, and mixed methods strategies. It also explores the concepts of reliability and validity and concludes with a summary of the approaches towards sampling and informant selection. The section aims to highlight the frameworks and theory most suited to the study at hand, and offers a basis for the research method that follows in Section 3.3.

3.2.1. Research design

Creswell (2009) identifies three types of research design namely quantitative, qualitative, and mixed methods and puts forth that both the research question and the researcher's personal experiences greatly influence the choice of research design. It is discernible that in the case of the latter, the researcher will often choose a research method befitting their capabilities (Creswell, 2009). Prior to undertaking the research a design needs to be decided upon by the researcher, as each design is associated with different strategies of inquiry and research methods therefore requiring different approaches (Creswell, 2009).

Quantitative research looks at assessing a theory by means of testing variables, usually through experimentation (Creswell, 2009). According to Creswell (2009) the quantitative research report has a set structure to be followed at all times and aims to:

- Create, within experimentations, a means to guard against bias, and
- Allow for the reproduction of results through a generalised methodology.

Qualitative research, however, focuses on the exploration of a subject through discussion in an attempt to attribute meaning to an issue, which often involves an inquest into a social or human problem (Creswell, 2009). The research data is often collected from the respondent's natural setting and is inductively analysed to establish themes (Creswell, 2007). A strictly qualitative report has no specific format, however, qualitative reports do share common characteristics i.e. the collection of data from the respondents' natural settings (Creswell, 2007).

Mixed methods research combines the two preceding research designs for the purpose of increasing the overall strength of the study (Creswell, 2009).

Within each of the aforementioned research designs exist several design models known as strategies of inquiry, which are important factors that dictate the course of procedures for the research (Creswell, 2009). The selected strategy of inquiry, as acknowledged above, relies greatly on the research question (Creswell, 2009). Examples of strategies of inquiry as identified by Creswell (2009) are displayed in Table 4.

Table 4: Examples of qualitative, quantitative and mixed methods strategies of inquiry

Qualitative	Quantitative	Mixed Methods
1. Narrative research 2. Ethnographies 3. Grounded theory 4. Case study	1. Experimental designs 2. Non-experimental designs (surveys)	1. Sequential (e.g. begin with qualitative, and compound with quantitative methods) 2. Concurrent (merge quantitative and qualitative methods)

Each of the three research designs feature specific research methods that encompass the data collection, analysis and discussion methods to be used in the study. The methods differ between the research designs; therefore it is imperative that the aim of the research be used to determine the research method (Creswell, 2009). Table 5 depicts how the approaches to research differ amongst the three methods of inquiry.

Table 5: Examples of the research procedures pertaining to the different research methods

Qualitative	Quantitative	Mixed Methods
The use of open-ended questions or interview data that lead to the development of theories that were not previously acknowledged (Emerging methods)	Instrument based questions that lead to a conclusion based on the established objectives (Pre-determined methods)	Instrument data may be supplemented by open-ended discussions and reflections. (A combination of qualitative and quantitative methods)

Thus, to summarise the views of Creswell (2009) the following can be said about selecting a research model to suit the research question:

- When the problem requires the testing of a theory then a quantitative approach is best

- Should the research problem require further exploration due to lack of available research then a qualitative approach is suggested
- Lastly, when greater understanding of the research problem is required through the use of a combination of qualitative and quantitative research methods then a mixed methods research approach is optimal e.g. a survey tool used in concurrence with an open-ended questionnaire

The succeeding sections examine the theory on the research methods deemed relevant to the study at hand. Due to the study's focus on human participants, research approaches such as observations, interviews and surveys, which extract information from the subject are explored in the sections that follow.

3.2.1.1. Observations

Bailey (1994) classifies the observational method as a common means of obtaining non-verbal information about a scenario, which can be used as a supplement to other data collection techniques i.e. surveys. The main purpose of using observations is to gain insight into the daily activities and behaviours of the research participants, which they may not share through interviews and questionnaires (Bailey, 1994). First-hand observation of an incident is deemed to have greater value than the second-hand account given by a respondent through an interview or questionnaire (Bailey, 1994). Conversely, Bailey (1994) also speaks to the compromised validity of direct observations, as the person being observed has the tendency to conduct themself in an altered manner, due to the lack of anonymity between the observer and the observed. Observations can be conducted in either a structured or unstructured manner; a decision that is made by the researcher. The former entails the use of a pre-determined set of items that are to be observed (which are selected by the observer), whereas the latter suggests an amorphous approach to making and recording observations (Bailey, 1994).

3.2.1.2. Interviews

Interviews are considered an extremely effective means of acquiring comprehensive information about a topic, however they are deemed highly laborious tasks due the need for a one-on-one encounter between researcher and respondent (Wilkinson & Birmingham, 2003). Wengraf (2001) recognises that "an interview is a research interview" which implies that no matter the context, an interview is conducted for the sole purpose of acquiring information in an attempt to further existing knowledge on a topic.

Wengraf (2001) explores the science of qualitative research interviewing, and identifies two approaches when it comes to the collection and interpretation of data namely the common-sense hypothetico-inductivist mode, and the anti-common-sense hypothetico-deductivist model. The former requires the gathering of "*all* the relevant facts" followed by an examination of the facts

in an attempt to identify what theory they might propose - suggesting that theory transpires as a result of induction (Wengraf, 2001). The anti-common-sense hypothetico-deductivist model, however, requires an examination of the theory pertaining to the topic prior to the collection of information for the purpose of determining which facts are relevant to the study (Wengraf, 2001). The researched theory is used to develop a hypothesis and it is through the use of the hypothesis that the relevant facts ("hypothesis relevant facts") are selected (Wengraf, 2001).

Interviews are an intricate research tool (Wilkinson & Birmingham, 2003), and numerous considerations should be made before conducting one. The face-to-face nature of interviews results in the emergence of emotions; therefore care should be taking during the interview process (Wengraf, 2001). It is also necessary that the interview be well prepared in order to ensure that only the relevant information is extracted when delving deep into the topic at hand (Wengraf, 2001). Although interviews provide vast amounts of information, Wengraf (2001) stresses the importance of acknowledging that the interviewee may also be providing (intentionally or unintentionally) biased information, which can be disadvantageous. It may often be necessary for the interviewer to make assumptions about the information they receive from the interviewee to be able to extract the relevant and un-biased information from the encounter (Wengraf, 2001). Creswell (2009) also identifies that a researcher's direct presence in an establishment may cause the participant to provide biased responses, and puts forth that their presence may also interrupt the day-to-day runnings of the business. This research method, however, is considered advantageous as the researcher often has direct control over the line of questioning – a result of their being directly involved with the participants and the environment (Creswell, 2009). This form of inquiry also allows for participants to be more comprehensive, and as result present historical information with a greater significance (Creswell, 2009). Thus, it is evident that an interview is a powerful tool that requires planning in order to construct an effective means of acquiring accurate and relevant data.

Developing an interview

Wengraf (2001) builds a strong case to emphasise that an interview is a powerful tool, which allows for the extraction of information in any setting. So, it is obvious that developing a tool with such power requires a great deal of planning. Wengraf (2001) discusses various frameworks for developing interviews. Figure 1 represents the framework and general structure put forth by Wengraf (2011) for "preparing moderately or heavily-structured interviews".

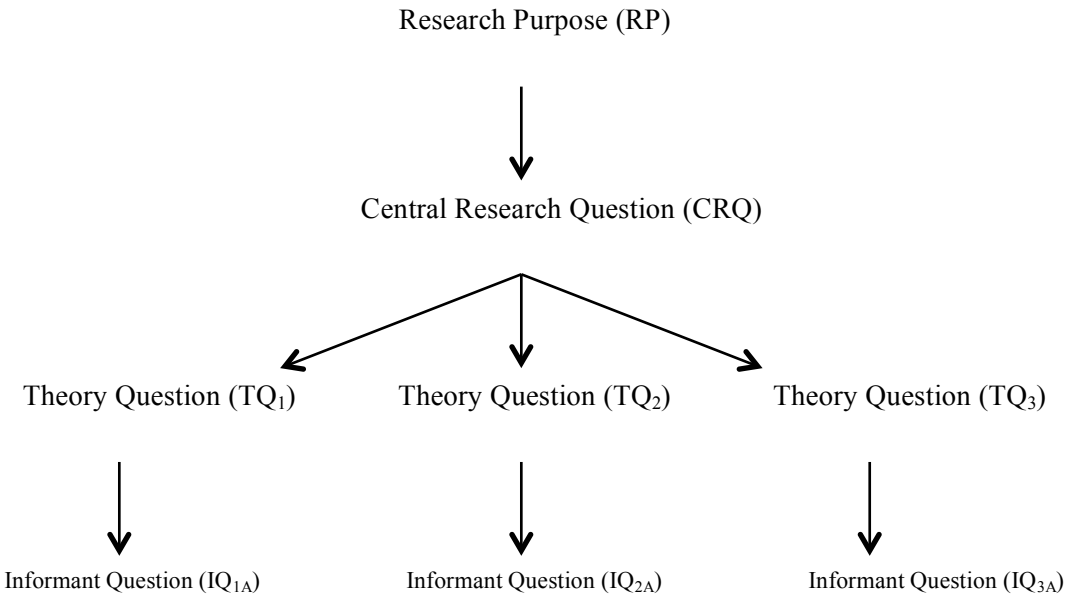


Figure 1: A representation of the process of obtaining interview questions that stem from the research purpose

Figure 1 indicates that the development of the interview starts with the conceptualisation of the all important research purpose (RP), from there the central research question (CRQ) can be formulated. It is imperative that the RP and CRQ are thoroughly investigated and comprehensively formulated, respectively, to ensure that the design of the interview is clear (Wengraf, 2001). The theory questions (TQ) aim to aid in the answering of the CRQ. The TQ as their name suggests relate directly to the theory associated with the CRQ. The TQs are broken down into numerous informant questions (IQ). The IQs are the questions presented to the interviewee during the interview and are written in layman terms. The purpose of which is to ensure that the interviewee easily understands the IQs. The objective of the interview is to draw conclusions about the TQs through the responses obtained from the simplified IQs.

Analysing interviews

Content analysis is a well-established tool for analysing the transcribed results of a questionnaire or interview, and is applicable on a quantitative and qualitative level (Wilkinson & Birmingham, 2003). The principles of content analysis are universal and call for the grouping of data (collected through interviews, and discussions) into categories, which comprise of themes, words, sentences or phrases (Wilkinson & Birmingham, 2003). Once the responses are assigned to the relevant category, they are analysed (Wilkinson & Birmingham, 2003). There are two approaches towards content analysis: conceptual analysis (quantitative) and relational analysis (qualitative).

Conceptual analysis (also *thematic* analysis) requires that a measurement be taken of the number of times a concept (theme, word or phrase) surfaces within the text (Wilkinson & Birmingham, 2003). The concepts are selected by the researcher and are dependent on the research focus. *Conceptual* analysis can be applied by merely: counting the number of times a *specific* word appears; counting the *associated* words; or by investigating explicit and *implicit* themes that arise in the text (Wilkinson & Birmingham, 2003). Due to the quantitative nature of this analysis method it is often criticised for the fact that it fails to take account of the true meaning behind the information (Wilkinson & Birmingham, 2003). *Relational* analysis, conversely, is the qualitative approach towards content analysis, which considers the relationship between words and phrases whereby meaning is unearthed through the exploration of the relationships between the words and phrases disclosed in the text (Wilkinson & Birmingham, 2003). *Proximity* analysis is the method used to investigate the juxtaposition between the themes, phrases or words presented in the text and the pre-defined themes, phrases and words (Wilkinson & Birmingham, 2003). This approach requires that the researcher scans the text for the presence of their pre-defined words, and then attributes meaning based on the proximity of the words by associating weights to the distance (Wilkinson & Birmingham, 2003).

3.2.1.3. Instrument based surveys

This section investigates the SERVQUAL survey instrument in particular. The instrument as identified in Section 2.4 is a model used to measure the consumers' perceptions and expectations of the service quality they receive, which is often rated on a 7–point Likert scale that ranges from 7 -strongly agree to 1 -strongly disagree (Dahlgaard-Park, 2015). The instrument is used to explore the customer's perception of the establishment across the 5 dimensions of quality. Meaning is extracted by calculating the "Gap Scores" i.e. the distance between the consumer's perceptions and expectations for each question. The gaps are measured using the formula P - E (perceptions minus expectations), and are calculated for every SERVQUAL question. Subsequently, the overall Gap Score per dimension is calculated by averaging the gap scores per question. Finally, summing the average Gap Scores for the five dimensions, and dividing the result by 5 produces the overall SERVQUAL score.

The overall SERVQUAL score measures the extent to which expectations exceed perceptions; positive scores imply that perceptions surpassed expectations, whereas negative scores imply the opposite (Dahlgaard-Park, 2015) i.e. a score of +1 implies a superior level of experienced service than a score of -1.

To ensure that analysis and calculation of the Gap Scores is done correctly, it is important to identify if there are any reverse worded questions in the tool, for example when "I do not dislike running" is used as opposed to "I like running". Both questions have the same meaning but are worded differently. It is mandatory that the Likert scores for these questions be reversed to correspond with the rest of the questions and for Cronbach Alpha (discussed in Section 3.2.2) to be accurately calculated (Zaiontz, 2013). To reverse code, the original score needs to be "flipped", this is done by subtracting the original Likert score from 8 (if a 7-point Likert scale is used) i.e. 8 – [original Likert score] = [flipped score].

Analysing Likert Scale Results

The Likert scale is a commonly used ratings scale for surveys, which generates ordinal data - data that allows for the ordering or ranking of answers, but measuring the distance between answers is not possible (Allen & Seaman, 2007). In the case of ordinal data mean, standard deviation and any other parametric analysis based on the normal distribution are inappropriate statistical analysis techniques instead nonparametric procedures (based on rank, median and range) are more applicable, as well as distribution free methods such as frequencies and chi-squared statistics (Allen & Seaman, 2007). Boone and Boone (2012) advocate that for Likert-type data the following data analysis methods are pertinent:

- Using the mean and median to analyse central tendency
- The use of frequencies for variability calculations

It is pertinent that prior to the analysis and processing of the data acquired from the abovementioned research instruments, their reliability and validity should be considered.

3.2.2. Reliability and validity

In the quantitative research archetype, reliability speaks to the repeatability of experimental results and observations, whereas validity refers to the 'truthfulness' of the results i.e. whether the research accurately measures that which it is intended to measure (Golafshani, 2003). Cronbach's Alpha is a popular quantitative approach towards ascertaining the internal consistency or reliability of a survey instrument. The Cronbach Alpha coefficient (α), once calculated for a data set, can range between 0 and 1, where values greater than 0,6 signify good instrument consistency (Osborne, 2008). The coefficient is often used to test the reliability of the 22-item SERVQUAL instrument. Cronbach Alpha is strongly dependent on the number of items that make up the scale, and can often provide misleading reliability scores for scales comprising of a limited number of items (Tavakol & Dennick, 2011).

As a general rule of thumb, as the number of items in a survey or questionnaire increase so does the overall validity of the scale (Dell, 2015). In qualitative research, however, reliability and validity are characterized differently. It is identified that these concepts are mutually inclusive,

therefore it is put forth that once validity is established so is reliability (Golafshani, 2003). It is suggested that the validity of qualitative data can be obtained through the use of triangulation, as the traditional scientific methods often used in quantitative studies are unsuited (Golafshani, 2003). Triangulation is believed to strengthen a study by using multiple methods of data collection in an attempt to corroborate the obtained data results i.e. interviews are used in conjunction with observations (Golafshani, 2003).

In terms of interview validity Wengraf (2001) suggests that it can be built into the interview during the design phase. He puts forth that when designing the interview, it is wise to separate the IQs that relate to the same TQ. In this way the interviewee will find it harder to make connections between the various questions, thus strengthening the validity of the interview. Bias becomes more prevalent in the interview if the informant is able to identify the link between the IQs and the TQ (Wengraf, 2001). It is believed that once the informant becomes somewhat aware of the TQ and in essence the CRQ, their responses become based on their own logic and cease to be truthful responses to the IQs (Wengraf, 2001), which is undesirable.
In all cases it is apparent that the research tools are used to collect data on the study's participants. Electing said participants requires much deliberation, and is explored in the next section.

3.2.3. Sampling and informant selection

Sampling is the art of collecting information from a selected smaller group of subjects (the sample) in order to make inferences about the larger group (the population) (Som, 1996). This method is often considered advantageous, as it is less time consuming than analysing the entire population while still providing valuable results (Som, 1996). Sampling methods fall into two categories: probabilistic and non-probabilistic sampling (StatTrek, 2015). Probabilistic sampling is a calculated approach towards sampling where each member of the population has a known probability of being selected (Fowler, 2009). Non-probability sampling is a less calculated approach that comprises of convenience sampling, and voluntary sampling (StatTrek, 2015). A convenience sample is made up of individuals who are easy to reach, while voluntary sampling involves subjects who chose to become involved (StatTrek, 2015). Non-probabilistic sampling is advantageous as it is convenient and relatively low cost, however, the disadvantage of this method is that there is no true means of determining the extent to which the sample represents the population (Fowler, 2009).
In terms of selecting the sample of subjects for interviewing purposes, informants are chosen based on their knowledge of the topic at hand (Babbie, 2014), as well as their willingness to participate (voluntary or convenience sample). Babbie (2014) puts forth that informants willing to interact with outside investigators are uncharacteristic within their group and that this

marginality may bias the obtained results; therefore care should be taken when analysing the results.

3.3. Method

This section presents the actual method carried out by the researcher in the execution of the study. The project was conducted in 6 phases:

Phase 1: Establishing the research approach towards answering the research question (Section 3.3.1).

Phase 2: Developing the research instruments (the TQM questionnaire, the customer survey and the observations table) used for the acquisition of data (Section 3.3.2).

Phase 3: Executing a pilot study at a restaurant for the purpose of testing and, if need be, modifying the research instruments (Section 3.3.3) for the next phase of the study.

Phase 4: Collecting data, using the modified research instruments, for the full study from the sample restaurants (Section 3.3.4).

Phase 5: Processing the obtained data to make it suitable for analysis (Section 3.3.5).

Phase 6: Analysing the processed data (Section 3.3.6).

3.3.1. Phase 1: Research approach

Section 3.2.1 identifies that the research question dictates the research method; therefore for this dissertation the starting point is dictated by the research question. The question comprises of two parts, each of which requires the use of a different mode of inquiry. The TQM portion of the question necessitates an inductive exploration (Creswell, 2009) into the current QM practices implemented by the restaurant. The second portion demands an investigation of the customer's perception of the establishment's service quality, which can be measured using an existing instrument (the SERVQUAL instrument) therefore facilitating a non-experimental research approach.

Figure 2 graphically depicts the information presented in the preceding paragraph in a more detailed manner. It shows the process undertaken by the researcher to establish the optimal research method for the topic at hand. The figure uses the theory put forth by Creswell (2009) on research design, presented in Table 4, in conjunction with the researchers own approach to handling the research topic.

Step 5 of Figure 2 identifies that according to the researcher and the existing information on the topic, a mixed method research approach is best suited to investigate the topic under scrutiny. In Step 4, the figure pinpoints that for the qualitative portion of the research the use of observations and interviews is an effective approach in the acquisition of data. It is also depicted in Step 4 that the research topic offers an opportunity for the established SERVQUAL survey

instrument to be used, which is considered a quantitative research tool. Consequently, the succeeding section examines the development of the tools necessary for the methods of inquiry presented in Figure 2, Step 4.

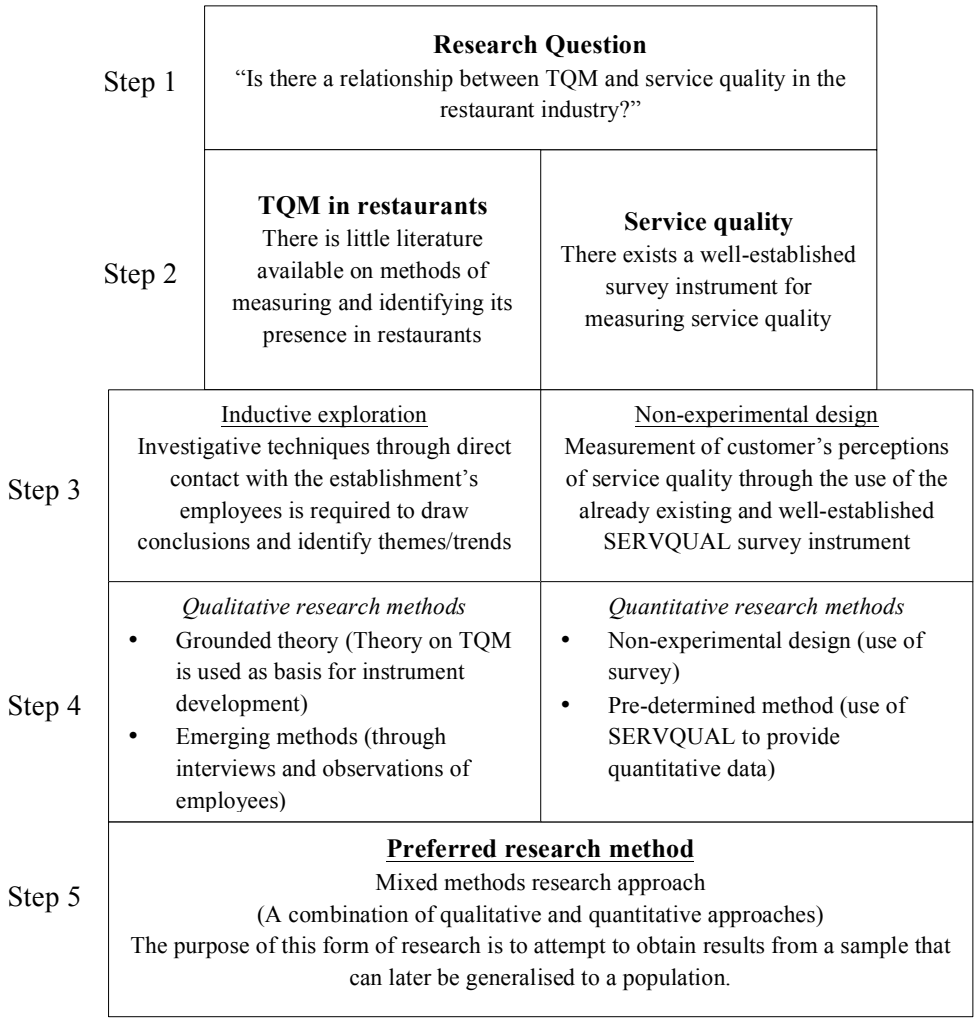


Figure 2: Diagram of the research method selection process for this dissertation

3.3.2. Phase 2: Research instrument development

This section describes the preliminary development of the three research instruments used in the study:

1. The TQM questionnaire used to examine the presence of TQM practices in the restaurants.
2. The observations table used in conjunction with the TQM questionnaire at the sample restaurants as a means of verifying the information obtained from the questionnaires.
3. The customer survey used to study the customer's perceptions of service quality at the sample restaurants.

3.3.2.1. The TQM questionnaire

The TQM questionnaire is the tool used to collect data on the current quality management practices implemented by the restaurant, by using the employee's understanding of the restaurant's operations. The instrument assesses the company's implementation of TQM by investigating the presence of the four main elements of TQM (customer focus, continuous improvement, employee empowerment and 7 tools of quality) within the business. The instrument is administered in the form of a face-to-face interview between researcher and employee, and is designed as an interview using the theory presented in Section 3.2.1.3. Only front-of-house employees, who have a direct impact on the customer's experience of service are questioned, i.e. waiters and managers. The motivation for the use of a one-on-one interview as opposed to a self-administered questionnaire is that the researcher would be able to control the line of questioning to ensure that the restaurant employees provide worthwhile responses (Wengraf, 2001)i.e. if the respondent veers off course, the researcher could re-ask the question in a more direct manner.

The interview content is drawn from the grounded theory on TQM presented in Section 2.5 therefore indicating the use of an anti-common-sense hypothetico-deductivist approach towards the design of the questionnaire (Wengraf, 2001).

Figure 3, represents the thought process applied during the design of the questionnaire, which followed the established guidelines presented by Wengraf (2001) for a moderately or heavily structured interview.

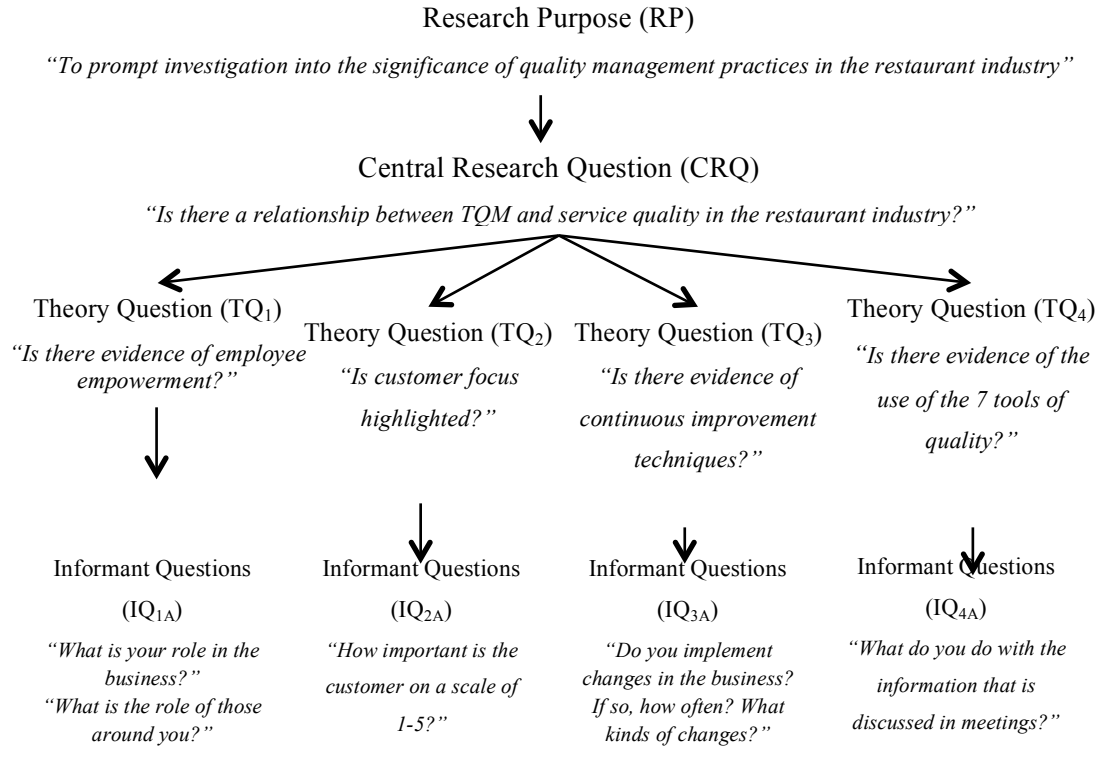


Figure 3: Formulation of the TQM questionnaire

The instrument design ultimately stems from the RP, which is satisfied only once the necessary information is assembled. Figure 3 demonstrates that the relevant information is acquired by asking the respondent the IQs, which originate from the theory. The IQs build a foundation on which the TQs lie and once the TQs are answered, a conclusion can be made about the CRQ. For this study, however, answering the central research question also requires additional input from another research instrument - one that looks at investigating the "service quality" portion of the CRQ, which is discussed later in Section 3.3.2.3.

TQ_1, TQ_2, TQ_3 and TQ_4 displayed in Figure 3 pertain to the four main elements, which make up the TQM framework. Since the instrument is designed around the four key elements of TQM, the TQs intend to identify the presence or lack thereof of: employee empowerment; customer focus; continuous improvement; and the 7 tools of quality (i.e. quality control techniques) within the restaurants. According to the model the informants are not directly asked the theory question, but instead are asked a number of questions offered in layman terms that ultimately lead to the answering of the TQ (as explained in Section 3.2.1.2). Thus, during the interview process, the exchange is made using the IQs. The instrument's questions are aimed at identifying the TQM practices without directly asking the respondents about specific TQM elements, so as to ward off bias. The TQs are broken up into a serious of IQs, which seem unrelated, in an attempt to obtain more objective responses (Wengraf, 2001). The IQs are paramount to the interview and their development is displayed in Table 6. The IQs were conceptualised by the researcher, and are founded on the knowledge acquired through the literature review as well as from the researchers' years as an undergraduate Industrial Engineer.

Table 6: Construction of the interview questions for the TQM questionnaire

Theory Question (TQ) *TQM Element*	**Informant Question (IQ)** *Interview Question*	**Reasoning**
Customer focus *"Is customer focus highlighted?"*	• What is the aim of the business? • How important is the customer on a scale of 1-5? • What do you understand about customer expectations? • What do you understand about customer requirements? • Which is more important?	To determine whether the establishment views the customer as paramount to the business's success and if it understands the importance of the customer. Examining the TQM approach to customer focus.

Continuous improvement *"Is there evidence of continuous improvement techniques?"*	• If there is a complaint, what do you do about it? (How do you go about dealing with it?) • How do you prevent these issues? • Do you implement changes in the business? If so, how often? What kinds of changes? • Why do you implement these changes? • Do you compare yourselves with other restaurants? Why, and with whom? • What do you compare?	These questions have been asked to examine if there is a general presence of continuous improvement activities such as the use of the PDCA cycle and/or benchmarking to strive for improved quality levels and customer satisfaction.
Employee empowerment *"Is there evidence of employee empowerment?"*	• What is your role in the business? • What is the role of those around you? • What are your duties? • Do you have staff meetings? • How often? • What is discussed?	To identify whether employees have been given important tasks in the workplace, and whether they are considered vital elements in the company's quality management practices. Also look at staff meetings, and what is discussed in the meetings to determine each staff member's level of involvement in the running of the business.
Quality control methods *"Is there evidence of the use of the 7 tools of quality?"*	• What is quality? What do you understand about quality? Definition? • What do you do with the information that is discussed in meetings?	Aim to identify the business's understanding of quality, and the presence of the 7 quality management tools (Cause-effect diagrams, checklists, control charts, scatter diagrams, histograms, and Pareto analysis). The questions also look at the company's overall understanding of the meaning of quality, if they can define it then they are more likely to work towards achieving it.

The preliminary TQM questionnaire comprises of the 12 questions presented in Table 6 and an additional 4 "background" questions. The 4 background questions exist for the purpose of learning more about the respondent's standing within the restaurant and to determine, at a later stage, the impact the employee's background may have had on their given answers. The instrument to be used during the interviews is available in Appendix B.1. The 12 IQs are broken down even further in the questionnaire, through the use of follow up questions, which are treated as separate entries. The IQs are dispersed throughout the questionnaire and are not asked in the structured format as indicated in Table 6, for the purpose of eliminating the potential for bias. Wengraf (2001) identifies that if the IQs that pertain to the same TQ are grouped together,

the informant may become aware of their link to the TQ and answer the questions in a subjective manner.

3.3.2.2. The observations table

Section 3.2.1.1 presented the benefits of making observations in the research environment, for that reason, a structured observations table is deemed valuable in the collection of data for the study at hand. The table provides a secondary means of acquiring data about the restaurant's TQM practices, thus providing a method for the triangulation of data and a means of validating the interview results. The purpose of the instrument is to stress information that may not have been acknowledged through the employee interviews. The development of the observations table is presented in Table 7, which exhibits the observation elements (observations to be made) and the reason for their inclusion (justification). The observations table is to be used at the same time the interviews are conducted at the restaurant. The finalised observations table is available for view in Appendix B.2.

Table 7: Observations table development

Observations to be made	Justification
Evidence of the presence of the 7 tools of quality	There may be evidence of the use of checklists and/or other tools of quality in areas (e.g. bathrooms/ kitchen) of the workplace that the staff have failed to mention. Assessing the presence of the seven tools of quality (1 of the 4 key elements of TQM). This aims to identify if the establishment makes use of quality control methods
Presence of work teams or groups	This is an aspect of employee empowerment (1 of the 4 key elements of TQM) and therefore a justification of the presence of TQM.
Observe the procedures undertaken when a complaint or issue occurs. Who do they go to? Is there a hierarchy?	The way in which the staff go about handling complaints will shed light on the existence of employee empowerment in the workplace
Staff's interactions with the customers	This will allow for a first hand experience and unbiased interpretation of the value of the customer in the eyes of the employee as viewed by an outsider. Assessing the level of customer focus (1 of the 4 key elements of TQM).

3.3.2.3. The customer survey

Inferences can be made about the "service quality" component research question by measuring the customer's perceptions of the restaurant's service quality, thus, the customer survey is designed as a means of acquiring said information.

The survey is targeted at the customers dining in the sample restaurants, because it aims to measure their outlook on the service they actually receive. The instrument comprises of two parts - the demographic-type questions (part A) and the service quality questions (part B). The demographic-type questions attempt to understand the customer and their principles when it comes to quality. These questions are included with the intention of possibly providing the researcher with important information about the sample during the analysis stage of the research i.e. anomalies in the results may be attributed to the respondents' age or disposition towards quality. The construction of "part A" of the customer survey is displayed in Table 8.

Table 8: The justification of the selected customer background questions

Question	Rationalisation
What is your age?	Allows for conclusions to be made about different generation's tolerances towards poor service quality, or if age makes no difference at all.
What are your top 3 favourite restaurants?	This places the customer in a context with regards to their expectations of restaurants, based on the restaurants they tend to favour.
Failure in which of the following aspects would you consider to be unforgivable? Food or service.	This is to establish the aspect of the restaurant experience that is deemed most important to the customers.

"Part B" of the survey involves measuring the customer's perceptions of service quality, for which there already exists the well-established SERVQUAL instrument shown in Section 2.4. Bojanic and Rosen (1994) developed a SERVQUAL instrument (see Appendix B.3) specifically for restaurant application, which was explored in Section 2.4.2. The validity, reliability and applicability of the instrument were examined in Section 2.4.1 and it is therefore decided that 'Part B' of the customer survey will make use of their "restaurant ready" SERVQUAL instrument. The customer survey in its completed form, comprising of part A and B, is available for view in Appendix B.4.

3.3.3. Phase 3: Pilot study

This section examines the pilot study that was conducted at a restaurant located in Johannesburg. The restaurant was selected primarily due to the researcher's familiarity with the establishment and its owners, which allowed for ease of access to information. The aims and results of the pilot study are presented in the sections that follow, preceding this however, is an inspection of the ethical considerations taken during the course of the research because of the involvement of human subjects.

3.3.3.1. Ethical considerations

The report is written so that the identity of the restaurants and their employees remain anonymous. The names of the restaurants are not mentioned and their identity cannot be inferred from the presented information. The same can be said for the identity of the restaurant employees.

During the research interviews the employees i.e. the respondents, were informed of the nature of the study, and if they wished to participate in the study were requested to complete a consent form. It is the responsibility of the researcher to protect the rights and physical, social and psychological welfare of the informants; therefore the consent form (signed by informant and researcher) guaranteed the anonymity of the informants. Only willing, un-coerced informants participated in the study, and were made aware of their right to withdraw from the study if they felt uncomfortable. The research followed the code of ethics as set out by the university's Human Ethics Research Committee (non-medical), and received clearance from the ethics committee. Appendix B.5 contains the documents required for ethics clearance as well as the ethics clearance certificate that was granted to the researcher by the committee.

3.3.3.2. Pilot study – aims and results

A detailed write-up of the pilot study is available for view in Appendix B.6, nevertheless, a summary of the aims, method, and results of the study are presented below. Due to the nature of the research, and the fact that studies are not common in the restaurant industry in South Africa, it was necessary to "test" the study on a smaller sample so as to improve on the design of the study before continuing with the full-scale research project that encompassed a larger sample.

The pilot study was carried out with the purpose of identifying any potential flaws in the research instruments developed in Section 3.3.2. The study was conducted over a period of two and a half weeks, during which 23 customers and 4 front-of-house staff members (i.e. waiters, floor managers and owners) partook in the research.

The sample customers were selected by approaching 50 customers that entered the restaurant over a 5-day period. Of the approached customers only 23 were prepared to answer the survey.

The customers were requested to complete the survey (see Appendix B.6) in private as they sat at their table, the intention of which was to assess their attitude towards to survey questions.
The restaurant employees were invited to participate in a one-on-one interview with the researcher, in which the TQM questionnaire (see Appendix B.1) was used. All the front-of-house-employees were approached, however, only 4 were interested in participating. The purpose of carrying out the interviews was to assess whether or not the respondents understood the questions, and if the instrument manifested the desired responses. Participation in the study was completely voluntary; therefore the sample was based exclusively on the participant's willingness to participate.

The observations table (see Appendix B.2) was also used during the study to record the current state of the restaurant, and to ensure that it encompassed all the vital observation topics necessary to make valuable conclusions. Thus, the overall aim of the pilot study was to:

- Assess the average time necessary to conduct the interviews
- Establish the applicability of the research approach and research instruments in the restaurant's working environment
- Assess whether or not the instruments where providing the information they were designed to deliver

An analysis of the results obtained from the pilot study (see Appendix B.6) allowed the following conclusions to be made:

- A new and improved TQM questionnaire was required
- The improved TQM questionnaire was designed based on the pilot study findings and is available for view in Appendix B.7.
- The poor customer survey response rates were attributed to the length and tediousness of 'Part B' of the customer survey i.e. the 22-item SERVQUAL instrument, as it was often left incomplete
- The customer survey instruments required a 're-work' so as to increase response rates and decrease the number of incomplete surveys, thus the instrument was condensed and altered, and is presented in Appendix B.8.
- The observation table was identified to be a comprehensive means of recording the current state of the restaurant, however, a minor adjustment was made to the table whereby an additional observation element was added namely "Staff meeting?" which prompts the observer to record whether or not they occur. See Appendix B.9 for the finalised observations table.
- The customer surveys received a higher response rate when distributed by the waiters than by the researcher.

- The researcher's presence in the staff meeting seemed to affect the natural meeting proceedings. Employees appeared to be uncomfortable with the researcher's presence and seemed to feel obligated to speak in English for the benefit of the researcher. Therefore, the observations made during the meeting are deemed to be prejudiced.

3.3.4. Phase 4: Full study

This phase encompasses the processes implemented by the researcher for the full study. Each component of the full study is assigned it's own section, which follow the exact order as executed by the researcher.

3.3.4.1. The research sample

The sample for the study is made up of three elements: the restaurants under scrutiny; their employees; and their customers.

Restaurants

The study was conducted at 4 different restaurants dispersed around the Johannesburg area. The research sample was made up of owner-run restaurants that were not under the direct control of a franchisor. The restaurants were selected based on the following criteria:

- Their product offerings were similar
- They existed within the same restaurant class (casual dining)
- They allowed the researcher access to the establishment and its employees

From this point forth, to ensure that anonymity is maintained, the four restaurants are referred to as: Restaurant A, Restaurant B, Restaurant C, and Restaurant D.

Restaurant employees

Convenience sampling discussed in Section 3.2.3 was used to select the TQM interview participants. The sample was limited to 8 employees per restaurant, as this was the maximum number of employees available for interview at Restaurant C. It was decided that for consistency purposes this sample value should be the same for each restaurant. The sample consisted of front-of-house staff (waiters), with the inclusion of at least one manager. Restaurant A, B and D are larger than Restaurant C and therefore employ a greater number of waiters. The selected sample of 8 employees consequently represents roughly 50% of the total front-of-house staff for these restaurants, as opposed to Restaurant C where the sample represent 100% of the total front-of-house staff. All restaurant employees were made aware of the purpose of the research, and were issued with a PIS (See Appendix B.5.1), which they were able to read in their own time. Those interested in participating in the research approached the researcher of their own accord and were not coerced in any way.

Customers

The customer survey participants were chosen by employing the convenience sampling methodology (Section 3.2.3). Random diners in the sample restaurant were provided with a survey and pen, and left in private to answer the survey if they felt willing. This method ensured that customers were given the freedom to consent to or deny participation without feeling pressured. 50 customer surveys were obtained from each restaurant - a value selected by the researcher based on the pilot study findings. A sample size of 50 was believed to be large enough to draw meaningful conclusions about each restaurant, but small enough so as to not inconvenience the restaurant.

3.3.4.2. Data Collection

The TQM interviews

The interview phase per restaurant spanned a period of roughly 10 days. The period was dependent on the employees' schedules, availability and how busy the restaurant was.

The willing participants were taken to a private location to be interviewed by the researcher. They were first requested to read and sign the consent form (Appendix B.5.3), before the interview could commence. The researcher manually documented the responses using the TQM interview template (Appendix B.10) the first 7 questions of the interview instrument are displayed in Table 9.

Table 9: A table representing the first 6 questions of the instrument used to conduct the TQM interviews

PRELIMINARY QUESTIONS	
QUESTION	**RESPONSE**
1. Do you consent to being voice recorded? (Yes/No)	
2. What is your job title?	
3. What do you do here?	
4. How long have you worked here?	
TQM QUESTIONS	
5. What is the aim/goal of the business??	
6. How important are the needs of the customer on a scale of 1-5?	
a) Why?	

Some interviews were also recorded using a voice-recorder; however this depended on the participant's preference and whether or not they gave consent. The interview followed the

structure dictated by the template, and if the respondent failed to understand or correctly answer a particular question it was re-phrased by the researcher. At the conclusion of the interview, the responses were transcribed onto a password-protected laptop. The actual names of the employees were not recorded; instead they were assigned the names "Employee 1" through "Employee 8". An example of an interview transcript from Restaurant B is available for view in Appendix B.11

Observations

Observations were made in a structured fashion through the use of the observations table (available in Appendix B.9). In all cases, the researcher was not allowed access to the kitchen therefore only the front-of-house activities were observed. The researcher did not attend the staff meetings, but viewed them from a distance for the reasons identified in Section 3.3.3.2. Appendix B.12 shows the observations table for Restaurant A.

Customer surveys

The waiters at the respective restaurants distributed the customer surveys to random customers in the establishment– a method deemed successful by the pilot study (Section 3.3.3.2.). The waiters briefly informed the customers of the study and were invited, if interested, to answer the survey. The customers were left with a copy of the survey along with a pen, and given the opportunity to complete the survey in private. The surveys (complete or incomplete) were then collected by the waiters and given to the researcher. The process continued until 50 customer surveys were collected at each of the sample restaurants. The results were subsequently captured onto a password-protected laptop to be examined at a later stage; an example of the captured data for Restaurant C is available in Appendix B.13.

3.3.5. Phase 5: Data processing

Before analysis can take place, the raw data captured in Phase 3 requires processing. This phase presents the methods taken for the treatment of the TQM interview and the customer survey data.

3.3.5.1. The TQM interviews

Content analysis, specifically proximity analysis presented in Section 3.2.1.2, was used to process the interviews in an attempt to allocate a numerical value to the qualitative responses. The method involved scoring the obtained interview responses against an ideal answer, which was formulated by the researcher, and based on the TQM literature presented in Section 2.5.1. The given answers could be awarded a score of '0', '0,5' or '1' depending on how close they were to meeting the ideal answer. The scoring procedure worked as follows:

- A score of '0' means the response did not meet the ideal answer in any way.
- A score of '0,5' implies that the ideal answer was partially met.

- A score of '1' signifies that the given response met the criteria of the ideal answer.

The responses were viewed holistically, and were scored based on the overall theme that emerged as opposed to the mention of specific words. Table 10 represents a portion of the analysis table (representing the customer focus portion of the interview), the table in its entirety is available for view in Appendix B.14. The scores for each TQM element were summated, to give a sub-total score per element (Table 10). Subsequently, the sub-totals were added together to give a *total* TQM score per employee, and this was done for all employees across all restaurants. Finally, the *overall TQM* score *per restaurant* was calculated by averaging the respective 8 employee total TQM scores.

Table 10: Content analysis tables for Employee 2 specifically pertaining to Customer Focus

ANALYSIS OF TQM QUESTIONNAIRE						
TQM Element	***Questions***	***Employee 2***				
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***	Validation (NOTES)
Customer Focus	**5. What is the aim/goal of the business??**	To satisfy the customer. Meet and exceed their expecations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point			
	6. How important are the needs of the customer on a scale of 1-5?	5	5'=1 ; anything below = 0			
	7. Why?	The company would not exist if it weren't for its customers	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point			
	8. Do you <u>KNOW</u> what customers want from the restaurant?	Yes	Yes=1 ; No=0			
	9. <u>HOW</u> do you know what they want?	We hand out surveys and we investigate. We ask them. All operations within the company are focused on satisfying the customer.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point			
	10. What <u>DO</u> they expect from the restaurant?		No score is allocated to this question, as the asnwer cannot be determined by the researcher but by the customer. The of the question is to identify whether or not the restaurant's employees are aware of the customer's expectations, and potentially investigate whether the responses obtained through the service quality survey aligns with the responses given here.			
TOTAL			5			

Ideal sub-total score for Customer Focus (Max available mark)

Actual sub-total score for Customer Focus achieved by Employee 2

3.3.5.2. Observations

The observations collected from the four sample restaurants were recorded using the observation table, thus resulting in the manifestation of four separate observation tables. To increase the ease in which analysis of the observations could be made, it was decided that all restaurant observations would be transferred to a single comparative table where a summary of the observations would be displayed. This single condensed observations table is displayed in Table 11.

Table 11: The processed observations table

	SUMMARISED FINDINGS			
OBSERVATIONS	**Restaurant A**	**Restaurant B**	**Restaurant C**	**Restaurant D**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)				
Presence of work teams or groups. Staff meeting?				
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?				
Staff's general interaction with the customers.				

3.3.5.3. Customer survey data

The data from the surveys was translated into tables, using Excel, to allow the processing and analysis of the data to be conducted with greater ease. A large spreadsheet was created that combined all survey responses for each restaurant to potentially allow for correlations to be made between each question at a later stage. Table 12 displays a portion of the spreadsheet. Customers were numbered 1 through 50 for each restaurant, and each restaurant's data was captured on a separate sheet.

A summary of the key elements of the processing is displayed below.

1. If customers answered questions incorrectly, the researcher used logic to correct the data. In some cases, where the errors were too significant, the customer was removed completely from the data set. This is explained in greater detail in the subsequent points.
2. The responses to Questions 1, 2, & 3 were tabulated and measured using frequencies; '1' is allocated to the column where a response is recorded. (See Appendix B.15 for details of the processing for these questions)
3. Question 4's exact responses are recorded in a table, where a tally of the number of times the customers selected the sample restaurant is recorded.
4. Question 5 required no processing, and the exact customer responses are reflected in the spreadsheet.
5. The answers to Question 6 were recorded by assigning a '1' to the age-group column in which the customer's response belonged; allowing for the summation of the age-group columns.
6. Questions 7, 8 & 9 are considered vital survey questions, as they are the means by which the establishment's service quality is to be measured; for this reason processing of these questions was conducted in a more thorough manner.
    a. Questions 7 & 8 each comprise of 5 questions extracted from the SERVQUAL instrument. Two of the 5 questions namely those that test 'responsiveness' and 'empathy' are negatively worded e.g. "It is not realistic for customers to expect prompt service from restaurant employees"; and "It is unrealistic to expect employees to know what the needs of their customers are".
    b. This implies that when customers rate their response, their ratings are likely to reside on the opposite end of the spectrum compared to the responses obtained through the positively worded questions i.e. customers would select "strongly disagree" as opposed to "strongly agree". For this reason, the scores obtained from the negatively worded questions require reverse coding (discussed in Section

3.2.1.3) to ensure coherence amongst the responses obtained from the 5 SERVQUAL questions.

- If data was missing for Questions 7 & 8 (on account of the customer failing to answer a question) the drawback was approached with the following logic: If there was more than 1 missing data point, the customer was removed completely from the study. If there was only 1 missing data point, the mode value of the particular customer's responses was used to replace the missing data point. The former method is known as 'list-wise deletion' in which all data from the participant is removed (Sauro, 2015). The latter is known as 'common-point imputation' where the most popular point is used to replace the missing data point (Sauro, 2015).
- The responses obtained for Question 9, required no processing and were simply reproduced in the spreadsheet.

Table 12: A portion of the large spreadsheet containing the survey responses for 50 customers at a sample restaurant.

	Q 1 & Q2 & Q3								Q4			Q 5		Q6							Q7 Q8 Q9
	1: How often do you visit restaurant?		2: Why?				3: Reason for Other		4: What are your favourite restaurants?					Age group							
Customer	*First Time*	*More than Once*	*Service*	*Food*	*Food and service*	*Other*	*Convenience*	*Environment*	*1st*	*2nd*	*3rd*	5 a: What level of influence does the **quality of service** have on revisiting a restaurant?	5 b: What level of influence doe the **quality of food** on revisiting a restaurant?	*18-24 years old*	*25-34 years old*	*35-44 years old*	*45-54 years old*	*55-64 years old*	*65-74 years old*	*75-older*	...
1																					
2																					
3																					
...																					
50																					

3.3.5 Phase 6: Analysis

The final phase of the method comprises of an analysis of the processed data. The following text describes the means by which the results were evaluated.

1. Content analysis was conducted on each of the TQM interviews, the results of which were condensed to produce a single TQM score per restaurant, by averaging the total TQM scores for the 8 employees at each restaurant. This allowed for a holistic view of the presence of TQM within each establishment, see Section 4.2. The scores per TQM element were normalised to reduce the potential for misleading results, as some TQM element scores were higher than others due to the fact that they are comprised of more questions, see Section 4.2. The normalised scores were compared to determine the restaurant with the highest TQM score. See Section 4.2
2. A further exploration of the TQM scores was conducted by investigating the 4 elements of TQM, which contribute to the total TQM score. The scores were compared amongst the sample restaurants (see Section 4.2).
3. The demographic type questions (Questions 1,2,3,4 & 6) obtained from the customer surveys were summarized for each restaurant and compared to build a context for the results produced by the SERVQUAL-type questions i.e. Question 7 &8. See Section 4.3.1.
4. The SERVQUAL based questions were condensed to provide a single SERVQUAL score per restaurant, which was used to compare the levels of service quality between restaurants. All results pertaining to the customer responses were represented as a percentage of the sample at each restaurant to eliminate deceptive results, due to the fact that the sample size varied between each restaurant. See Section 4.3.2.
5. An investigation into the 5 dimensions of quality that make up Question 7 and 8 was also conducted, by examining the gaps between the customer perceptions and expectations for each restaurant. See section 4.3.2.
6. The results of Question 9 of the survey were compared between each restaurant to identify the overall satisfaction levels of the customers for the sample restaurants. See Section 4.3.3.
7. The results of the observations table were used as a measure against which the TQM and SERVQUAL results could be compared i.e. a means for triangulation. (See Section 4.4)
8. The results of Question 8 of the survey i.e. the customer perception scores, were compared against the respective Question 9 results with the intention of validating the obtained perception scores (See Section 4.5)

9. Lastly, the condensed TQM scores and the respective SERVQUAL scores were compared for each restaurant to identify whether or not there is a correlation between the TQM and SERVQUAL scores (See Section 4.5).
10. On the basis of this comparison, the conclusion will be reached on whether there is a relationship between TQM practices and service quality in the restaurant industry.

Chapter 4: Results and Analysis

4.1. Introduction

This chapter presents the processed results of the full study along with an analysis of the findings. The two sections, which are often treated separately, are presented together in this chapter to benefit the reader. It is believed that combining them allows the reader to construct a more cohesive picture of the findings and what they represent.

Firstly, the results of the TQM interviews are shown followed by an analysis of the obtained data. Subsequently, the results attained from the customer surveys are examined and compared. The observations are presented and compared to the interview and customer survey findings. Lastly, the final comparative analysis of the restaurants' TQM and SERVQUAL results is displayed.

4.2. TQM Interviews

This section includes the following:

- The content analysis table of Employee 2 from Restaurant B (Table 13 through Table 17). Due to the size of the table not all the tables are included in the dissertation, however, Appendix C.1 contains a secondary content analysis table for view (of Employee 1 from Restaurant A).
- The numerical results of the content analysis conducted on the interviews (Table 18 to Table 21)
- The final comparative table of the restaurant's TQM scores (Table 22), followed by a graphical breakdown of the results table.
- Normalised TQM results (Table 23)
- Comparative frequency tables that explore the TQM element scores obtained by the restaurants (Table 24 to Table 27), which are subsequently graphically represented by Figures 5, 6,7, and 8.
- A summary of the results obtained from the preliminary demographic-type questions answered by the respondents prior to the start of the TQM interview along with the corresponding TQM scores per respondent (Table 28)

Table 13: Content analysis of Employee 2's interview at Restaurant B

Restaurant B					
TQM Element	***Questions***	**Employee 2**			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Employee Empowerment	**3. What do you do here?**		No score allocated to this question. As it is merely used to provide context. It is used to better understad the duties of the staff member, which may help understand the employee's level of empowerment.	I serve customers.	
	18. What, in your opinion, is your purpose in the operation of the business?	To add value. Assist in operations to achieve superior quality/excellent quality and maximise customer satisfaction.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	I make sure I make the customer happy, make sure they get their food on time and take order correctly to not get in trouble with manager and keep customer happy.	1
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	To work together to achieve the business's goal. Teamwork. Help eachother.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	It's the same. To make the customers happy and to work as a team.	1
	21. Have you had any training in the restaurant industry?		No score allocated to this question. The question's purpose is to establish whether an employee's knowledge of TQM or any other quality management practice is the result of the restaurant's training procedures or not.	Yes.	
	22. Have you been trained by this restaurant?	Yes	Yes=1 ; No=0	Yes, before you start here you have to train to know the systems here even if you worked as a waitress somewhere else before. We learnt to be fast how to take their order and service. Give the customer their food, the way to present the food and their drinks to them.	1
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	Problem solving. Addressing the issue. Authority to make decisions to ammend the problem.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	I let my manager know, then my manager will sort it out. I go straight to the manager.	0
	24. Are there problems that you cannot deal with?	No	No= 1 ; Yes=0	Yes.	0

Table 14: Content analysis of Employee 2's interview at Restaurant B continued

TQM Element	*Questions*	Employee 2 continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Employee Empowerment	**25. Why? What can the manager do that you cannot?**		No score allocated to this question. As it is merely used to provide context. It is used to better understad the staff member's authority.	If it's about the food, then the manager will go to the kitchen ans speak to the kitchen manager.	
	27. Do you have staff meetings?	Yes. Regularly. (at least weekly)	Yes=1 ; Sometimes= 0,5 ; no = 0	Yes.	1
	28. How often?		No score has been allocated to this answer as it is accounted for in the previous question.	We make it 2 times a week for important things.	
	29. What is discussed?	Identify presence of empowered employees. Do they problem solve? Do they discuss issues/ complaints and how to solve them? Do they show evidence of increased involvement in decision making. Do the employees discuss ways of improving the functioning of the business?	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	We talk about how to handle our customers and we talk about neatness. And how to make sure out customers are always happy so they can come back.We must make sure we are humble and patient, always keep a smile on your face and speak to them nicely.	0,5
	35. Would you say there is presence of teamwork here?	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0	Yes.	1
	36. Why?	It is the company's culture. Focus on teamwork and its benefits. Identify the presence of work teams/quality circle amongst employees.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	If I'm busy, we need to be sure that another waiter will help my tables to ensure that the customer is always happy. If a table is dirty we have to help each other to clean so that the customer doesn't complain. Then the customers see that we are helping each other.	0,5
SUB TOTAL			**9**		**6**

Table 15: Content analysis of Employee 2's interview at Restaurant B continued

TQM Element	*Questions*	Employee 2 continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Customer Focus	**5. What is the aim/goal of the business??**	To satisfy the customer. Meet and exceed their expecations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Our aim is to make sure our customers are always happy, and to bring more customers through our service and make sure our food is always the best. We don't have pre-prepared food, everything is made to order, to make sure the customers get the best quality.	1
	6. How important are the needs of the customer on a scale of 1-5?	5	5'=1 ; anything below = 0	5.	1
	7. Why?	The company would not exist if it weren't for its customers	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Because the customers come here knowing that they want something, and if they don't get it they will be unhappy.	0
	8. Do you <u>KNOW</u> what customers want from the restaurant?	Yes	Yes=1 ; No=0	Our food includes everyone,we have variety of food. We also have healthy food, we accommodate people that look after their bodies.	0
	9. <u>HOW</u> do you know what they want?	We hand out surveys and we investigate. We ask them. All operations within the company are focused on satisfying the customer.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	You can see from the way the customer speaks to you, then I know maybe to suggest a certain item.	0,5
	10. What <u>DO</u> they expect from the restaurant?		No score is allocated to this question, as the asnwer cannot be determined by the researcher but by the customer. The of the question is to identify whether or not the restaurant's employees are aware of the customer's expectations, and potentially investigate whether the responses obtained through the service quality survey aligns with the responses given here.	They expect: • A nice welcome • A table • Service • Food • Drinks • The most important thing is the service	
SUB TOTAL			**5**		**2,5**

Table 16: Content analysis of Employee 2's interview at Restaurant B continued

Employee 2 Continued					
TQM Element	**Questions**	***Ideal Answer***	***Scoring Procedure***	***Given Answer***	***Score***
Continuous Improvement	**11. Do you implement changes in the business? (In terms of operations).**	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0	Yes.	1
	12. If so, how often?	Regularly. Changes should be made on a continuous basis to ensure continuous improvement. (Regularly=once a month)	Regularly=1; not=0	NA	0
	13. What kinds of changes?	Operations and/or product offering and/or service quality.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Menu, sometimes. In terms of service. The way we take our orders is still the same. We upgrade our coffee system so that you get the best coffee. Service at the bar.	1
	14. Why do you implement these changes?	To increase standards of quality. Improve service levels and customer satisfaction. Increase profitability.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	• So that the customer always gets the best service.	0,5
	15. Do you ever have customer complaints?		No score is allocated to this question, as it's purpose is to introduce the following question. It has no value in establishing the presence of TQM in the restaurant.	Yes.	
	16. What do they complain about?		No score allocated to this question. As it is necessary to provide context. It is used to better understad the customer and create links between the TQM based questionnaire and the customer surveys. It will showcase in the discussion of the results obtained.	Mostly when it's busy the food could take long to come out the kitchen. Customers expect their food to take 10-15 minutes, but sometimes it take 20 minutes. When its busy we let the customer know when they order that the food will take longer.	
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	Investigate the complaint by identifying the reason for the complaint and eliminating the cause i.e. from the source. If possible. Implementing improvements.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Make sure that the customer knows how long the food is going to take to arrive.	0,5
	31. Do you compare yourselves with other restaurants?	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0	Yes.	1

Table 17: Content analysis of Employee 2's interview at Restaurant B continued

Employee 2 Continued					
TQM Element	**Questions**	***Ideal Answer***	***Scoring Procedure***	***Given Answer***	***Score***
Continuous Improvement	**32. Why?**	To improve company. Investigate the methods that make the competitor superior and apply what was learnt to company operations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	We must make sure we keep our customers.	0,5
	33. With whom?	Companies that are best in their field. Better than the company in question in some aspects. Competitors.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	With Tashas.	1
	34. What do you compare?	Service quality, operations (efficiency), product offerrings.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	We compare that we are busy, and they also have good waiters like us and the neatness of the waiters.	1
SUB TOTAL			9		**6,5**
Seven Tools of Quality	**17. Do you know the number of customer complaints per day/week/month?**	Yes. (Looking for them to state that they record the number)	Yes=1 ; No=0	I don't really know a number. We don't keep a record.	0
	20. What is quality? How would you define it?	Product quality and service quality.The quality of the food is determined by its ability to fulfil its inferred specifications or menu description. Service quality is more user/ consumer dependent and its definition is a combination of "value for price paid". (Thus once a company establishes their definition of quality for the purpose of their business, they can then begin to invest in various means of achieving the level of quality they desire).	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	It is something that is genuine. It isn't fake.	0
	30. What do you do with the information that is discussed in meetings?	Record it. Make graphical representaion of the information in order to contInually reflect on the information and improve on/identify new issues. Implement change.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	We practice what we discuss on the floor.	0,5
SUB TOTAL			3		**0,5**
GRAND TOTAL			**26**		**15,5**

Table18: Results of the content analysis of the TQM interviews for Restaurant A

TQM Element	*Questions*	**Scores: Restaurant A**								
		Employee 1	*Employee 2*	*Employee 3*	*Employee 4*	*Employee 5*	*Employee 6*	*Employee 7*	*Employee 8*	*Average Total*
Employee Empowerment	18. What, in your opinion, is your purpose in the operation of the business?	1	0,5	0	1	1	0	0	1	
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	1	0,5	0	1	0,5	0	0	0,5	
	22. Have you been trained by this restaurant?	1	1	0	1	1	1	1	0	
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	0,5	0,5	0,5	0,5	0,5	0	0,5	1	
	24. Are there problems that you cannot deal with?	0	0	0	0	0	0	0	1	
	27. Do you have staff meetings?	1	1	1	1	1	1	1	1	
	29. What is discussed?	0,5	0,5	0,5	1	1	0,5	1	1	
	35. Would you say there is presence of teamwork here?	0	1	1	1	1	1	1	1	
	36. Why?	0	0,5	0,5	1	1	0,5	0,5	0,5	
Sub Total	**9**	**5**	**5,5**	**3,5**	**7,5**	**7**	**4**	**5**	**7**	**5,60**
Customer Focus	5. What is the aim/goal of the business??	1	1	0	1	1	0	0	1	
	6. How important are the needs of the customer on a scale of 1-5?	1	1	1	1	1	1	1	1	
	7. Why?	0,5	1	1	1	0,5	0,5	1	1	
	8. Do you KNOW what customers want from the restaurant?	1	1	1	1	1	1	1	1	
	9. HOW do you know what they want?	0	0,5	0,5	0,5	0,5	0	0,5	0,5	
Sub Total	**5**	**3,5**	**4,5**	**3,5**	**4,5**	**4**	**2,5**	**3,5**	**4,5**	**3,80**
Continuous Improvement	11. Do you implement changes in the business? (In terms of operations).	0	1	0,5	1	0,5	1	0	1	
	12. If so, how often?	0	1	0	1	0	0	0	1	
	13. What kinds of changes?	0	0,5	0,5	0,5	0,5	1	0,5	1	
	14. Why do you implement these changes?	0	0,5	1	1	0,5	0,5	0,5	0,5	
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	0,5	0,5	1	0,5	0,5	0,5	1	1	
	31. Do you compare yourselves with other restaurants?	1	1	1	1	0	1	1	1	
	32. Why?	0	1	1	0,5	0	1	1	1	
	33. With whom?	1	1	1	1	0	0	1	1	
	34. What do you compare?	1	1	0,5	1	0	1	1	1	
Sub Total	**9**	**3,5**	**7,5**	**6,5**	**7,5**	**2**	**6**	**6**	**8,5**	**5,90**
Tools of Quality	17. Do you know the number of customer complaints per day/week/month?	0	0	0	0	0	0	0	1	
	20. What is quality? How would you define it?	0	1	0,5	0,5	0,5	1	1	1	
	30. What do you do with the information that is discussed in meetings?	0,5	0,5	0,5	0,5	0,5	0	0,5	0,5	
Sub Total	**3**	**0,5**	**1,5**	**1**	**1**	**1**	**1**	**1,5**	**2,5**	**1,30**
TOTAL	**26**	**12,5**	**19**	**14,5**	**20,5**	**14**	**13,5**	**16**	**22,5**	**16,60**

Table 19: Results of the content analysis of the TQM interviews for Restaurant B

TQM Element	*Questions*	**Scores: Restaurant B**								
		Employee 1	***Employee 2***	***Employee 3***	***Employee 4***	***Employee 5***	***Employee 6***	***Employee 7***	***Employee 8***	***Average Total***
Employee Empowerment	18. What, in your opinion, is your purpose in the operation of the business?	1	1	1	1	0,5	1	1	1	
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	0,5	1	0,5	0,5	0,5	1	0,5	0,5	
	22. Have you been trained by this restaurant?	0	1	1	1	1	1	1	1	
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	1	0	0,5	0	0	0	0	0,5	
	24. Are there problems that you cannot deal with?	0	0	0	0	0	0	0	1	
	27. Do you have staff meetings?	1	1	1	1	1	1	1	1	
	29. What is discussed?	0,5	0,5	1	0,5	0,5	1	0,5	1	
	35. Would you say there is presence of teamwork here?	1	1	1	1	1	1	1	1	
	36. Why?	1	0,5	1	1	1	1	1	1	
Sub Total	**9**	**6**	**6**	**7**	**6**	**5,5**	**7**	**6**	**8**	**6,44**
Customer Focus	5. What is the aim/goal of the business??	1	1	1	0,5	0	0,5	1	1	
	6. How important are the needs of the customer on a scale of 1-5?	1	1	1	1	1	1	1	1	
	7. Why?	0	0	1	0,5	1	1	1	1	
	8. Do you KNOW what customers want from the restaurant?	1	0	1	1	1	1	1	1	
	9. HOW do you know what they want?	1	0,5	0,5	0,5	0	0,5	0	0,5	
Sub Total	**5**	**4**	**2,5**	**4,5**	**3,5**	**3**	**4**	**4**	**4,5**	**3,75**
Continuous Improvement	11. Do you implement changes in the business? (In terms of operations).	1	1	1	1	1	1	1	1	
	12. If so, how often?	1	0	0	1	0	0	0	0	
	13. What kinds of changes?	1	1	1	0,5	0,5	0,5	0,5	1	
	14. Why do you implement these changes?	1	0,5	1	0,5	0,5	0,5	0,5	0,5	
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	1	0,5	1	0,5	0,5	1	0,5	1	
	31. Do you compare yourselves with other restaurants?	0	1	0,5	0,5	1	1	1	1	
	32. Why?	0	0,5	0	0	0,5	1	0,5	1	
	33. With whom?	0	1	0	0,5	0,5	1	1	1	
	34. What do you compare?	0	1	0	0,5	0,5	1	0,5	0,5	
Sub Total	**9**	**5**	**6,5**	**4,5**	**5**	**5**	**7**	**5,5**	**7**	**5,69**
Tools of Quality	17. Do you know the number of customer complaints per day/week/month?	0	0	0	0	0	0	0	0	
	20. What is quality? How would you define it?	0	0	0	1	0,5	0	0	0,5	
	30. What do you do with the information that is discussed in meetings?	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	
Sub Total	**3**	**0,5**	**0,5**	**0,5**	**1,5**	**1**	**0,5**	**0,5**	**1**	**0,75**
TOTAL	**26**	**15,5**	**15,5**	**16,5**	**16**	**14,5**	**18,5**	**16**	**20,5**	**16,63**

Table 20: Results of the content analysis of the TQM interviews for Restaurant C

TQM Element	*Questions*	**Scores: Restaurant C**								
		Employee 1	*Employee 2*	*Employee 3*	*Employee 4*	*Employee 5*	*Employee 6*	*Employee 7*	*Employee 8*	*Average Total*
Employee Empowerment	18. What, in your opinion, is your purpose in the operation of the business?	0	0,5	0,5	0,5	0	1	0,5	0,5	
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	0,5	0,5	0	0,5	0	1	0	1	
	22. Have you been trained by this restaurant?	1	1	1	1	1	1	0	1	
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	1	0,5	1	1	0,5	1	0,5	1	
	24. Are there problems that you cannot deal with?	0	0	0	1	0	0	0	0	
	27. Do you have staff meetings?	0,5	0,5	0,5	0,5	0	0,5	0,5	0	
	29. What is discussed?	0,5	0,5	0,5	0	0	1	0,5	0	
	35. Would you say there is presence of teamwork here?	1	1	1	0,5	0,5	1	0,5	0,5	
	36. Why?	1	0,5	0	0,5	0,5	0,5	0	0	
Sub Total	**9**	**5,5**	**5**	**4,5**	**5,5**	**2,5**	**7**	**2,5**	**4**	**4,56**
Customer Focus	5. What is the aim/goal of the business??	1	1	0,5	1	0,5	0,5	1	1	
	6. How important are the needs of the customer on a scale of 1-5?	1	1	1	1	1	1	1	1	
	7. Why?	1	1	0	1	1	1	1	1	
	8. Do you KNOW what customers want from the restaurant?	1	0	1	0	1	1	1	1	
	9. HOW do you know what they want?	0	0,5	0,5	0,5	0,5	0,5	0,5	0,5	
Sub Total	**5**	**4**	**3,5**	**3**	**3,5**	**4**	**3**	**4,5**	**4,5**	**3,75**
Continuous Improvement	11. Do you implement changes in the business? (In terms of operations).	0,5	1	1	1	0	1	1	1	
	12. If so, how often?	1	0	0	1	0	1	0	0	
	13. What kinds of changes?	0,5	0,5	0	1	0,5	1	0,5	1	
	14. Why do you implement these changes?	0,5	0	0	0,5	0,5	0,5	0,5	0,5	
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	0,5	0,5	1	1	1	1	0,5	1	
	31. Do you compare yourselves with other restaurants?	0	0	1	0,5	0	1	0	1	
	32. Why?	0,5	0	0,5	0,5	0	1	0	0,5	
	33. With whom?	1	0	0,5	0,5	0	1	0	1	
	34. What do you compare?	1	0	1	0,5	0	1	0	1	
Sub Total	**9**	**5,5**	**2**	**5**	**6,5**	**2**	**8,5**	**2,5**	**7**	**4,88**
Tools of Quality	17. Do you know the number of customer complaints per day/week/month?	0	0	0	0	0	0	0	0	
	20. What is quality? How would you define it?	0,5	0,5	0,5	1	0,5	0,5	1	1	
	30. What do you do with the information that is discussed in meetings?	0	0	0	0	0	0,5	0	0	
Sub Total	**3**	**0,5**	**0,5**	**0,5**	**1**	**0,5**	**1**	**1**	**1**	**0,75**
TOTAL	**26**	**15,5**	**11**	**13**	**16,5**	**9**	**19,5**	**10,5**	**16,5**	**13,94**

Table 21: Results of the content analysis of the TQM interviews for Restaurant D

TQM Element	*Questions*	**Scores: Restaurant D**								
		Employee 1	*Employee 2*	*Employee 3*	*Employee 4*	*Employee 5*	*Employee 6*	*Employee 7*	*Employee 8*	*Average Total*
Employee Empowerment	18. What, in your opinion, is your purpose in the operation of the business?	0,5	0	1	0,5	1	0	1	0,5	
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	1	0,5	0,5	0,5	1	0	0,5	0,5	
	22. Have you been trained by this restaurant?	1	1	1	1	1	1	1	1	
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	1	0,5	0,5	0,5	1	0,5	0,5	0,5	
	24. Are there problems that you cannot deal with?	1	0	0	0	1	0	0	0	
	27. Do you have staff meetings?	0,5	0,5	1	1	1	0,5	1	0,5	
	29. What is discussed?	0,5	0	1	0,5	1	0	0	0,5	
	35. Would you say there is presence of teamwork here?	1	1	1	1	0,5	0,5	0,5	0,5	
	36. Why?	0,5	0,5	0,5	0,5	0,5	0,5	0,5	0,5	
Sub Total	**9**	**7**	**4**	**6,5**	**5,5**	**8**	**3**	**5**	**4,5**	**5,44**
Customer Focus	5. What is the aim/goal of the business??	0	0	1	1	1	1	1	1	
	6. How important are the needs of the customer on a scale of 1-5?	1	1	1	1	0	1	1	1	
	7. Why?	1	1	1	1	0	1	1	1	
	8. Do you KNOW what customers want from the restaurant?	1	0	0	1	1	1	0	1	
	9. HOW do you know what they want?	0	0,5	0,5	0	0	0,5	0,5	0	
Sub Total	**5**	**3**	**2,5**	**3,5**	**4**	**2**	**4,5**	**3,5**	**4**	**3,38**
Continuous Improvement	11. Do you implement changes in the business? (In terms of operations).	0,5	1	0	1	1	1	1	1	
	12. If so, how often?	0	0	0	0	0	0	0	0	
	13. What kinds of changes?	0,5	0	0	0,5	0,5	0,5	0,5	0	
	14. Why do you implement these changes?	1	0	0	1	1	0,5	1	0,5	
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	0,5	0	0,5	0,5	0,5	0,5	0,5	0,5	
	31. Do you compare yourselves with other restaurants?	0	0	0	0	1	0	1	1	
	32. Why?	0	0	0	0	1	0	0	0,5	
	33. With whom?	0	0	0	0	1	0	1	0,5	
	34. What do you compare?	0	0	0	0	1	0	0	1	
Sub Total	**9**	**2,5**	**1**	**0,5**	**3**	**7**	**2,5**	**5**	**5**	**3,31**
Tools of Quality	17. Do you know the number of customer complaints per day/week/month?	0	0	0	0	0	0	0	0	
	20. What is quality? How would you define it?	0,5	0,5	0,5	0,5	0,5	0,5	1	0,5	
	30. What do you do with the information that is discussed in meetings?	0	0	0	0	0	0	0	0,5	
Sub Total	**3**	**0,5**	**0,5**	**0,5**	**0,5**	**0,5**	**0,5**	**1**	**1**	**0,63**
TOTAL	**26**	**13**	**8**	**11**	**13**	**17,5**	**10,5**	**14,5**	**14,5**	**12,75**

Table 22: Total TQM scores for the restaurants

TQM Element	Scores				*Maximum Obtainable Total Score*
	Restaurant A	*Restaurant B*	*Restaurant C*	*Restaurant D*	
Employee Empowerment	5,60	6,44	4,56	5,44	9
Customer Focus	3,80	3,75	3,75	3,38	5
Continuous Improvement	5,90	5,69	4,88	3,31	9
Tools of Quality	1,30	0,75	0,75	0,63	3
Total TQM Score	**16,60**	**16,63**	**13,94**	**12,75**	**26**

The TQM score results displayed in Table 22 are normalised to produce the new normalised TQM score values represented in Table 23. The normalisation process is described in Appendix C.2 and was conducted for the purpose of creating scores of comparable size to imply that all four elements contribute equally to the overall TQM score, and that one element doesn't 'weigh' more than another.

Table 23: Normalised TQM scores

TQM Element	Scores				*Maximum Obtainable Total Score*
	Restaurant A	*Restaurant B*	*Restaurant C*	*Restaurant D*	
Employee Empowerment	0,6	0,7	0,5	0,6	1
Customer Focus	0,8	0,8	0,8	0,7	1
Continuous Improvement	0,7	0,6	0,5	0,4	1
Tools of Quality	0,4	0,3	0,3	0,2	1
Total TQM Score	**2,47**	**2,35**	**2,05**	**1,86**	**4**

The results of Table 23 are displayed in the form of a bar graph whereby each restaurant is compared in terms of the scores they obtained for each TQM element (see Figure 4).

Figure 4 allows one to easily identify how the restaurants differ, and where their strengths and weaknesses lie in their implementation of TQM features.

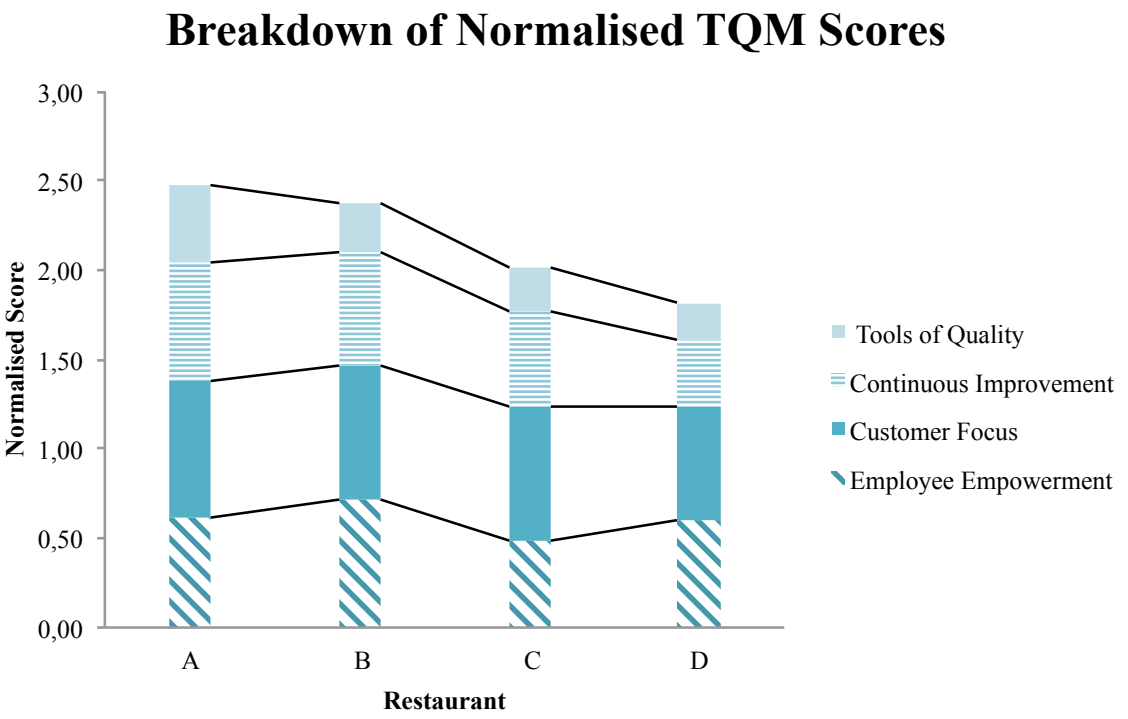


Figure 4: Breakdown of the normalised TQM scores for the sample restaurants

Each restaurant is explored more closely in order to identify how the frequency of response scores affects the data and whether or not averaging the scores across the employees (as shown in Table 18,19,20, and 21) actually skews the data, thus potentially providing misleading results. This is done by examining and comparing the occurrence (as a percentage) of the three content analysis scores (0, 0.5, 1) per restaurant for each TQM *element*, the results of which are displayed in Table 24,25,26 and 27. The results of the tables are then clarified through the use of bar graphs depicted by Figures 5,6,7, &8. Appendix C.3 depicts the method for obtaining the frequency tables presented below.

Table 24: Total score frequencies for the responses obtained from the employee empowerment interview questions

Employee Empowerment			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	25	26	49
B	18	21	61
C	29	40	31
D	17	46	38

Table 25: Total score frequencies (as a percentage) for the responses obtained from the customer focus interview questions

Customer Focus			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	13	22	65
B	15	20	65
C	10	25	65
D	25	10	65

Table 26: Total score frequencies (as a percentage) for the responses obtained from the continuous improvement interview questions

Continuous Improvement			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	21	26	53
B	19	35	46
C	31	31	38
D	51	24	25

Table 27: Total score frequencies (as a percentage) for the responses obtained from the tools of quality interview question.

Tools of Quality			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	38	42	21
B	54	42	4
C	63	25	12
D	63	33	4

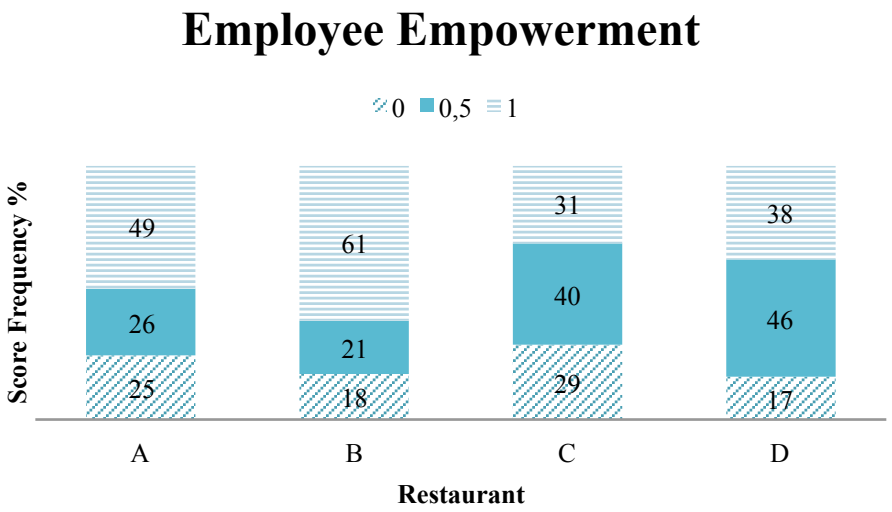


Figure 5: A graphical representation of the score frequencies as a percentage per restaurant for the responses obtained from the questions pertaining to employee empowerment.

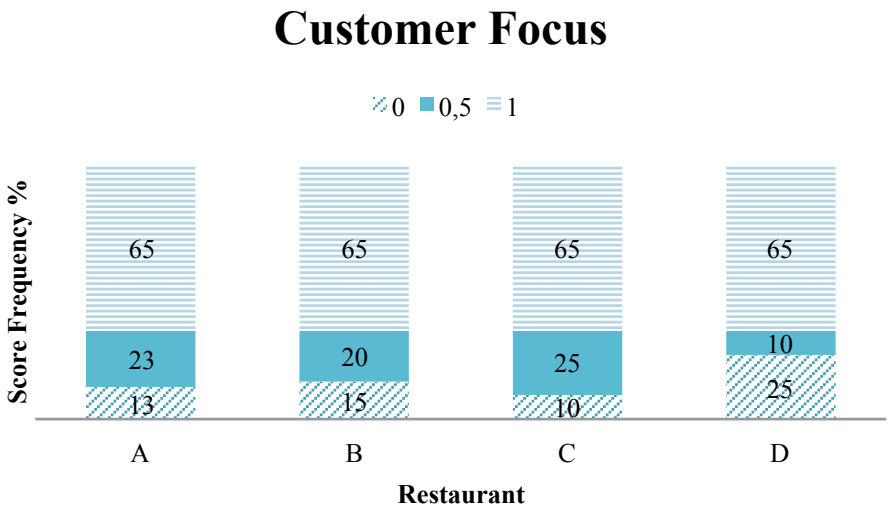


Figure 6: A graphical representation of the score frequencies as a percentage per restaurant for the responses obtained from the questions pertaining to customer focus.

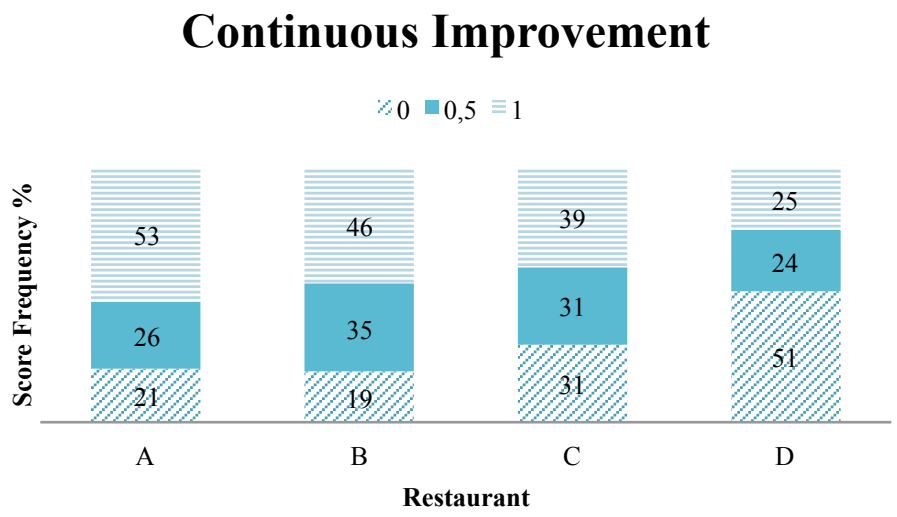


Figure 7: A graphical representation of the score frequencies as a percentage per restaurant for the responses obtained from the questions pertaining to continuous improvement.

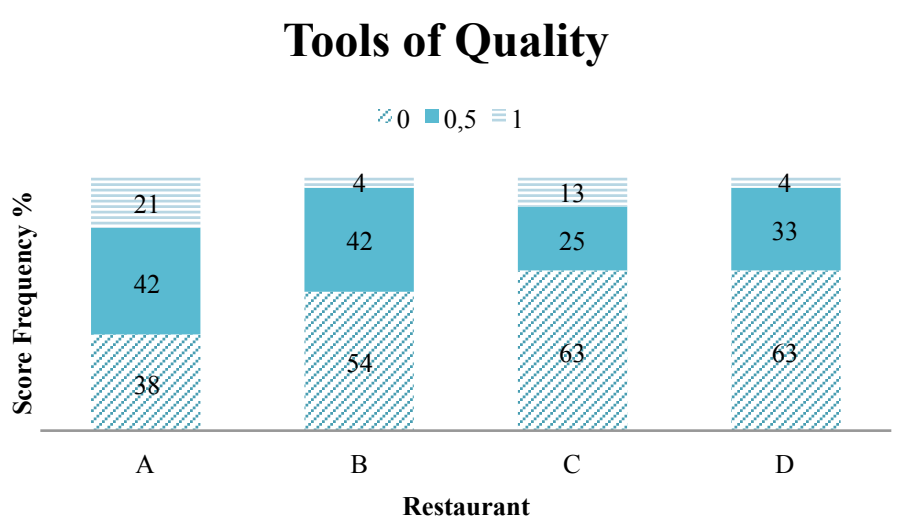


Figure 8: A graphical representation of the score frequencies as a percentage per restaurant for the responses obtained from the questions pertaining to the tools of quality.

The preliminary TQM interview questions asked prior to the commencement of the TQM interview are considered demographic-type questions. The results of which are presented in the form of a table to potentially allow for relationships between the various variables to be identified. Table 28 presents the details of the interviewee's position within the establishment, and the number of years the interviewee has worked at the particular restaurant. In addition to these results, the total TQM score obtained by each respondent is displayed.

Table 28: Preliminary TQM interview questions

Respondent	Restaurant A			Restaurant B			Restaurant C			Restaurant D		
	Position?	*How long have you worked at the restaurant?*	*TQM Score*	*Position?*	*How long have you worked at the restaurant?*	*TQM Score*	*Position?*	*How long have you worked at the restaurant?*	*TQM Score*	*Position?*	*How long have you worked at the restaurant?*	*TQM Score*
1	Waiter	2 weeks	12,5	**Manager**	4 years	15,5	Waiter	1 year 6 months	15,5	**Manager**	2 years	13
2	Waiter	1year 1month	19	Waiter	6 years	15,5	Waiter	9 months	11	Waiter	2 years	8
3	Waiter	1year 3month	14,5	Waiter	5 years	16,5	**Manager**	1 month	13	Waiter	4 years	11
4	Waiter	5years	20,5	Waiter	1 year 3 months	16	**Manager**	1 year	16,5	Waiter	5 years	13
5	Waiter	1 year	14	Waiter	12 years	14,5	Waiter	3 years	9	**Manager**	7 years	17,5
6	Waiter	1 year	13,5	Waiter	4 years	18,5	**Owner**	5 years	19,5	Waiter	3 months	10,5
7	Waiter	3 years	16	Waiter	11 years	16	Waiter	1 year 5 months	10,5	Waiter	7 years	14,5
8	**Owner**	11 years	22,5	Waiter	5 years	20,5	Waiter	3 years	16,5	Waiter	2 months	14,5

4.3. Customer Surveys

The result tables obtained from the customer surveys are presented in Appendix C.4, for the purpose creating a clear report that is free from clutter and confusion. Thus, the results in this section are displayed in the form of summaries and frequency tables for the reader's benefit.

4.3.1. Demographic results

The results obtained from Question 1, 2, 3, 4 & 6 of the customer survey are summarized below for each restaurant, succeeded by the results obtained from Question 5 of the survey.

Restaurant A

Question 1,2,3

- 29% of the sample customers were first time visitors.
- 71% of the customers were return customers. 57% of which revisit for restaurant's 'food and service'. 6% visit just for the 'food', whereas only 2% visit for the 'service'. 6% of the customers revisit the restaurant for 'other' reasons i.e. "convenience" and "environment".

Question 4

- Restaurant A was found to be the most popular choice for the customers' favourite restaurant and was selected 9 times. It was also identified to be the most popular choice for the customers' second favourite restaurant and was selected 4 times.

Question 6

- 79% of the sample was aged between 18 and 44. Of the 79%, the majority of the sample (38%) were aged between 24 and 35; 21% were aged between 18 and 24; and 19% were aged between 45 and 54.

Restaurant B

Question 1,2,3

- 20% of the customers who participated in the study were first time visitors.
- 80% of the sample consisted of return customers, 42% of which revisit for both the 'food and service' and 32% visit just for the 'food'. 2% visit for the 'service' and 4% visit for 'other' reasons namely "convenience" and "environment"

Question 4

- Restaurant B was not found to be the most populate choice for the customers' favourite restaurant; instead a popular South African franchise restaurant was the most popular choice and was selected 8 times. Restaurant B was, however, found to be the most popular second and third favourite restaurant and was selected 8 and 3 times respectively.

Question 6

- All customers participating in the study were aged between 18 and 54 years of age. The majority (24%) were aged between 24 and 35. 13% were aged between 18 and 24, the remaining 13% of the sample ranged from age 35 to 54.

Restaurant C

Question 1,2,3

- 12% of the customers who participated in the study were first time visitors.
- Return customer made up 88% of the sample. Of which 67% revisit for both the 'food and service'; 15% revisit for the 'food'; 0% revisit for the 'service'; and 6% revisit for other reasons namely for the "environment" and "convenience".

Question 4

- Restaurant C was the most popular choice for the customer's favourite and second favourite restaurant, and was selected 9 and 6 times respectively.

Question 6

- 73% of the sample customers ranged from age 24 to 54, of which the majority (32%) were between the ages of 45 and 54. Second to that were the customers aged 24-35 that made up 28% of the sample. The remainder of the sample was spread across the balance of age groups.

Restaurant D

Question 1,2,3

- 16% of the customers who participated in the study were first time visitors.
- 84% of the customers were return customers, of which 36% revisit the establishment because they enjoy both its food and service. 32% of the return customers do so for other reasons entirely, namely for 'convenience' and 'environment'. 14% revisit the restaurant solely for its food, and 2% return purely for its service.

Question 4

- Restaurant D was not identified to be the favourite restaurant choice for customers and was only selected 3 times.

Question 6

- 64% of the customer samples were between the ages of 18 and 35, which made up the majority of the customers. 42 % of which were between the age of 18 and 24, and 22% were between 24 and 35. The remaining 36% of the sample customers ranged from age 35 to age 74.

Question 5's results are presented in Table 29, which compares the customer responses from the four restaurants. Figures 9 and 10 graphically display the results of Table 29.

Table 29: The table displays the frequency (as a percentage) of the customer responses obtained for the questions concerning Question 5 of the customer survey.

Restaurant	*Level of Influence of the **quality of service** on the customer's revisit to a restaurant (1=low 5=high)*					*Level of Influence of the **quality of food** on the customer's revisit to a restaurant (1=low 5=high)*				
	1	***2***	***3***	***4***	***5***	***1***	***2***	***3***	***4***	***5***
A			2%	40%	57%				17%	83%
B			14%	40%	46%			4%	18%	78%
C			2%	38%	60%				13%	87%
D			14%	44%	42%			6%	16%	78%



Figure 9: A bar graph depicting the responses to part A of Question 5 for each restaurant, which shows the customers' perception of the level of influence of service quality on their revisit intention.

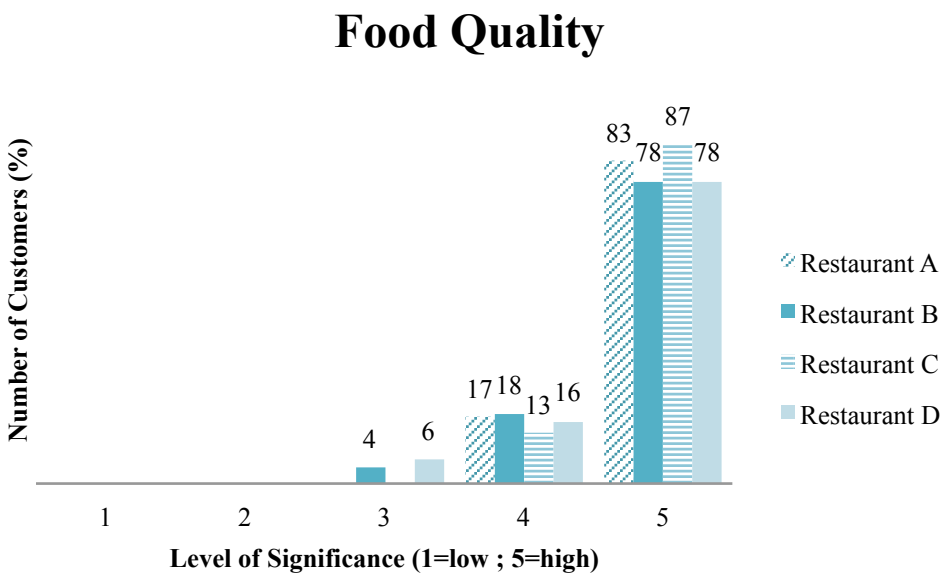


Figure 10: A bar graph depicting the responses to part B of Question 5 for each restaurant, which shows the customers' perception of the level of influence of the food quality on their revisit intention.

4.3.2. SERVQUAL results

The results for Question 7 and 8 i.e. the SERVQUAL portion of the customer survey, are depicted in the subsequent tables and graphs.

In the tables that follow, for simplicity purposes, the SERVQUAL survey questions are represented in the text by the dimensions of quality, which they represent as follows:

- *Tangibles – 'The appearance of the restaurant's physical facilities should be consistent with the type of service it provides'*
- *Reliability – ' When customers have problems, restaurant employees should be sympathetic and reassuring'*
- *Responsiveness – 'It is not realistic for customers to expect prompt service from the restaurant employees'*
- *Assurance – 'Employees should be polite'*
- *Empathy– 'It is unrealistic to expect employees to know what the needs of their customers are'*

As mentioned in the preceding chapter, a 7-point Likert Scale is used as the rating method, whereby the scoring procedure is as follows:

1 = 'Strongly Disagree'

2 = 'Disagree'

3 = ‘Disagree Somewhat’

4 = ‘Neutral’

5 =‘Agree Somewhat’

6 = ‘Agree’

7 = ‘Strongly Agree’

Tables 30 to 33 depict the occurrence (as a % of customers) of the various scores for Question 7 (customer’s expectations of a restaurant) and Question 8 (customer’s perceptions of the restaurant). Figures 11 to 19 graphically represent the data presented by the aforementioned tables.

Table 30: Frequency table of the scores obtained for the SERVQUAL type questions for Restaurant A.

Restaurant A	**Score frequency (%)**						
Dimensions of Quality	***Expectations Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	0	2	2	45	51
Reliability	0	0	0	2	15	23	60
Responsiveness	15	6	15	4	6	11	43
Assurance	0	0	0	2	4	21	72
Empathy	11	9	11	13	19	19	19
Dimensions of Quality	***Perceptions Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	2	0	4	4	34	55
Reliability	0	0	2	6	11	45	36
Responsiveness	6	11	2	9	13	34	26
Assurance	0	0	2	4	6	36	51
Empathy	6	6	6	36	9	21	15

Table 31: Frequency table of the scores obtained for the SERVQUAL type questions for Restaurant B

Restaurant B	**Score frequency (%)**						
Dimensions of Quality	***Expectations Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	0	4	14	40	42
Reliability	0	0	0	0	2	36	62
Responsiveness	10	6	4	4	10	22	44
Assurance	0	0	0	0	6	14	80
Empathy	10	4	18	22	16	16	14
Dimensions of Quality	***Perceptions Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	0	8	16	40	36
Reliability	0	0	0	14	38	36	12
Responsiveness	6	12	10	10	24	26	12
Assurance	0	0	4	18	14	38	26
Empathy	4	4	10	22	22	30	8

Table 32: Frequency table of the scores obtained for the SERVQUAL type questions for Restaurant C

Restaurant C	Score frequency (%)						
Dimensions of Quality	***Expectations Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	0	6	9	43	43
Reliability	2	0	0	4	9	17	68
Responsiveness	9	4	13	2	6	21	45
Assurance	0	0	0	4	2	15	79
Empathy	13	9	13	28	9	13	17
Dimensions of Quality	***Perceptions Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	6	0	11	47	36
Reliability	2	0	0	19	9	38	32
Responsiveness	6	11	4	13	11	32	23
Assurance	0	2	0	2	11	32	53
Empathy	4	13	4	15	13	30	21

Table 33: Frequency table of the scores obtained for the SERVQUAL type questions for Restaurant D

Restaurant D	Score frequency (%)						
Dimensions of Quality	***Expectations Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	0	8	12	40	40
Reliability	2	0	0	2	10	24	62
Responsiveness	2	16	6	4	8	24	40
Assurance	2	0	0	0	2	16	80
Empathy	6	14	20	16	12	18	14
Dimensions of Quality	***Perceptions Score***						
	1	***2***	***3***	***4***	***5***	***6***	***7***
Tangibles	0	0	2	8	8	54	28
Reliability	0	0	4	18	10	46	22
Responsiveness	2	10	20	4	12	34	18
Assurance	0	0	2	2	22	42	32
Empathy	2	8	10	20	22	30	8

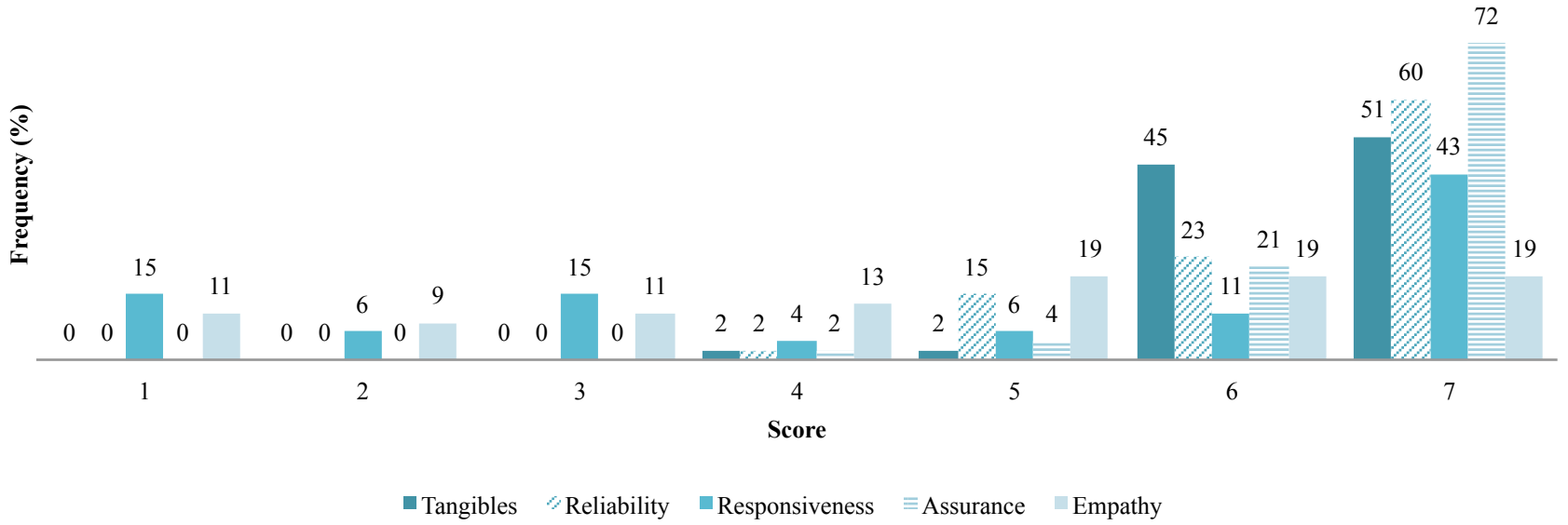


Figure 11: Graph of frequency distribution of expectation scores for Restaurant A.

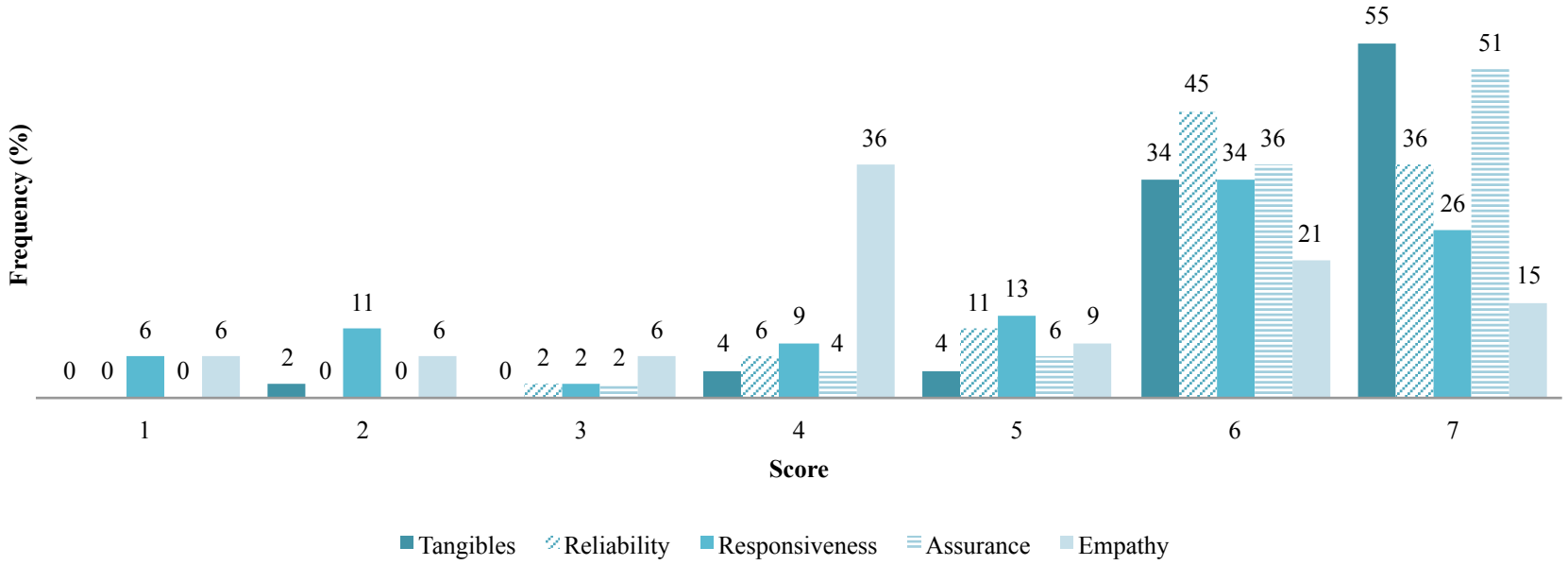


Figure 12: Graph of frequency distribution of perception scores for Restaurant A.

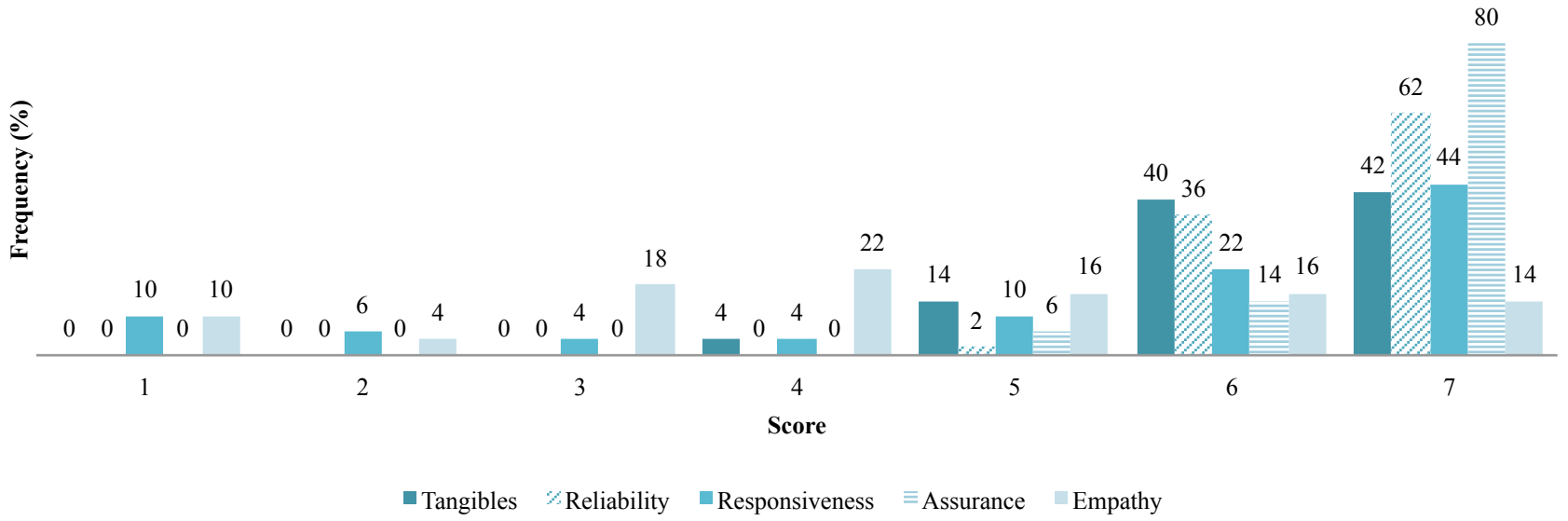


Figure 13: Graph of frequency distribution of expectation scores for Restaurant B.

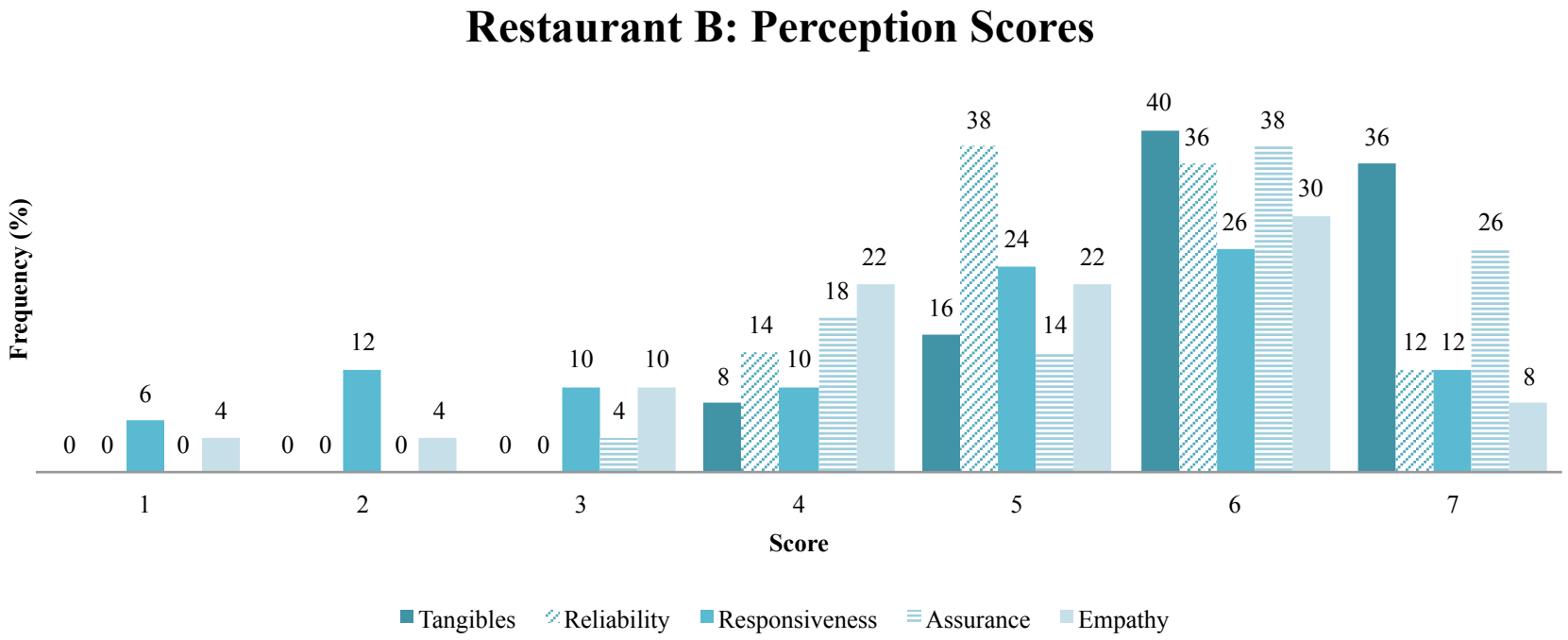


Figure 14: Graph of frequency distribution of perception scores for Restaurant B.

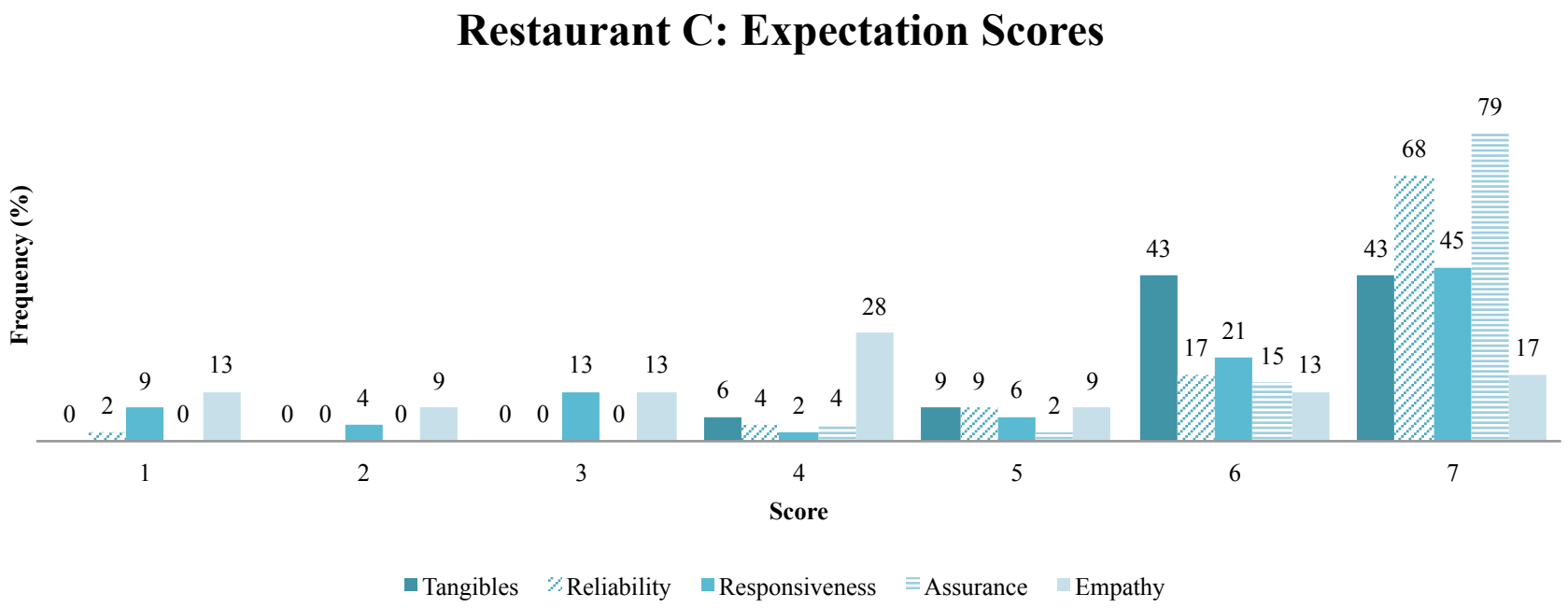


Figure 15: Graph of frequency distribution of expectation scores for Restaurant C.

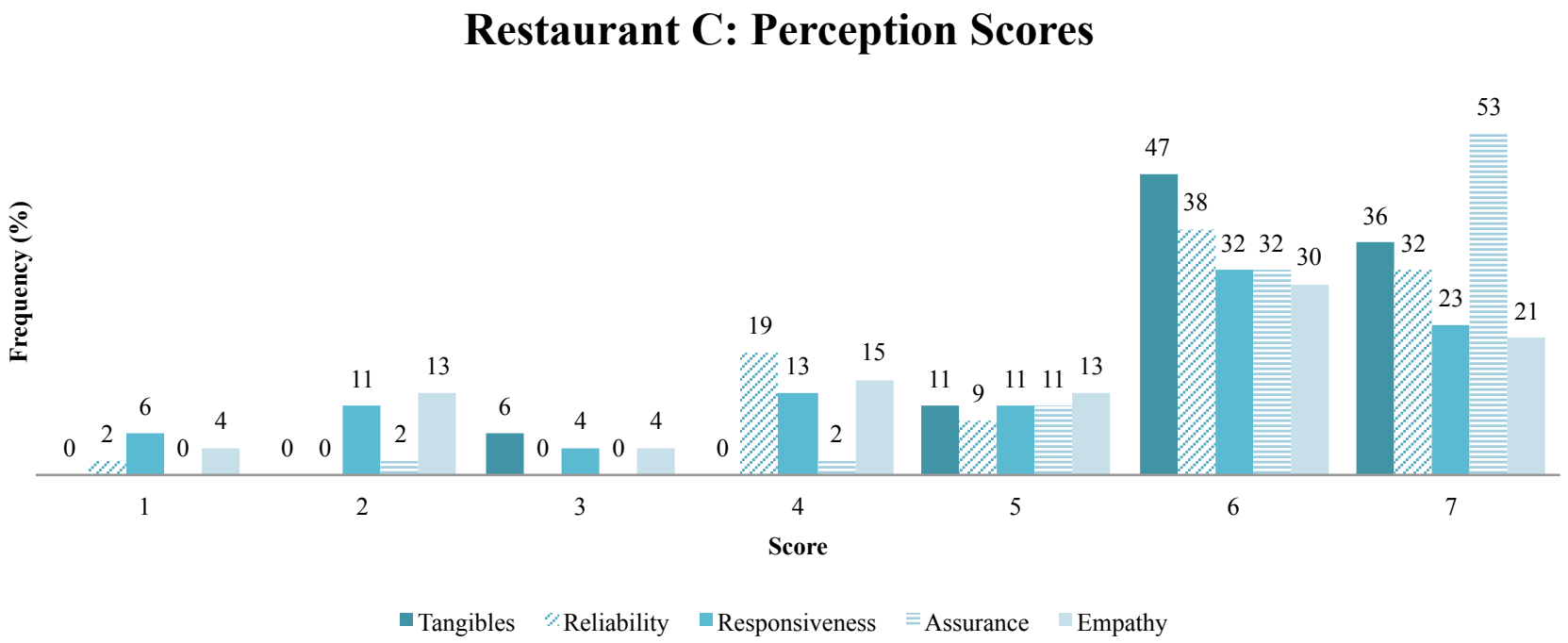


Figure 16: Graph of frequency distribution of perception scores for Restaurant C.

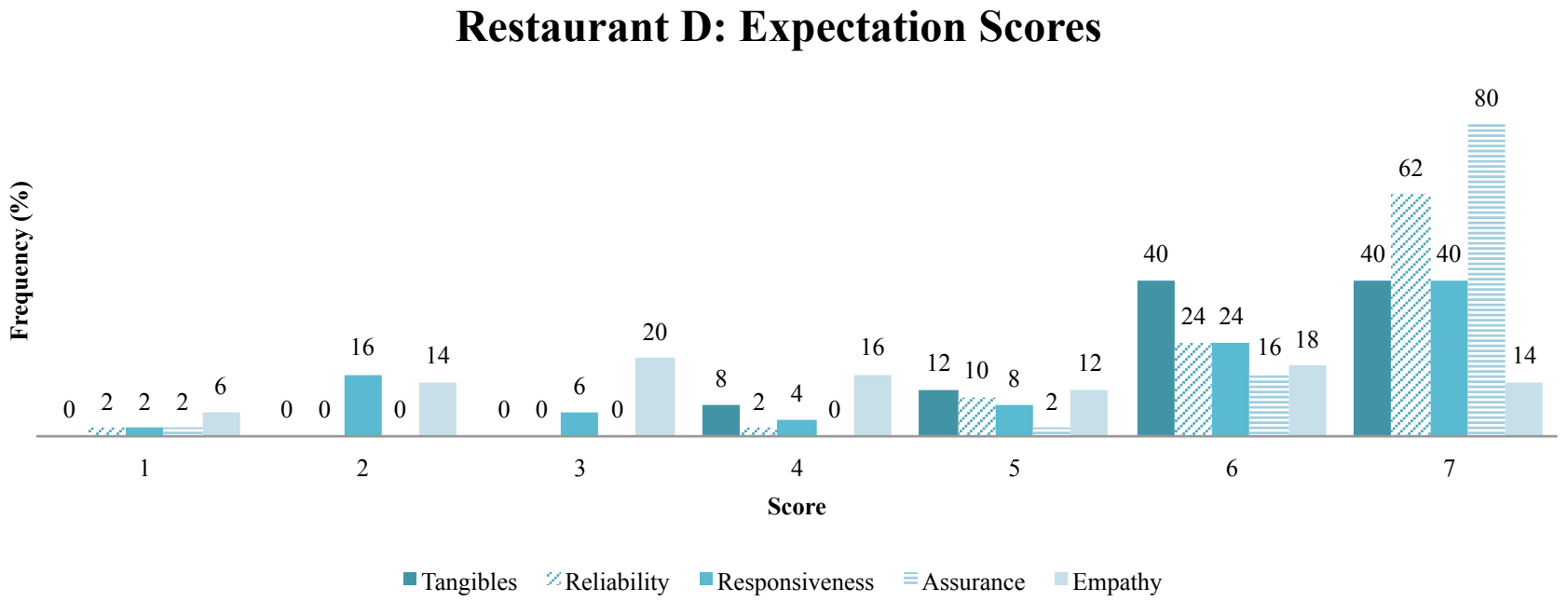


Figure 17: Graph of frequency distribution of expectation scores for Restaurant D.

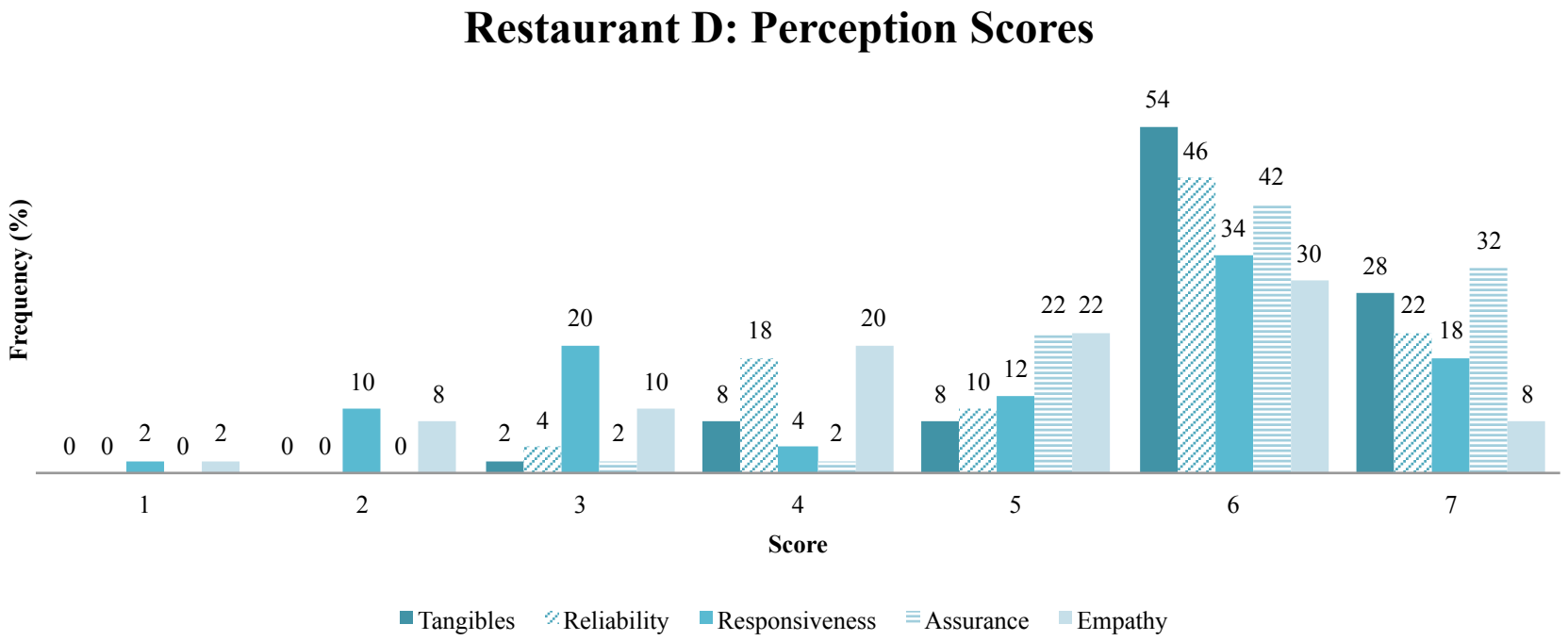


Figure 18: Graph of frequency distribution of perception scores for Restaurant D.

Table 34 presents a condensed version of the survey results, whereby the customer gap scores for each dimension (survey question) were averaged to obtain a single gap score per dimension per restaurant. The gap scores are calculated by subtracting the expectation scores from the perception scores for each customer response (Gap = Perception – Expectation). The table also shows the final SERVQUAL score per restaurant, which is obtained by averaging the gaps scores obtained for the 5 dimensions of quality. Figure 19 graphically presents the results of Table 34.

Note: A negative gap score implies that the customers' expectations exceeded their perceptions of the establishment, which signifies that the service they actually received did not "live up to expectations".

Table 34: A comparison of the SERVQUAL scores for the four sample restaurants.

Dimension	**Gap Score**			
	Restaurant A	**Restaurant B**	**Restaurant C**	**Restaurant D**
Tangibles	-0,11	-0,16	-0,15	-0,14
Reliability	-0,34	-1,14	-0,66	-0,74
Responsiveness	0,32	-0,8	-0,36	-0,44
Assurance	-0,34	-1,1	-0,38	-0,68
Empathy	0,02	0,42	0,77	0,5
SERVQUAL Score	**-0,09**	**-0,56**	**-0,16**	**-0,30**

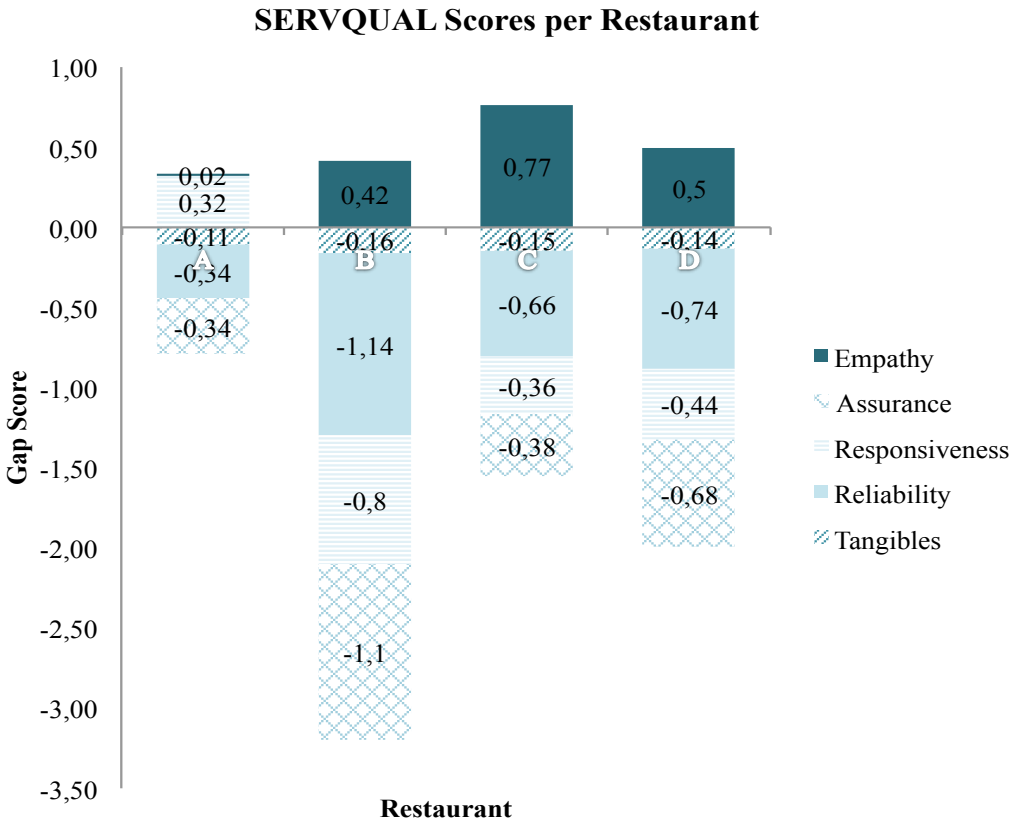


Figure 19: Graphical representation of the gaps scores for the sample restaurants.

To further investigate the results depicted by Figure 19, the frequency of the recorded customer gap scores for the five dimensions of quality per restaurant are displayed in Table 35. The occurrences of the gap scores are depicted as a percentage of the sample customers, to account for the fact that the sample size varies between the restaurants for the reasons mentioned in Section 3.3.5. Depicting the frequencies as a tally of the actual obtained responses is believed to provide misleading results due to the difference in sample sizes between restaurants. Therefore, showing the frequencies as a *percentage* of each sample allows for comparisons to be made between the restaurants.

Table 35: The table indicates the occurrence of the various gap scores per dimension as a percentage of the sample customers per restaurant.

Dimension of Quality	***GAP Score Frequency (%)***												
	-6	**-5**	**-4**	**-3**	**-2**	**-1**	**0**	**1**	**2**	**3**	**4**	**5**	**6**
Restaurant A													
Tangibles	0	0	2	0	4	13	62	19	0	0	0	0	0
Reliability	0	0	0	4	4	26	55	9	2	0	0	0	0
Responsiveness	0	4	0	4	4	17	34	13	4	11	6	0	2
Assurance	0	0	0	2	4	28	57	9	0	0	0	0	0
Empathy	2	2	2	4	9	19	23	15	15	4	0	0	4
Restaurant B													
Tangibles	0	0	0	0	14	18	44	18	6	0	0	0	0
Reliability	0	0	0	10	24	36	30	0	0	0	0	0	0
Responsiveness	2	2	10	8	12	14	28	14	6	2	0	0	2
Assurance	0	0	4	16	8	32	38	2	0	0	0	0	0
Empathy	0	0	0	2	4	14	38	24	14	2	0	0	2
Restaurant C													
Tangibles	0	0	2	4	4	11	64	6	6	2	0	0	0
Reliability	2	0	0	13	2	28	43	11	0	2	0	0	0
Responsiveness	2	9	0	13	9	13	28	6	2	6	9	2	2
Assurance	0	2	0	0	6	28	55	6	0	2	0	0	0
Empathy	0	2	0	13	6	11	17	9	13	19	0	6	4
Restaurant D													
Tangibles	0	0	0	0	6	24	50	18	2	0	0	0	0
Reliability	0	0	2	10	14	28	36	6	2	0	0	2	0
Responsiveness	2	2	8	6	8	14	40	6	4	0	6	4	0
Assurance	0	0	2	0	16	42	32	6	0	0	2	0	0
Empathy	0	0	0	6	12	12	26	12	12	16	2	0	2

The figures that follow illustrate a comparison of the number of times a particular gap score was documented for each dimension of quality. Each dimension is assigned its own graph for the purpose of comparing the occurrence of gaps per restaurant.

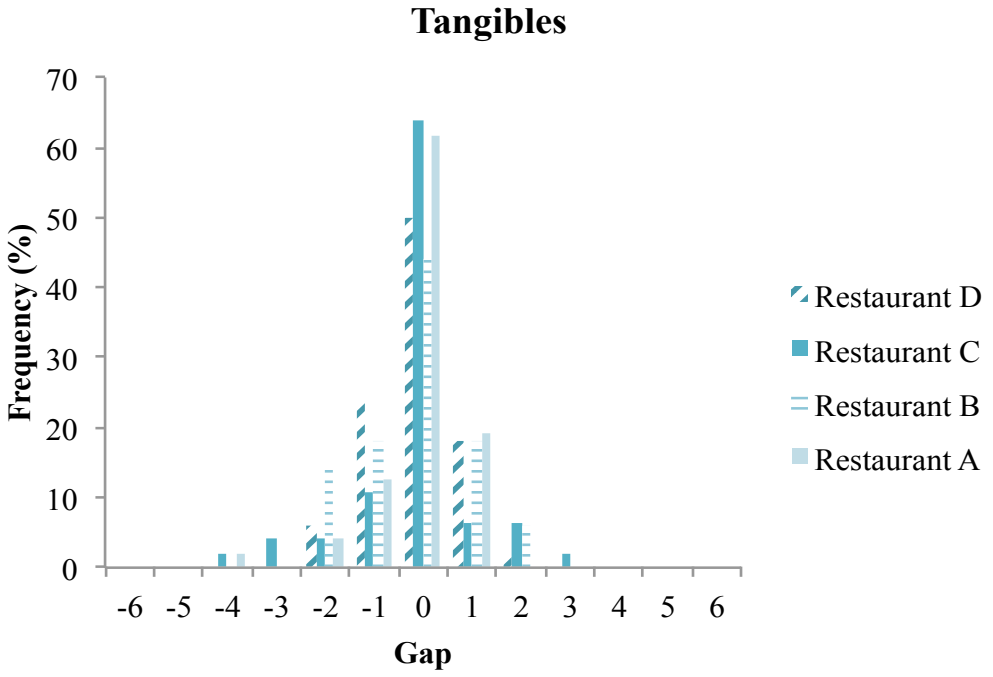


Figure 20: The occurrence of the various gaps scores for the 'tangibles' dimension as acknowledged by the customers for the sample restaurants.

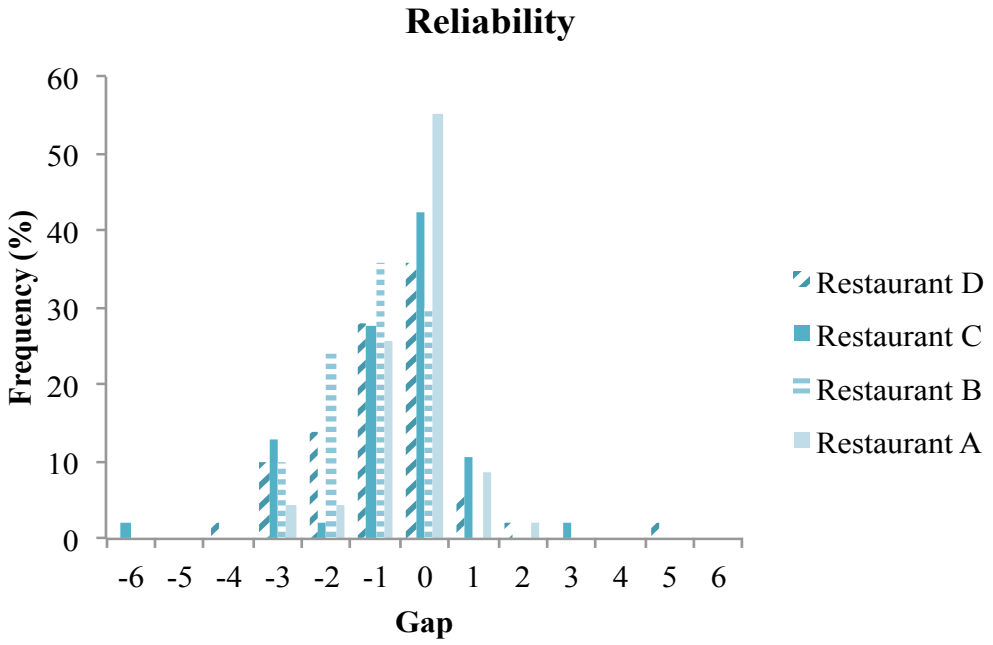


Figure 21: The occurrence of the various gaps scores for the 'reliability' dimension as acknowledged by the customers for the sample restaurants.

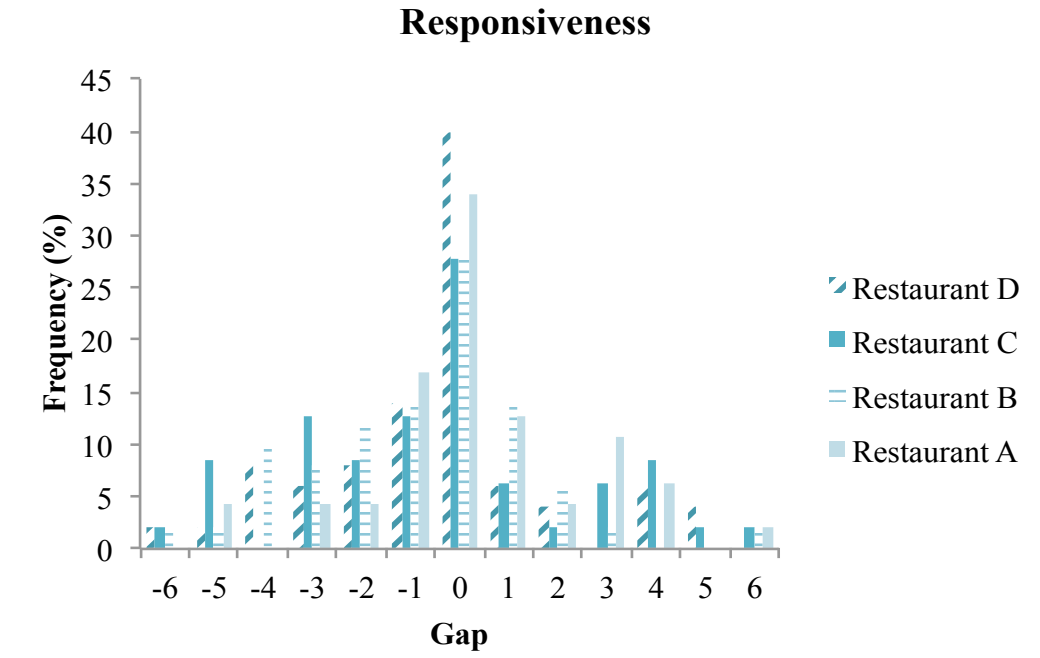


Figure 22: The occurrence of the various gaps scores for the 'responsiveness' dimension as acknowledged by the customers for the sample restaurants.

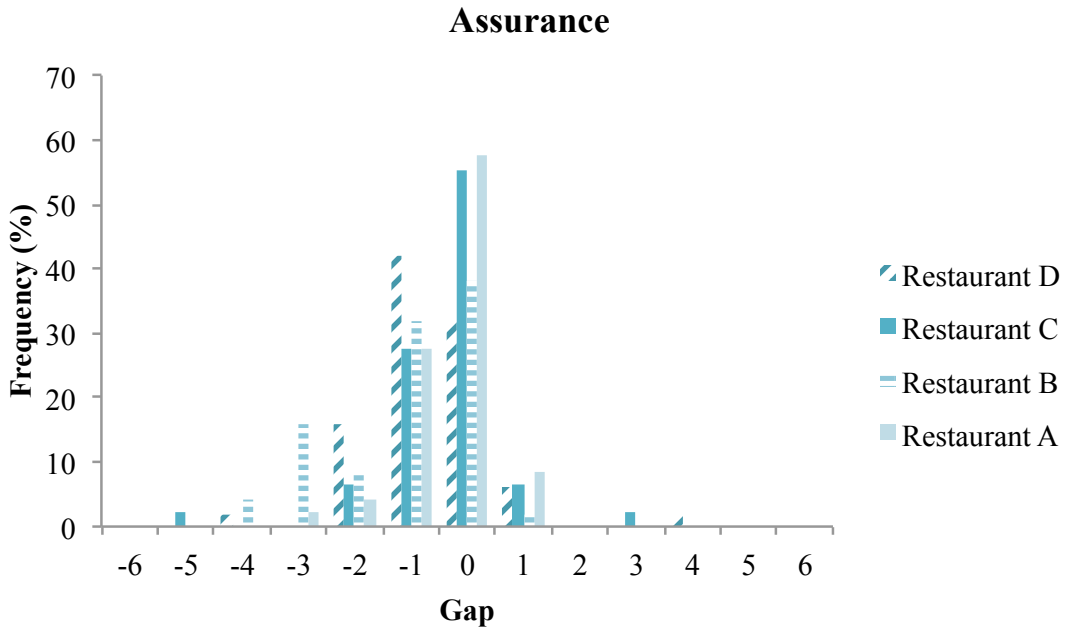


Figure 23: The occurrence of the various gaps scores for the 'assurance' dimension as acknowledged by the customers for the sample restaurants.

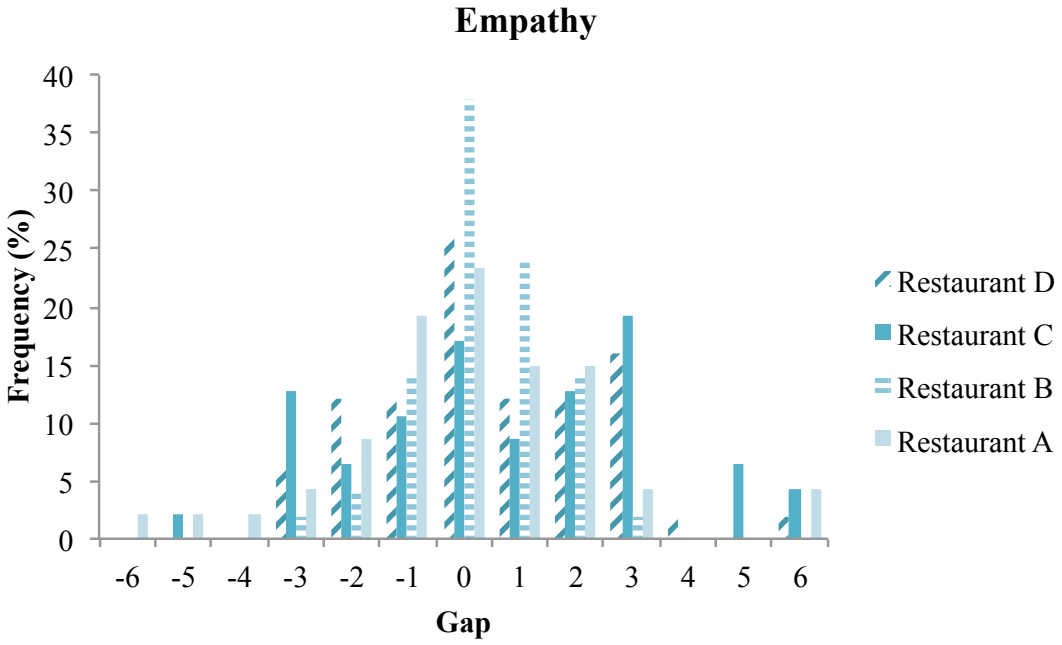


Figure 24: The occurrence of the various gaps scores for the 'empathy' dimension as acknowledged by the customers for the sample restaurants.

4.3.3. Results of Question 9

The results of Question 9 of the customer survey are shown in Table 36, whereby the occurrence of a response is represented as a percentage of the sample customers for the particular restaurant.

Table 36: The distribution of the customer responses to the questions concerning Question 9 of the survey.

Question	Distribution of customer responses (%)						
	Stongly Disagree **1**	Disagree **2**	Disagree Somewhat **3**	Neutral **4**	Agree Somewhat **5**	Agree **6**	Strongly Agree **7**
Restaurant A							
1. The restaurant's quality of service is quite high.	0	0	4	4	6	43	43
2. I would recommend the restaurant to my friends for this type of service quality.	0	2	2	2	9	36	49
3. I will chose this restaurant's service over others in the future.	2	2	2	9	17	45	23
Restaurant B							
1. The restaurant's quality of service is quite high.	0	0	2	8	24	38	28
2. I would recommend the restaurant to my friends for this type of service quality.	0	0	6	8	22	38	26
3. I will chose this restaurant's service over others in the future.	0	2	18	24	16	26	14
Restaurant C							
1. The restaurant's quality of service is quite high.	0	0	0	2	17	40	40
2. I would recommend the restaurant to my friends for this type of service quality.	0	0	0	6	17	28	49
3. I will chose this restaurant's service over others in the future.	0	2	0	21	19	34	23
Restaurant D							
1. The restaurant's quality of service is quite high.	0	2	4	8	24	38	24
2. I would recommend the restaurant to my friends for this type of service quality.	2	6	4	10	16	36	26
3. I will chose this restaurant's service over others in the future.	2	6	10	24	24	30	4

To gain a clear concept of the distribution of responses displayed in Table 36, the data is rearranged to form Figures 25, 26 and 27 below, whereby each question is explored separately so that a comparison can be made between the restaurants.

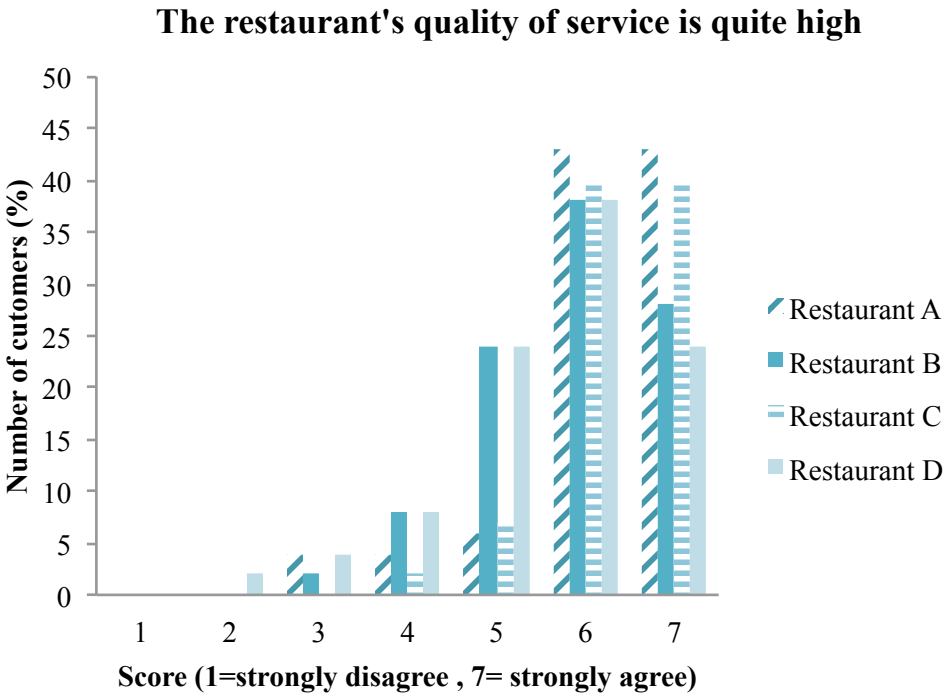


Figure 25: A graph depicting the customer responses to the part 'a' of Question 9 for each restaurant.

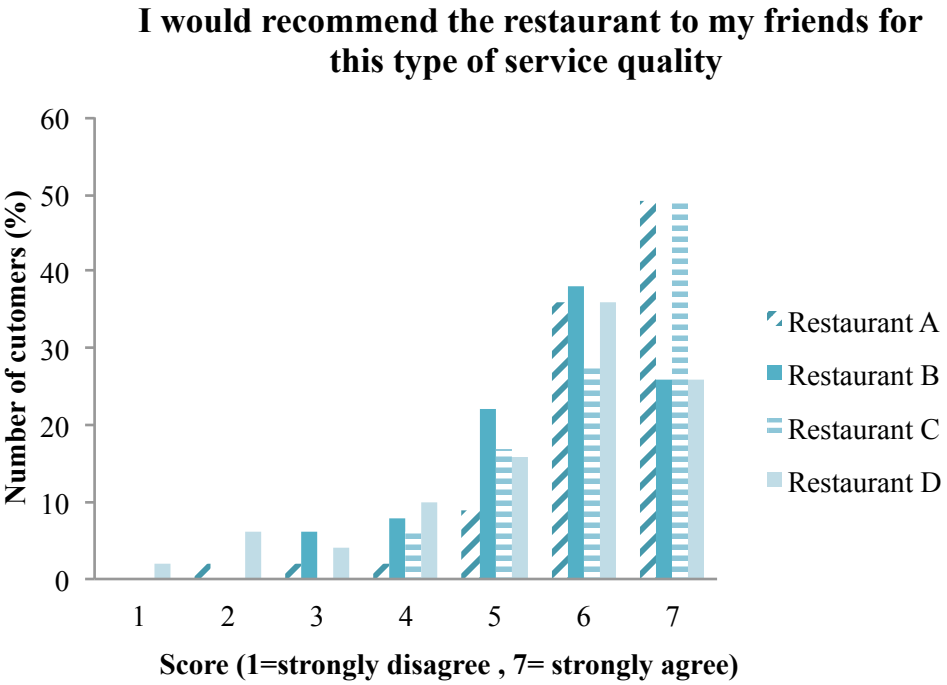


Figure 26: A graph depicting the customer responses to the part 'b' of Question 9 for each restaurant.



Figure 27: A graph depicting the customer responses to the part 'c' of Question 9 for each restaurant.

4.4. Processed Observations

The raw observations as recorded by the researcher are available in Appendix C.5. This section, however, presents a processed and summarized account of the observations made at each restaurant, whereby Table 37 depicts only the key aspects that were observed.

Table 37: A comparative summary of the observations made at the sample restaurants.

Observation Criteria	***Restaurant A***	***Restaurant B***	***Restaurant C***	***Restaurant D***
Evidence of the presence of the 7 tools of quality.	No physical evidence of checklists/graphs in the restaurant.	No physical evidence of checklists/graphs in the restaurant.	No physical evidence of checklists/graphs in the restaurant.	No physical evidence of checklists/graphs in the restaurant.
Presence of work teams or groups.	A morning meeting between the waiters was observed. This roughly resembles a work group. However, meeting seemed unnatural as if it occurred for the benefit of the researcher.	A staff meeting was observed @ 3pm shift change. Floor managers involved as well as waiters. Teamwork is present. Waiters help to serve each other's tables.	No staff meeting was observed. There is some level of teamwork present, but there isn't a great deal. On numerous occasions it was observed that drinks would wait at the bar for their waiter to collect them.	No staff meeting observed. Teamwork is evident. The staff works together to set up restaurant in the morning, and close up in the evening. The employees also help each other when tending to customers – share responsibility.
Observe the procedures undertaken when a complaint or issue occurs.	Waiters do not deal with complaints. Manager or owner solves them. Waiter takes complaint directly to the manager.	Waiters do not deal with complaints. Manager solves the problems. Waiter takes complaint directly to the manager.	Waiters do not solve the issues. They apologise to the customer, but immediately approach managers who investigate and deal with complaints.	Waiters do not solve the issues. Managers investigate and deal with complaints.
Staff's interactions with the customers.	The staff's attitudes towards and interactions with the customers vary greatly from employee to employee.	Waiters' attitudes towards customers vary. Some are attentive and helpful while others are not.	Waiters welcome customers with a smile and are quick to offer them a table as soon as they enter.	Overall pleasant. Attentive. Warmly welcome customers. Regularly check on customers.

	Floor managers are sometimes hands on with customers and at other times not.	Managers are always on the floor, and have hands on approach towards the customers. Manager does not always check on all tables.	Managers have a good relationship with their customers.	Floor managers are very hands on with customers.

4.5. Final Comparative Analysis

This section comprises of a series of comparisons between various results exhibited in the preceding section.

Firstly, the results of Question 8 (the perception SERVQUAL questions) and Question 9 of the customer surveys are set against one another, as depicted in Table 38, with the intention of identifying the reliability of the obtained SERVQUAL results. Question 9 essentially measures the customer's actual satisfaction levels by examining whether or not they would revisit the establishment or recommend the restaurant to friends and family. The process undertaken to construct Table 38 is available in Appendix C.6 The table depicts the modal values for Question 8 and 9 for each restaurant.

Table 38: Comparison of the scores obtained from Question 8 and 9 of the customer survey using the modal values

	Question 8						Question 9			
	MODE SCORE									
Restaurant	The appearance of the restaurant's physical facilities is consistent with the type of service provided.	When you have a problem, the restaurant is sympathetic and reassuring.	You do not receive prompt service from the restaurant's employees. (-)	The restaurant's employees of are very polite.	The restaurant's employees don't know what your needs are. (-)	***Mode***	The restaurant's quality of service is quite high.	I would recommend the restaurant to my friends for this type of service quality.	I will choose this restaurant's service over others in the future.	***Mode***
A	7	6	6	7	4	**6 & 7**	6 & 7	7	6	**6 & 7**
B	6	5	6	6	6	**6**	6	6	6	**6**
C	6	6	6	7	6	**6**	6	7	6	**6**
D	6	6	6	6	6	**6**	6	6	6	**6**

Secondly, the observations are triangulated with the TQM results in an attempt to consolidate the information obtained from the interviews and determine the reliability. The following summary presents the triangulation of the results, for every observation a reference is made to a result obtained from the TQM interview.

Observation: Evidence of the presence of the 7 tools of quality?

For Restaurant A, B, C, D the finding presented in Table 37 matches the findings from Question 17 of the TQM interview, where it is identified that no record or graphical representation made of the number of customer complaints.

Observation: Presence of work teams or groups?

The finding presented in Table 37 matches the findings obtained from Question 27 and 28 of the TQM interview where the majority of the respondents at all four restaurants identify the presence of staff meetings and teamwork.

Observation: Observe the procedures undertaken when a complaint or issue occurs.

The finding presented in Table 37 matches the findings obtained from Question 23 and 24 of the TQM interview where it is made evident that lower level employees are required to go through the manager in the event of a customer complaint and do not have the authority to solve problems on their own.

Observation: Staff's interactions with the customers.

This observation does not directly correspond to any TQM interview question, but rather acts as a means of identifying the interactions between customer and employee for background purposes, which may offer insight into the service quality results for the restaurants. At this point restaurants C and D are observed to have the most motivated and enthusiastic employees.

Lastly, Table 39 depicts the comparison between the total TQM scores and respective SERVQUAL scores for each restaurant.

Note: The SERVQUAL score is more desirable as it becomes more positive, as this implies that perceptions exceed expectations.

Table 39: Comparison of restaurant TQM and SERVQUAL scores

Restaurant	TQM Score	SERVQUAL Score
A	16,60	-0,09
B	16,63	-0,56
C	13,94	-0,16
D	12,75	-0,30

Chapter 5: Discussion

This chapter not only discusses the content presented in Chapter 4, but also considers the research in it entirety. The discussion uses the results from the preceding chapter as a starting point for further exploration into the implications of results and overall value of the research and the subsequent findings. The chapter is divided into 4 sections, which explore different elements of the dissertation in an effort to reduce confusion and increase ease of reading.

A review of the research instruments

The research is deemed unique as it is believed to be the first of its kind that attempts to investigate the potential relationship between service quality experienced by a restaurant customer, and the "behind the scenes" quality management practices implemented by the respective sit-down restaurant. Due to the scarce amount of literature on the topic, the research required that specific research instruments be designed for the purpose of investigating the topic at hand. The first tool, devised by the researcher, was the TQM interview, which was used to collect data on the QM practices implemented by the sample restaurants. TQM was the framework around which the interview questions were based, as it was deemed in Section 2.7 to be the framework most relevant to the restaurant industry.

All the employee interviews were analysed using content analysis (Table 13), which allowed numerical values to be attributed to the qualitative responses. Table 13 provides the reader with an indication of the scoring procedure conducted on Employee 2's interview at Restaurant B. It can be seen that for each TQM element the employee scored:

- 6 out of 9 for the 'employee empowerment' (EE) questions
- 2.5 out of 5 for the 'customer focus' (CF) questions
- 6.5 out of 9 for the 'continuous improvement' (CI) questions, and
- 0,5 out of 3 for the 'tools of quality' (TOQ) questions.

Thus, resulting in a total TQM score of 15.5 out of a possible 26. The TQM result presented above has little significance when considered independently. Therefore, to give meaning to the above-mentioned results they are considered together with the TQM results of the other restaurant employees - a concept that will be discussed later.

Each TQM element is made up of a number of questions which when answered correctly contribute towards a high TQM element score, and consequently a high overall TQM score. During the analysis of the data became evident that a shortcoming of the TQM questionnaire is that the number of questions representing each TQM element was different i.e. EE comprised of

9 questions, whereas the TOQ element consisted of 3. Thus, when calculating the sub-total scores for each element, those that are made up of more questions would often result in higher scores, which is misleading to the reader. One could be lead to think that 'employee empowerment' is a more significant element than 'customer focus', due to the higher scores produced by the TQM element. The inconsistency in the number of questions also allows the respondent to have a greater chance of obtaining a higher score for the elements that are made up of more questions, as opposed to those that comprise of fewer questions, thus generating skewed results.

In terms of the actual design of the content analysis table, the researcher was responsible for designing the method for analysing the content. The 'ideal answers' to the questions and the scoring procedure were decided upon by the researcher using logic and the theory on TQM explored in Section 2.5.1. The researcher was also responsible for allocating the scores to the employee responses. Thus, it is evident that the content analysis of the TQM interviews was highly dependent on the researcher's knowledge, thoughts and opinions, which opens the research up to criticism as it is speculated that bias becomes more prevalent as a result of the one dimensionality of the analysis method. Arguably, however, it can also be said that the researcher is the most knowledgeable person to conduct the analysis, due to their familiarity with the concepts of TQM resulting from their extensive research on the topic. Nevertheless, the drawback of the study's content analysis is noted, and considered unavoidable to a degree due to the qualitative nature of the study. Rajendran (2001) identifies that qualitative research often suffers from subjectivity due to the fact that the data needs to "go through" the mind of the researcher before it is expressed on paper. Due to the fact that the research stems from the researcher's interest, it is foreseeable that it will be affected by bias in one way or the other, therefore it is mandatory that the researcher acknowledges this bias (Rajendran, 2001).

The observations table presented in Section 3.3.4.2 was the means by which bias within the study was reduced. The observations table was used as a means of triangulating all the obtained data, which is discussed at a later stage. In addition, it is postulated that the validity of the content analysis results could be improved through the inclusion of an "external" examiner (knowledgeable in the field of quality management practices) to corroborate or argue the scores allocated by the researcher.

As identified in the literature review, qualitative interviews present many opportunities for the manifestation of biased results. Babbie (2014) puts forth that informants willing to interact with outside investigators are uncharacteristic within their group, and this can bias the obtained results. Bias is also prevalent in face-to-face interviews due to the fact that the respondent often

feels obligated to provide the researcher with the information they want to hear (Wengraf, 2001). In an attempt to reduce the presence of bias within the research the overall TQM scores for the restaurants were the main focus as opposed to the individual TQM scores obtained by each employee. It is speculated that by averaging the results, the potential for bias is somewhat reduced. It is assumed also, that the respondents are providing responses as close to the truth as possible. A fail-safe, once again however, is the observations table that aims to corroborate the finding of the TQM interviews.

Employee TQM Interview

The content analysis conducted on the employee interviews produced a single TQM score per employee (Table 18,19,20,21), which was a summation of the respective TQM element scores. The TQM element scores were averaged across the 8 employees to obtain the four average TQM *element* scores for each restaurant. In so doing, by summating the average TQM *element* scores the total TQM score was obtained for the restaurant. The tables indicate the method used to arrive at the TQM scores for each restaurant. The tables also clearly indicate the number of questions that make up a TQM element as well as their associated maximum obtainable scores. The total TQM results for Restaurant A, B, C, and D are 16.60 (Table 18), 16.63 (Table 19), 13.94 (Table 20) and 12.75 (Table 21) respectively.

The concerns raised in the preceding section regarding the misleading quality of the TQM element scores is presented in Table 22, where the EE and CI scores appear to be significantly higher than the TOQ scores and moderately higher than the CF. It can be seen that for Restaurant A, B and C the highest scores are attributed to EE and CI elements; the second highest to the CF element and the lowest score is attributed to the TOQ element. Restaurant D is the exception, however, as its CF score is comparable to its CI but this is attributed to the fact that it scored poorly in the CI element. Nevertheless, the results, present a scenario whereby the scores within the table appear to be weighted differently, due to the difference in the total obtainable scores per element, which is not the case. All TQM elements, for the purpose of the research at hand, are considered equally important to the calculation of the total TQM score per restaurant. Thus, the results in Table 22 required normalization in order to accurately reflect significance of the TQM scores.

The normalised TQM results (Table 23), allow for the TQM *element* scores to be paralleled as they are all now share a maximum obtainable score of ‘1’, as opposed to the former ‘9’ for EE, ‘5’ for CF, ‘9’ for CI and ‘3’ for TOQ. By normalising the results, the *maximum total* TQM score obtainable for each restaurant becomes 4, as opposed to the former value of 26.

Restaurant A obtained the highest normalised total TQM score of 2,47 (Figure 4) and Restaurant D achieved the lowest normalised total TQM score of 1,82 (Figure 4). Restaurant B obtained the second highest normalised total TQM score of 2,37 (Figure 4) and Restaurant C obtained to second lowest normalised total TQM score of 1,82 (Figure 4). The scores represent the degree to which TQM practices are present within the restaurant i.e. higher scores imply a greater usage of TQM practices.

Restaurant B obtained a score of 0,7 for EE (Figure 4), the highest of all the restaurants. The score implies that Restaurant B's employees are the most empowered in terms of their problem solving abilities, their role in the business and their input in decision-making. Restaurant A, B and C all obtained the same CF score of 0,8 (Figure 4) whereas Restaurant D obtained the lower score of 0,7 (Figure 4). This score would imply that Restaurants A, B and C's operations are centred on the customer more than those of Restaurant D. Restaurant A scored the highest CI score of 0,7 (Figure 4) of all the restaurants, which suggests that it engaged in the more CI methods than the other three restaurants. Restaurant A also obtained TOQ score of 0,4 (Figure 4) the highest of all the restaurants, denoting that the restaurant understands quality and makes use of various quality control tools.

To corroborate the abovementioned results, the four TQM elements were investigated individually using frequencies as opposed to average scores, where the scores were instead explored by assessing the occurrence of the allocated content analysis score (Table 24,25,26,27). Essentially, a count was conducted of the number of times a TQM element was allocated a score of '0', '0.5' and '1' for each restaurant.

It was identified that 49% of the responses obtained from Restaurant A pertaining to EE (Figure 5) were allocated a score of '1', implying that 49% of the responses obtained met the ideal answer. 61% of the responses obtained from Restaurant B (Figure 5), also pertaining to EE, received a score of '1'. Only 31% (Figure 5) of the responses from Restaurant C, relating to EE, obtained a score of '1' and only 37% of the responses from Restaurant D (Figure 5), relating to the same TQM element, received a score of '1'. Thus, exhibiting Restaurant B as the establishment that scored the highest in the EE element by achieving the greatest number of '1' scores for the relevant questions.

These frequencies support the finding presented by the mean of the employees TQM element scores (Figure 4), which identified Restaurant B as the restaurant with the highest EE score. It must be noted, however, that the frequency of the '1' score is not the sole determinant of the restaurant's standing, but the '0.5' score (denotes that the ideal answer was partially met) and '0' score (represents that the response failed to meet the ideal answer) are equally significant.

When considering the distribution of the '0.5' and '0' scores for the remaining 3 restaurants (Figure 5) it is evident that Restaurant D exhibits the second highest EE score, as it received the fewest '0' scores (17%), and the most '0.5' scores (46%) of the remaining restaurants. Even though 49% of the responses for Restaurant A received a score of '1', a large potion of the responses (25%) were allocated a '0' score, which is more than the 17% recorded for Restaurant D. This finding was lost in the process of averaging the TQM element scores as described in the preceding section. The averaged scores show Restaurant A and D to have the same EE score of 0.6, however, it fails to acknowledge the significance between the '1', '0.5' and '0' scores, which essentially portray Restaurant D as having a greater presence of EE than Restaurant A.

Figure 6, which represents the score frequencies for the CF element questions, corroborates the preceding statement, as it can be seen that in all restaurants 65% of the responses were allocated a score of '1'. The deciding factor in this regard is identifying the restaurant that was allocated the most '0.5' scores, and the fewest '0' scores, thus exhibiting Restaurant C as the establishment with the highest CF score. Using the same logic, and based on the frequency of the '0.5' scores it is apparent that the restaurants with the 2nd, 3rd and 4th highest scores are A (22%), B (20%), and D (10%) respectively. However, when comparing these results to those obtained by averaging the scores (Table 23) a discrepancy is again evident. The average normalised CF scores show that Restaurant A, B, and C share the same high score of 0,8. Once again, it is evident that obtaining a mean score across all employees creates ambiguous TQM element scores, while measuring the frequency presents a clear distinction between the Restaurant scores.

Figure 7 shows the distribution of '1', '0,5' and '0' scores across the restaurants for the CI interview questions. It can be seen that 53% of interview responses for Restaurant A received a score of '1' and 26% of the responses received a score of '0.5'. 21% of the responses obtained a score of '0', implying that they failed to meet the ideal response. Restaurant B is the only establishment with scores comparable to those of Restaurant A, where 46% of the responses obtained a score of '1', 35% received a score of '0.5' and only 19% received a score of '0'. Even though Restaurant A shows to have received the most '1' scores, it received more '0' scores and less '0.5' scores than Restaurant B, for these reasons Restaurant B is deemed to have performed better in the area of continuous improvement. This finding contradicts the result obtained through the mean value approach, where Restaurant A is shown to have the highest average TQM element score of 0,8 for CI.

Lastly, Figure 8 displays frequency of the scores attributed to the interview responses pertaining to the TOQ questions. The figure clearly shows that Restaurant A excelled in this area, having

obtained the most '1' scores (21%) and the fewest '0' scores (38%). Although Restaurant C received the second highest number of '1' scores (13%) it also received the most '0' scores (63%), and the least '0.5' scores. Thus it can be seen that Restaurant B performed second best, as 54% of the responses were assigned a '0', 42% were assigned a '0.5', which was more than both Restaurant C and D.

In conclusion, according to the results presented by the frequency tables (Table 23 to 27) the following can be said about the TQM element scores per restaurant:

- Restaurant D scored the highest for employee empowerment, followed by Restaurant A
- Restaurant C scored the highest for customer focus, followed by Restaurant A
- Restaurant A scored the highest for continuous improvement, and
- Restaurant A scored the highest for the tools of quality

From the above it can be seen that examining the frequency of the content analysis scores provides more conclusive results about the TQM *element* scores than by averaging the scores. Due to the fact that the scores attributed to each response are discrete i.e. '0', '0.5' and '1', averaging them has the tendency to create ambiguous and misleading results. By considering the frequency of the obtained scores greater meaning is attributed to the results, while obtaining averages across the discrete data values has the tendency to hide and flatten out anomalies in the results as indicated by the averaged TQM element results (Table 23).

Nevertheless, obtaining the average TQM element scores per respondent (Tables 17,18,19 and 20) is still necessary and important in the calculation of the total TQM score per restaurant (Table 22). In conclusion the results of the frequency tables present Restaurant A as the establishment with the highest TQM score, signifying that it shows signs of having implemented TQM practices to a degree, as it achieved the best scores for the continuous improvement and tools of quality questions and the second best scores for the employee empowerment and customer focus questions. This conclusion corroborates the results displayed in Figure 4.

Finally, the relationship between the employees' position in the business; their years of experience at the restaurant; and their corresponding TQM score was considered (Table 28). Although not the focus of the research, it is an interesting topic to consider for future research and is only briefly explored in this dissertation. It is indicated that for Restaurant A the higher TQM scores are associated with the respondents that have worked at the restaurant the longest and have the most experience. Respondent 8, the owner of the restaurant with 11 years experience -the most out of all the respondents, obtained the highest non-normalised TQM score of 22,5 (Table 28). Respondent 4, a waiter with 5 years experience (second highest of all

respondents) obtained the second highest TQM score of 20,5 (Table 28). Respondent 7 is the last to clearly reflect the relationship between experience (3 years) and TQM score (16). It can be seen that the respondents with more than 3 years experience obtain TQM scores of 16 or greater.

Restaurant B also indicates a relationship between experience, position and TQM scores, however the trend is not as distinct as that of Restaurant A as 7 out of 8 respondents have experience exceeding 4 years. Therefore, all respondents obtain a TQM score greater than or equal to 15.5 (Table 28).

Restaurant C does not display the relationship in the same way as Restaurant A, although there does appear to be a relationship between the position, experience and TQM score of respondent 4 (manager, 1 year experience, TQM score of 16,5) and 6 (owner, 5 years experience, TQM score of 19,5), there appears to be inconsistencies with the results of the remaining respondents i.e. respondent 5 and 8 are both waiters with the same years of experience at the restaurant yet the former obtained a TQM score of 9 and the latter obtained a score of 16,5 (Table 28).

Restaurant D, however, does to a degree also present a relationship between the respondent's positions, years of experience and TQM score. The highest TQM score (17,5) is associated with respondent 5, the manager who also has the most experience (7 years). Respondent 8 a waiter with the same years of experience as respondent 5 obtained a lower TQM score of 14,5.

Thus, the following could be said about the information considered above:

- The respondent's position in the restaurant does seem to impact the TQM score (employees higher up in the hierarchy show higher TQM scores). It is thought that the reason may be attributed to the fact that they have greater authority to make decisions, are more empowered, and therefore are able to accurately answer more questions.
- The number of years of experience also plays a role in the TQM score (the greater the experience the higher the TQM score). It is speculated that this might have something to do with their increased understanding of operations due to their long-standing relationship with the establishment. It could be said that the longer the employee works at the restaurant the more empowered they tend to be, however this is once more speculation and requires further investigation.
- Irrespective of the further research that is required, the results do present a trend amongst the sample restaurants. According to the theory on TQM, however, these trends should not be presenting themselves in a company that implements TQM. All employees at all levels of the business should be well versed in the company's quality management operations, equally as empowered and knowledgeable on the topic (Reid & Sanders, 2005) (Ishikawa & Lu, 1985).

Customer Surveys

Once again, as with the TQM interview instrument, the customer survey was designed purely for the purpose of the study at hand. It is unique in that it not only aims to measure the customer's experience of service quality in the restaurants, but also aims to discover more about the customer through the use of demographic-type questions. It is important to reflect on the power the customer has in determining the success and demise of a company; by becoming more aware of the thoughts and opinions of the customer the company's chances of adapting its operations to meet the needs of the customer increase (Mohanty, 1998).

The preliminary questions offer a means of better understanding the customer prior to evaluating their responses pertaining to the restaurant's service quality. Understanding the customer and their background is believed to provide context for the interpretations of the service quality questions, however, it must be noted that "understanding the customer" is not the main focus of the research but is a component that is unavoidably interconnected to the study. Zeithaml, and Parasuraman (1985) emphasise the fundamental role that the customer has in a company's quest for superior service quality, as it is the customer after all who defines quality.

Firstly, from the summary of the demographic results presented in Section 4.3.1 the following summary could be generated.

Questions 1,2, and 3 of the customer survey allowed for the following conclusion to be made:

- Restaurant A's sample consisted of the most 'first time' customers (29%)
- Restaurant C's sample comprised of the most 'return' customers (88%)
- Out of all the restaurants, Restaurant C's sample shows to have the highest volume of customers returning for 'food and the service' (67%), followed by Restaurant A (57%), Restaurant B (42%) and Restaurant C (36%).
- Restaurant C also showed to have the lowest amount of customers (0%) returning solely for the restaurant's 'service'. Similarly, however, none of the restaurants excelled in this regard. In each case only 2% of the return customers returned purely for the restaurant's 'service'.
- 32% of the return customers revisit Restaurant B for its 'food', which was the highest value of all the restaurants.
- Lastly, 32% of the return customers for Restaurant D do so for 'other' reasons namely 'convenience and environment' - a value that is roughly 5 times higher than the values recorded for the other restaurants.

Question 4 presented the following:

- Restaurant A and Restaurant C were selected by their respective customer samples as the customer's most favourite restaurants.
- Customers, however, did not select Restaurant B and D as their favourite restaurant.

The results of Question 6 identify that:

- Restaurant D had the overall youngest sample with 42% aging from 18 to 24.
- Restaurant C had the overall oldest sample with 32% aging from 45 to 54.

At this point however no true conclusions can be made about the results presented above as they merely provide context for the service quality questions, which will be explored later.

Table 29 depicts the frequency of recorded responses to Question 5 of the customer survey for each restaurant. To better analyse the results, they are arranged into two bar graphs, the first (Figure 9) presents the sample's response regarding the importance of service quality on whether or not they will revisit a restaurant, and the second (Figure 10) presents the sample's response to the importance of food quality on their revisit intentions. A relatively even distribution of customer responses between the significance scores of '4' and '5' is identified (Figure 9), and in all cases more than 40% of the customers from all restaurants attributed service quality with a significance score of '4' or '5'. Restaurant A and C reflected the largest percentage of customers who consider service quality highly significant. It is also identified that 57% and 60% of the customers from Restaurant A and C respectively selected the maximum significance score of '5' (Figure 9). For both restaurants however, 98% of the customers selected scores of either a '4' or '5', and only 2% selected a scores of '3'.

The results depicted by Figure 10, which pertain to the customer's views towards food quality, are less divided than those presented in Figure 9. It is unmistakeable that customers at all 4 restaurants share the same views about the importance of food quality on their revisit intentions. In all cases 78% or more of the customers identified food quality as being the most significant aspect when returning to a restaurant (Figure 10). Once again, however, Restaurants A and C reflected the largest percentage of customers who consider food quality 'highly significant'. It is identified that 83% and 87% of the customers from Restaurant A and C respectively selected the maximum significance score of '5' (Figure 10), implying a highly united front with regards to the importance of food quality on the customer's revisit intention.

Section 4.3.2 presents the results obtained from Question 7 and 8 (the SERVQUAL-type questions) of the customer survey. The occurrence of the various perception and expectation scores of the dimensions of quality associated with each of the 4 restaurants is recorded (Table 30,31,32,33), followed by a graphic portrayal the information presented by the four tables

(Figures 11 to 18). They have been included purely for the purpose of illustrating the spread of the relevant scores for the 5 dimensions of quality for the sample. The focus of the graphs is on the appearance of the distribution of the customer's scores rather than on the frequency of the score attributed to each dimension. At this point the distributions of the scores remains the focus of the discussion that follows.

Note: As mentioned in the previous chapter the SERVQUAL survey questions are represented in the text by the dimensions of quality, which they represent.

Tangibles – 'The appearance of the restaurant's physical facilities should be consistent with the type of service it provides'

Reliability – ' When customers have problems, restaurant employees should be sympathetic and reassuring'

Responsiveness – 'It is not realistic for customers to expect prompt service from the restaurant employees'

Assurance – 'Employees should be polite'

Empathy– 'It is unrealistic to expect employees to know what the needs of their customers are'

Figures 11 and 12 relate to Restaurant A's findings, the former represents the distribution of expectations scores for the 5 dimensions of quality, and the latter portrays the distribution of perception scores. Figure 11 shows that for the 'tangibles', 'reliability' and 'assurance' dimensions, the data are more skewed to the higher end of the score spectrum (mostly towards the '7'). This indicates that the customers had very high expectations of Restaurant A's service prior to arriving at the establishment. The 'empathy' and 'responsiveness' dimensions, however, do not follow the same trend. The frequency of expectations scores appears to be more evenly dispersed along the score spectrum (ranging from '1' to '7'). Figure 12 displays the results of the perception scores for Restaurant A, where customers rate their actual experience of the establishment. In this case the data is also skewed to the higher end of the spectrum, however, in this case it appears to be more evenly distributed amongst the '6' and '7' scores. For the customer perception scores, there is a higher occurrence of '6' scores across all the dimensions than was observed by the customer expectation scores. This implies that customers' perceptions of the service at Restaurant A are slightly lower than their expectations. Once again, however, the scores associated with the 'empathy' and 'responsiveness' dimensions appear to be less skewed and more evenly distributed.

The expectation scores for the customers of Restaurant B also appear to be skewed towards the higher end of the score spectrum (Figure 13). It is apparent that a high concentration of customer responses were recorded as a '6' and '7'; once again implying that customer expectations of the restaurant's service were high. It is also evident that, as in Figure 11, scores

for the ‘empathy’ and ‘responsiveness’ dimensions are not concentrated at the upper end of the spectrum as the other dimensions, but more evenly distributed along the scale. Inferring that the customers are divided in their views of the ‘empathy’ and ‘responsiveness’ dimensions. The distribution of customer perception scores for Restaurant B’s service quality are on average lower, and more spread out across the spectrum than their expectation counterpart (Figure 14). It is recognised that for this restaurant, the customers’ perceptions of quality are less unified. The spread of the responses could indicate that the restaurant’s service quality is varied, which results in inconsistent results amongst respondents.

Figure 15 depicts the distribution of customer expectations scores for Restaurant C. The figure clearly shows the data to be skewed to the higher end of the score spectrum, with a high volume of ‘7’ scores – denoting, once more, overall high expectations for the ‘reliability’ and ‘assurance’ dimensions in particular. The figure identifies that customers are unified in their view of the level they expect for ‘reliability’ and ‘assurance’. The ‘tangibles’ dimension seems to be divided between the ‘6’ and ‘7’ score; and once more the ‘responsiveness’ and ‘empathy’ scores appear to be distributed along the score spectrum, which is in agreement with the remark made in the previous paragraph. The distribution of the perception scores for Restaurant C indicate that perceptions are once more lower than expectations as the scores for the 5 dimensions are spread between ‘4’ and ‘7’ (Figure 16), as opposed to being concentrated at ‘7’ as presented by the expectation findings (Figure 15). The perception scores for Restaurant C are not as evenly spread as the responses of Restaurant B (Figure 14), however the spread does indicate inconsistencies in the delivered service quality, which prompts the customers to provide differing scores.

Figure 17 depicts the distribution of customer expectation scores for Restaurant D. The graph depicts a high volume of ‘7’ scores for each of the 5 dimensions. However, once more there appears to be an even split for the ‘tangibles’ dimension between the ‘6’ and ‘7’ score. Once again the ‘responsiveness’ and ‘empathy’ dimension scores are not concentrated at the upper end of the score spectrum, but are distributed across all scores. The perception scores for Restaurant D are less dispersed along the score spectrum and are mostly focused at the higher end of the spectrum across the ‘5’ and ‘7’ scores (Figure 18), with a predominant frequency spike in the region of ‘6’. Once again a trend is noticed amongst the ‘responsiveness’ and ‘empathy’ scores whereby the scores are somewhat spread across the scores spectrum. The frequency of the scores attributed to these two dimensions are comparable across the spectrum, and both also show a spike in the ‘6’ score region.

From the above it can be seem that a general trend occurs whereby the customer expectation scores differ from the corresponding perception scores for each restaurant, in that the expectations are generally attributed higher scores. This implies that in most cases the customers' expectations exceed their perceptions. Parasuraman, Zeithaml, and Berry (1988) identify that dissatisfaction in a service occurs when there is a discrepancy between the customer's expectation and perception of the service. Thus, in an establishment where service quality is exemplary, the distribution of customer perception (Figures 12,14,16 &18) should echo a similar if not identical distribution to the customer expectation scores (Figures 11,13,15 &17), as theory suggests that a satisfied customer is one whose perceptions meet or exceed their expectations.

The analysis of the distribution of the expectation and perception scores presents a trend- one that identifies the 'empathy' and 'responsiveness' scores to be more evenly distributed across the score spectrum than the scores of the other three dimensions. A finding, which could imply that in all cases the customers' view of a restaurant's approach towards 'empathy' and 'responsiveness' are divided and that the customers do not feel that the two dimensions are strong determinants of their experience of service quality. This finding, however, contradicts those presented by Namkung and Jung (2008) who identified that 'responsive service' was one of the most important elements contributing to the customer's satisfaction levels. Another possible cause for the irregularity in the scores could be credited to the fact that the two items are not considered internally consistent. It is suggested that for future studies, factor analysis be conducted on the instrument prior to its implementation. It is also important to consider, however, the fact that the survey questions pertaining to these 2 particular dimensions were negatively worded, which may have severely impacted the respondents understanding of the question, thus causing the results to vary greatly i.e. *'It is not realistic for customers to expect prompt service from the restaurant employees'* (responsiveness) and *"It is unrealistic to expect employees to know what the needs of their customers are"* (empathy) are negatively worded.
The scores for the remaining three dimensions, however, reveal that in all cases the customer's expectations of service were higher than their perceptions of the received service. The data thus imply that customers have high expectations of service, which the restaurants are essentially failing to meet.

Table 34 presents the average gap score results for each restaurant as well as the corresponding "SERVQUAL" scores. The gap score represents the extent of the discrepancy between the customer's perception and expectation score, and is calculated by subtracting the expectation score from the corresponding perception score. Negative gap scores imply that the customers' expectations exceed their perceptions, whereas a positive gap score implies the opposite. For the

purpose of this research, the gap scores are considered more important than the actual survey scores as they depict the extent to which the restaurant fails to, or succeeds in, meeting the customer's expectations of service quality, irrespective of whether on not the customer's expectations are low or high. It is important to realise at this point that a gap score of 0 could mean one of two things, that the customers' perception and expectations are both equally high (7-7=0) or that they are both equally low (2-2=0), for this reason the graphs discussed in the preceding section are important when analysing the gap scores, as they allow one to identify the nature of the gap.

Figure 19 graphically represents the *average* gap scores per dimension of quality, and how they contribute towards the restaurants average 'SERVQUAL' score. It can be seen that the average gap scores for Restaurant B are relatively high, with 3 out of 5 dimensions displaying the highest negative gap scores of all the restaurants. More specifically, Restaurant B's 'reliability', 'responsiveness' and 'assurance' dimensions depict gap scores of -1.14, -0.8 and -1.1 respectively. These scores indicate that customers' perceptions of the restaurant's service quality in these 3 areas were significantly lower than that of their expectations. This finding is supported by Figures 13 and 14, where it is indicated that an expectations score of '7' was selected by 62% of the customers for 'reliability', by 80% of the customers for 'assurance', and by 44% of the customers for 'responsiveness'. The volume of customers that selected a score of '7' for the expectations far exceeds the percentage that selected a '7' perception score for the equivalent dimensions.

Interestingly, for all four restaurants only the 'empathy' dimension depicts a positive average gap score (Figure 19), which indicates that in all cases this is the only area where customer's perceptions surpassed their expectations. Albeit, their 'empathy' expectation scores were not focused at the top end of the spectrum and ranged from low to high the conclusion remains the same, the customer's perceptions exceed their expectations for this dimension. Restaurant A depicts an 'empathy' gap score close to '0' (0.02) denoting that the customer's perceptions were well aligned with their expectations in this instance. Restaurant A is the only restaurant that shows a positive average gap score (0.32) for the 'responsiveness' dimension (Figure 19).
In all cases the 'tangible' dimension obtained the smallest negative gap score, showing that the customers expectations only marginally exceeded their perception scores. It is also interesting to note that the average gap score recorded across all the restaurants was relatively consistent for this dimension (Restaurant A= -0.11; Restaurant B= -0.16; Restaurant C= -0.15; and Restaurant D= -0.14), which indicates that the customer's perceptions and expectation were well aligned in this regard. A finding that could be investigated to a greater degree in future studies.

Figure 19 clearly shows that according to the average gap scores, Restaurant A is shown to have the lowest overall gap scores and therefore rises as the restaurant that most closely meets the expectations of the customer. Restaurant B is shown to possess the largest amount of negative gap scores, which indicates that the restaurant failed on numerous accounts to meet the expectations of the customer.

As mentioned in the preceding paragraphs, an anomaly was noted in the responses obtained for the "empathy" and "responsiveness" dimensions; which does seem to present itself once more by the results depicted in Figure 19. It is peculiar that the only positive gap scores recorded are for the 'empathy' and 'responsiveness' dimensions. Thus, a further examination is conducted into the *actual* gap scores obtained from the customer responses for each of the 5 dimensions of quality, to further investigate the results presented by Figure 19.

The frequency of the gap scores for each dimension of quality was recorded as a percentage of the sample customers per establishment e.g. for Restaurant A 13% of the responses for the 'tangibles' dimension obtained a gap score of -1 (Table 35). Consequently, this information was presented graphically where the distribution of gap scores for each dimension of quality is depicted for the four restaurants (Figures 20, 21, 22, 23 & 24). The distribution of gap scores amongst the restaurants for the 'tangibles' dimension (Figure 20) appear to be normally distributed with a high concentration of scores between -1 and 1 with the majority clustering at the 0 gap. The distribution of the gap scores recorded for the 'reliability' dimension (Figure 21) also remotely resembles a normal distribution, however, the scores are skewed towards the negative end of the spectrum between '-3' and '1', where '-1' and '0' appear to be the most frequent gap scores amongst the sample restaurants for this dimension. The distribution of the gap scores for the 'responsiveness' dimension (Figure 22) show that a minimum of 30% of the recorded gap scores are '0', whereas the remaining 70% of calculated gap scores are dispersed between '-6' and '6'. The spread of the gap scores for the 'assurance' dimension (Figure 23) once more resembles normally distributed data, which is slightly skewed to the negative end of the spectrum. It does, however, indicate a regular distribution of gap score values where more than 60% of the recorded gaps for each restaurant are either a '-1' or '0'. The distribution of the 'empathy' gap scores (Figure 24) is reminiscent of the one presented by the 'responsiveness' dimension (Figure 22). The gap scores recorded for the 'empathy' dimension are spread widely and range between '-3' and '3'. Thus, it can be seen that the graphs presented by the 'tangibles', 'reliability' and 'assurance' dimensions (Figures 20, 21, 23) indicate minor variations in the responses obtained from the customer, attributing to less dispersed gap scores. For these three dimensions the customers appear to be more united in their responses. The data obtained for the 'responsiveness' and 'empathy' dimensions (Figures 22 and 24), however, show a greater

variation in the gap scores, and in essence a greater variation in the customers' responses to the questions pertaining to these dimensions. Customers once more appear to be divided in their responses in these areas; which results in the larger dispersion of the data. It is speculated that the cause for these irregularities could be attributed to the following:

1. The customers' attitudes towards 'responsiveness' and ' empathy' within a restaurant could differ due to social or psychological factors. Ladhari (2009) identifies that expectations can vary among different segments of customers.
2. The negatively worded questions that measured 'responsiveness' and 'empathy' were misunderstood by the respondent and created confusion, thus resulting in misleading and indiscriminate results.

Both conclusions require investigation that extends past the scope of this dissertation, therefore it is suggested that they be considered in future research.

Section 4.3.3 presents the results obtained for the three questions pertaining to Question 9 of the customer survey. The question measures the customers overall opinion of the service they experienced at the restaurant. The occurrences of the obtained customer responses were recorded (Table 36) for each of the three questions, per restaurant. The responses obtained are compared between the restaurants for the three questions, where the responses for each question are graphically represented (Figures 25, 26, & 27). The responses obtained for the first question (Figure 25) indicate that for all four restaurants, the majority of the customers (Restaurant A = 43%, Restaurant B=38%, Restaurant C= 40% and Restaurant D=38%) selected a score of '6' indicating that they "*agree* that the restaurant's quality of service is quite high". For Restaurant A and D, however, the same percentage of customers selected a score of '7' (the higher rating) indicating that they "*strongly* agree that the restaurant's quality of service is quite high". Thus, according to these results Restaurant A is portrayed as the restaurant with the highest level of service quality (Figure 25).

The results of the second question (Figure 26) identify that the majority (49%) of the customers at Restaurant A selected a score of '7' implying that they "*strongly* agree to recommending the restaurant to friends and family for the type of service they received". Once again, the same amount of customers (49%) at Restaurant C appeared to have selected the same score. Both restaurants scored higher in this question than the remaining two restaurants. Restaurant A, however, also obtained the highest amount of '6' scores out of all the restaurants thus implying that it once again, as a result of its service quality, produced the highest volume of satisfied customers. Lastly, the results of question 3 (Figure 27) show Restaurant A as having created the highest number of satisfied customers, as 68% of customers selected the high scores of '6' or

‘7’. Implying that 45% ‘agree’ and 23% ‘strongly agree’ to choose Restaurant A’s service over others in the future.

Thus, it can be seen that the results of Question 9 present Restaurant A as the restaurant with the highest level of service quality and therefore the restaurant with the most satisfied customers. This conclusion corresponds to the finding identified by Questions 7 and 8, which identify Restaurant A as the establishment with the highest SERVQUAL score of all the restaurants. This implies that the customer’s perceptions of the restaurant’s service surpassed their expectations, which suggests higher levels of service quality.

Prior to continuing with the analysis of the results, the potential relationships between the results of the demographic-questions (Section 4.3.1) and the SERVQUAL scores (Section 4.3.2) are considered. Question 1 of the customer survey identified that Restaurant A’s sample consisted of the most ‘first time’ customers (29%). This potentially suggests that a larger portion of Restaurant A’s customer’s expectation scores were less prejudiced by previous visits to the establishment. This finding, however, requires further investigation in the future. Nevertheless, there doesn’t appear to be a strong correlation between the responses obtained for Question 2 and the SERVQUAL scores. Restaurant A is identified to have the highest level of service quality, yet only 2% of the return customers revisit for its ‘service’. The responses obtained for Question 4 of the customer survey, indicate that Restaurant A and Restaurant C were identified as the majority of the customers’ favourite restaurant. It is speculated that this may be creating prejudiced SERVQUAL results, as these are the two restaurants that obtained the highest SERVQUAL scores (Table 34).

Question 5 once more shows a correlation to the SERVQUAL scores whereby 98% of Restaurant A and B’s sample determine service quality to be an important factor in their decision to revisit a restaurant (Table 29). This finding, thus to a degree authenticates the SERVQUAL scores obtained for the two restaurants, as the customers’ opinions of the importance of service quality are high and therefore their associated SERVQUAL scores are deemed to be more ‘trustworthy’.

Comparison of the Research Instrument Results

Section 4.4 presents the comparative evaluation of the results obtained from the three research instruments. Firstly, a comparative summary of the observations made by the researcher is examined, which identifies that for all four restaurants there was no physical evidence of the use of quality control tools in the form of checklists, Pareto charts etc. Work teams and work groups as such were not prominent at any of the four restaurants. An increased amount of teamwork was observed at Restaurant B and C, where employees helped each other with meal orders and

setting-up and closing-up the restaurant. However, work teams as defined by Reid and Sanders (2005) that problem solve and are involved in decision-making, were not observed in any of the restaurants. Staff meetings were only observed at 2 of the 4 restaurants (A & B). None of the waiters appeared to be able to deal with complaints or issues of any sort without approaching the manager or owner first- an observation that recognises the low levels of employee empowerment amongst the employees in the lower hierarchical positions of the restaurants. Lastly, in terms of the staff's interactions with customers at the various restaurants, only the employees at Restaurant's C and D made an impression. They were identified to be proactive, in dealing with customers. The managers at both the establishments made an attempt to check on all customers at least once and appeared to have relationships with their customers.

Section 4.5 presents the final comparative analysis of the results of the study. The results of Question 8 (the SERVQUAL perception scores) and Question 9 of the customer survey are compared in an attempt to investigate reliability. The reason for this is to explore whether the customers' expectation scores distort the SERVQUAL scores and present results that do not truly reflect the restaurant's levels of service quality. Question 9 purely measures the customers' opinions of the restaurant's service, and it is therefore compared to the customer's perception scores. Table 38 depicts the comparison of the modal scores for Question 8 and 9 of the customer survey for all four restaurants. The table clearly depicts that the overall mode for the responses to the perception questions for Question 8 of the survey are '6&7', '6', '6', and '6' for Restaurants A, B, C and D accordingly. The table also indicates that for Question 9 of the survey the mode response for Restaurants A, B, C and D is '6&7', '6', '6', and '6' respectively. This indicates a correlation between the scores for Question 8 and the scores for Question 9, as the mode response to Question 8 and 9 is the same for all restaurants. This finding suggests that the perception scores provided by the customers are reliable as they correspond to the scores acquired by Question 9. Restaurant A is once more identified to have the highest level of service quality as the modal scores for Question 8 and 9 are recorded as '6' and '7', as opposed to the other three restaurants whose mode score is identified as '6' (Table 38).

The observations table findings are compared to the results of the TQM interviews and it is identified that in all cases the observations corroborate the responses provided by the employees during the TQM interviews. Although the observations table is only able to corroborate 5 of the 30 TQM interview questions, it does increase the reliability of the TQM interview by supporting the respondent's answers. It is recognised that the observations table verifies only 17% of the TQM questions, and it is therefore acknowledged that the TQM interview does require a more intense verification procedure.

Finally, the TQM scores and relative SERVQUAL scores for all four restaurants are compared (Table 39) culminating the research findings. The data shows a relationship between the TQM and SERVQUAL scores for the Restaurant A, C and D - as the TQM scores increase so do the SERVQUAL scores. Restaurant B's TQM and SERVQUAL scores do not follow the trend depicted by the other restaurants, and is determined an outlier. This inconsistency is attributed to the large gap scores recorded for its 'reliability' and 'assurance' dimensions. These two gap scores were the largest of *all* recorded gap scores, the cause for which is believed to be credited to,

- the high volume of '7' expectation scores (80%) and low volume of '7' perception scores (26%) for the 'assurance' dimension creating an extreme discrepancy, and
- the high volume of '7' expectation scores (62%) and low volume of '7' perception scores (12%) for the 'reliability' dimension once again producing an extreme gap

Nevertheless, the reason for these highly skewed results is unknown. Irrespective of the anomaly identified for Restaurant B, is evident that as the TQM scores increase, so do the SERVQUAL scores. At this point, no real conclusions can be made as to the nature of relationship, nor can any evidence be given to the strength of this relationship due to the small sample size. Care must be exercised when putting forth a notion based on so few data points. That being said, the research does still offer a starting point for further research into the topic.

Chapter 6: Conclusion, Recommendations and General Observations

This chapter presents the conclusions of the research as well as general observations and recommendations for future research.

6.1. Conclusion

In light of the results presented in the preceding chapter the following conclusions can be made:

1. The perception and expectations scores were identified for each dimension of quality for the customers at each restaurant.
    - It was identified that at all restaurants, the customer expectation scores exceeded their perception scores for all dimensions except 'empathy'. Restaurant A was also the only establishment to reflect perception scores greater than expectation scores for the 'responsiveness' dimension.
    - The gap scores for 'empathy' and 'responsiveness' dimensions were highly varied, and could be attributed to the fact that these two questions were negatively worded in the survey instrument.
    - Using the perception and expectation scores, the final SERVQUAL scores were calculated for each restaurant and Restaurant A was identified as the restaurant with the highest SERVQUAL score.
2. A general presence of TQM was established at all the restaurants through the use of the TQM interview, however, Restaurant A obtained the highest TQM score of all the establishments implying a greater presence of TQM practices within its operations.
3. In conclusion, the research identifies a relationship between the restaurant TQM and service quality, whereby restaurants that showed a greater presence of TQM practices (higher TQM scores) also appeared to have better service quality (higher SERVQUAL scores). The nature and strength of the relationship remains undetermined, due to the small sample size, nevertheless a correlation it evident as the results provide clear evidence of a relationship between TQM and service quality in the sample restaurants.

6.2. Recommendations and General Observations

It is suggested that in order to further the results of the study the following aspects should be considered regarding the design of the study:

1. Due to the non-probabilistic sampling method used in acquiring the TQM interview sample and customer survey sample, there is no true way of identifying the extent to which the sample represents the population. Therefore the conclusions made in this study cannot be directly applied to all restaurants and more research should be conducted into identifying a sample that more accurately represents the population.
2. Another concern is the fact that the sample customers are not constant for each restaurant i.e. Customer 2 at Restaurant A is completely different to Customer 2 at Restaurant B. Therefore, not only do the sample restaurants vary, but so do the customers. It is speculated that by keeping the customer constant, a move accurate result would be obtained for the service quality scores. It is natural that the views and opinions of the customers are diverse, and dependent on social factors (Ladhari, 2009) (Furrer, Liu, & Sudharshan, 2000). It is suggested for future studies, that the customer remains constant so to eliminate variation and allow for a clearer unbiased view of the restaurant's service quality.
3. Parasuraman, Zeithaml, & Berry (1988) identify that over a period of time satisfaction of a service may lead to the perception of good service quality. Therefore, it is suggested that the study be conducted on 'first time' customers only, as it is speculated that regular customers may have distorted expectations of service quality based on their previous experiences of the establishment.
4. Furrer, Liu and Sudharshan (2001) explore the idea that people of varying cultures interpret service quality in different ways and this aspect may have an effect on the results obtained. Due to the fact that the restaurants are located in different regions of Johannesburg, the customers my have had different opinions of service quality, which could have biased the results. This is a concept that could be explored in the future.
5. It is also questionable whether using a SERVQUAL-type instrument is the best approach to measuring service quality at the restaurants, as it is a confusing and tedious instrument. It is also debatable whether the expectation scores provide any valuable information or whether they merely distort the results. It is suggested that another instrument be investigated for the purpose of measuring service quality.
6. As mentioned in Chapter 2, the SERVQUAL scale is criticised for its polarity in the wording of the 22 items (Kulasin & Fortuny-Santos, 2005), as some questions are negatively worded and others are positively worded which is considered to impact the respondents' outlook on the question. The results of the study supplement this notion and once again calls into question the effectiveness of the SERVQUAL instrument in this study.
7. The TQM interview instrument designed for the purpose of this research is deemed an effective means of identifying the presence of TQM practices within the sample

restaurants, however more research is required in order to test the instrument and its application to other restaurants outside of the current sample.

8. It is recommended the TQM require a greater level of verification to deem it applicable to more restaurants.
9. It is also suggested that further exploration be conducted into the reason why average gap score recorded across all the restaurants for the ‘tangibles’ dimensions was so low and consistent. It was the only dimension that produced consistent results across the sample restaurants.

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Appendices

Appendix A

This appendix contains information that was used during the construction of the literature review, but was not deemed significant enough to be included in the dissertation.

A.1. The Development of the SERVQUAL Instrument

The process undertaken to develop the SERVQUAL scale, and its transformation from a tool that initially comprised of 10 quality dimensions and almost 100 items/questions, to the final (and current) version of the tool. The research also examines the reliability and validity of the final SERVQUAL instrument. The reliability of the 5 dimensions is assessed through the use of Cronbach Alpha and it is determined that for the study's sample (banking, credit card, repair and maintenance, and long distance telephone) the scale depicts a high level of reliability and dimensional distinctiveness. Thus, the reliabilities and factor structures attained suggest that the 22-item SERVQUAL scale is psychometrically thorough and stable. However, due to the fact that the 22-item SERVQUAL instrument was developed through the use of a specific sample, the authors suggest that the instrument may require altering to make it more appropriate for the examination of a different industry. (Parasuraman, Zeithaml, & Berry , 1988)

The scale's validity is also examined in the study, the high reliabilities and factor structures of the scale result in its trait validity, however these do no have any effect on the scale's construct reliability. This form of reliability is a measure of the scale's ability to capture explicitly the fundamental construct being measured. This form of validity is examined qualitatively by looking at the thoroughness of the explanation of the construct and its domain as well as the extent to which the domain was represented by the scale items. Finally, the convergent validity of the instrument was examined by the empirical analysis of the connection between the SERVQUAL scores and a final question (separate from the SERVQUAL questionnaire) to the respondent asking for an overall quality rating of the firm. All forms of validity examined in the research indicate that the SERVQUAL instrument has high validity. (Parasuraman, Zeithaml, & Berry , 1988)

A.2. The Original SERVQUAL Instrument

THE SERVQUAL INSTRUMENT[a]

DIRECTIONS: This survey deals with your opinions of ——— services. Please show the extent to which you think firms offering ——— services should possess the features described by each statement. Do this by picking one of the seven numbers next to each statement. If you strongly agree that these firms should possess a feature, circle the number 7. If you strongly disagree that these firms should possess a feature, circle 1. If your feelings are not strong, circle one of the numbers in the middle. There are no right or wrong answers—all we are interested in is a number that best shows your expectations about firms offering ——— services.

E1. They should have up-to-date equipment.
E2. Their physical facilities should be visually appealing.
E3. Their employees should be well dressed and appear neat.
E4. The appearance of the physical facilities of these firms should be in keeping with the type of services provided.
E5. When these firms promise to do something by a certain time, they should do so.
E6. When customers have problems, these firms should be sympathetic and reassuring.
E7. These firms should be dependable.
E8. They should provide their services at the time they promise to do so.
E9. They should keep their records accurately.
E10. They shouldn't be expected to tell customers exactly when services will be performed. (−)[b]
E11. It is not realistic for customers to expect prompt service from employees of these firms. (−)
E12. Their employees don't always have to be willing to help customers. (−)
E13. It is okay if they are too busy to respond to customer requests promptly. (−)
E14. Customers should be able to trust employees of these firms.
E15. Customers should be able to feel safe in their transactions with these firms' employees.
E16. Their employees should be polite.

E17. Their employees should get adequate support from these firms to do their jobs well.
E18. These firms should not be expected to give customers individual attention. (−)
E19. Employees of these firms cannot be expected to give customers personal attention. (−)
E20. It is unrealistic to expect employees to know what the needs of their customers are. (−)
E21. It is unrealistic to expect these firms to have their customers' best interests at heart. (−)
E22. They shouldn't be expected to have operating hours convenient to all their customers. (−)

DIRECTIONS: The following set of statements relate to your feelings about XYZ. For each statement, please show the extent to which you believe XYZ has the feature described by the statement. Once again, circling a 7 means that you strongly agree that XYZ has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers—all we are interested in is a number that best shows your perceptions about XYZ.

P1. XYZ has up-to-date equipment.
P2. XYZ's physical facilities are visually appealing.
P3. XYZ's employees are well dressed and appear neat.
P4. The appearance of the physical facilities of XYZ is in keeping with the type of services provided.
P5. When XYZ promises to do something by a certain time, it does so.
P6. When you have problems, XYZ is sympathetic and reassuring.
P7. XYZ is dependable.
P8. XYZ provides its services at the time it promises to do so.
P9. XYZ keeps its records accurately.
P10. XYZ does not tell customers exactly when services will be performed. (−)
P11. You do not receive prompt service from XYZ's employees. (−)
P12. Employees of XYZ are not always willing to help customers. (−)
P13. Employees of XYZ are too busy to respond to customer requests promptly. (−)
P14. You can trust employees of XYZ.
P15. You feel safe in your transactions with XYZ's employees.
P16. Employees of XYZ are polite.
P17. Employees get adequate support from XYZ to do their jobs well.
P18. XYZ does not give you individual attention. (−)
P19. Employees of XYZ do not give you personal attention. (−)
P20. Employees of XYZ do not know what your needs are. (−)
P21. XYZ does not have your best interests at heart. (−)
P22. XYZ does not have operating hours convenient to all their customers. (−)

---

[a] A seven-point scale ranging from "Strongly Agree" (7) to "Strongly Disagree" (1), with no verbal labels for the intermediate scale points (i.e., 2 through 6), accompanied each statement. Also, the statements were in random order in the questionnaire. A complete listing of the 34-item instrument used in the second stage of data collection can be obtained from the first author.

[b] Ratings on these statements were reverse-scored prior to data analysis.

A.3. Applications of the SERVQUAL instrument

SERVQUAL in the hotel industry

Ramsaran-Fowder (2006) investigates the applicability of the SERVQUAL instrument and its 5 generic dimensions of quality to the hotel industry. The study made use of a convenience sample of 32 tourists visiting the island for a vacation. The tourists were questioned using in-depth interviews for 45-60 minutes. Respondents were required to answer questions regarding their gender, age, country of origin, marital status and occupational status before they were interviewed further to ensure sample diversity and dependability of the results. The respondents were asked a series of open-ended questions about what they expect from hotels in terms of service quality. They were deliberately not exposed to items from the SERVQUAL instrument. The study ascertains two new quality dimensions applicable to the hotel industry, 'core hotel benefits' (the benefits to hotel customers) and 'hotel technologies' (technological services available to hotel guests) (Ramsaran-Fowder, 2006). Consequently, providing evidence to prove that the SERVQUAL tool does in fact require some adjustment to account for aspects within the hotel industry that influence the customer's perceptions of quality that are not accounted for by the generic model (Ramsaran-Fowder, 2006).

SERVQUAL in the restaurant industry

Bojanic and Rosen (1994) investigate the applicability of the SERVQUAL instrument to the restaurant industry. The restaurant had a diverse menu; and acted as both a bar and restaurant with an average main course cost of $8 (roughly R96). The study was conducted over a period of a week, whereby 85 customers were given 2 questionnaires to answer, so that customer expectation and perception could be investigated on a discrete basis. The first questionnaire was handed to them before they were seated at their table in order to assess their expectations of the service. After the customers had completed their dining experience they were given a second survey to answer pertaining to their perceptions of the experience. Factor analysis as used by Parasuraman, Zeithaml & Berry (1988) was performed to reduce the 22-item scale into the correct number of service quality dimensions. Item-to-total correlations were used to establish whether or not the subsequent dimensions provide a realistic measure of service quality. Furthermore, regression analysis was performed to decide if there was any correlation between the five dimensions and overall quality perceptions.

The results of the study as noted by Bojanic & Rosen (1994), were the following:

The empathy dimension present in the original SERVQUAL instrument was divided into 2 new dimensions 'knowing the customer' and 'access' (to the waiter)

According to the restaurant customer's expectations of service the most important dimensions (ranked from most to least important) were assurance, reliability, tangibles, access, responsiveness, knowing the customer

According to the restaurant customer's perceptions of service the most important dimensions (ranked from most to least important) were assurance, reliability, tangibles, access, responsiveness, knowing the customer

A.4 Quality Control Frameworks

A.4.1 Lean

The elements that make up the Lean framework, as identified by Bicheno & Holweg (2009) are summarized below.

Customer focus

Lean, like TQM, focuses on satisfying the customer. A starting point for the implementation of Lean is to determine value from the customer's point of view. The aim of Lean is to provide the customer with that which he/she expects, and not with something that is convenient for the manufacturer. Processes are designed to achieve the 'Six Rights' in the eyes of the customer: the right product, place, quantity, time, quality and cost.

Value stream

Lean does not focus on one aspect of the business, but on the entire supply chain. It, like TQM, looks at the entirety of the business, by examining the sequence of processes from the raw materials to the consumer (end of the line). Emphasis is placed on supply chain efficiency where economies of time are vital as opposed to the usual economies of scale. Lean companies map their supply chain in order to assess the overall performance of the value stream.

Flow

Flow is of utmost importance in lean thinking. The aim of Lean supply chains is to ensure that value (in the form of products) flows easily through the supply chain to meet demand. Optimistically Lean aims to achieve one-piece flow, whereby products are continuously moving (singularly) through the supply chain without any delays. Queuing, batching, and waiting are deemed highly wasteful in a Lean supply chain/ production line and are avoided (or at least constantly reduced) at all costs.

Pull

Lean businesses plan their supply chains and operations to adhere to a "pull" rather than a "push" strategy. This means that products are produced to meet (and not exceed) the rate of actual customer demand as opposed to forecast demand. Pull systems work on a make-to-order basis, however limited inventory is stocked in case of a fluctuation in demand. Supply chains that practice "pull" strategies avoid the bullwhip effect (increasing fluctuations in inventory to account for a large spike in customer demand) that is prevalent in "push" systems.

Waste

This is often seen as the central element of the lean philosophy. Waste is considered as any activity in the system that does not add value, and before it can be eliminated or prevented it needs to be identified. Taiichi Ohno (the father of the Toyota Production System) identifies 7

wastes in the manufacturing industry that are to be eliminated/reduced to ensure the efficiency of operations, they are transportation, inventory, waiting, overproduction, motions, over-processing and defects.

Seven service wastes are discussed by Bicheno & Holweg (2009) and are summarised in Table 1.

Table 10: Examples of the 7 Wastes

Waste	Example
Delay	Queuing for a service or awaiting service delivery
Unclear communication / seeking clarification	Waiting in the wrong queue in a bank
Incorrect inventory	Products are out of stock and are unable to deliver on service
Opportunity lost	Ignoring or turning away customers
Errors	Product defects (undercooked/overcooked food)
Unnecessary movement	Queuing several times
Duplication	Repeating details on numerous order forms

A.4.2. Business Process Reengineering (BPR)

Below are the four main pillars of the BPR framework as described by Slack & Lewis (2011)

Cross-functional processes

Rethinking business processes to manage tasks around the natural flow of information, materials or customers. Processes are organised around outcomes rather than inputs; around the entire value adding (for customers) process. In BPR the actions that execute the several phases of the value-adding activity are less important.

Dramatic improvements

Improvements are made to performance by radically redesigning the processes within the business. Organisational confines and job obligations are redefined.

'Short fat' processes

Ensure that 'internal customers' can be their own suppliers. This means that fewer employees perform more tasks.

Merging action with control

Combine those who perform the tasks with those who manage the tasks.

A.4.3. Six Sigma

The main elements of the Six Sigma as identified by Slack & Lewis (2011) are summarized in the sections that follow.

Customer focus

Six Sigma compares the output of the processes with the customer's requirements, thus it can be seen that Six Sigma too places a great emphasis on the customer. All products manufactured are to fall within the customer's desired specification limits, and those practicing Six Sigma use the terminology defects per million opportunities (DPMO) to define performance.

Quantitative analytical methods and trained practitioners

As with TQM, Six Sigma also makes use of statistical techniques to analyse the success of the processes within the business. Great emphasis is placed on the use of quantitative evidence to validate success or verify breakdown. The statistical methods used by Six Sigma practitioners are not conventional methods, for example the use of observational data collection methods. Due to the fact that processes change over time, the Six Sigma approach also focuses on periodically measuring and plotting (over time) the performance of the most important of the processes. This way, the company is able to regularly check process capability and process variation over time.

Six Sigma emphasises investing significantly in training management in mastering quantitative analytical, organisational and interpersonal skills. The terms Master Black Belt, Black Belt and Green Belt represent the employees' level of expertise in Six Sigma skills and techniques.

The DMAIC cycle

Six Sigma's DMAIC cycle is similar to TQM's plan-do-check-act cycle. It is also an improvement cycle, with steps that slightly differ form TQM's cycle. The cycle comprises of the following steps:

- *Define* the problem in order to understand the scope and define the requirements that are to be met
- *Measure* exactly what is happening in order to confirm that there is an issue this is the phase in which data and hard evidence is used
- *Analyse* the root cause for the issues, this is where hypotheses are developed
- *Improve* the process. Develop and test solutions to the problem
- *Control* and monitor the improved process to confirm that improvements are maintained

The cycle is continuous and optimistically should never cease, so that improvement can be continuous.

Appendix B

B.1. TQM interview tool

Appendix B.1 displays an image of the table used to record the employee responses during the TQM interviews.

PRELIMINARY QUESTIONS		
QUESTION	**RESPONSE**	**NOTES**
1. Consenting to being voice recorded? (Yes/No)		
2. A.What is your job description? B. What do you do here?		
3. How long have you worked here?		
4. What are your qualifications? Have you had any training? If so, please elaborate.		
TQM QUESTIONS		
QUESTION	RESPONSE	**NOTES**
I. What is the aim/goal of the business?		
II. How important are the needs of the customer on a scale of 1-5?		
QUESTION	RESPONSE	**NOTES**
III. What do you understand about customer expectations?		
IV. What do you understand about customer requirements?		
V. Which is more important?		
VI. Do you implement changes in the business? If so, how often? What kinds of changes?		
VII. Why do you implement these changes?		
QUESTION	RESPONSE	**NOTES**
VIII. Do you ever have customer complaints?		
IX. What do they complain about?		
X. What is your role in the business?		
XI. What are your duties?		
XII. What is quality? What do you understand about quality? Definition?		
XIII. What is the role of those around you (your fellow employees) ?		

QUESTION	RESPONSE	NOTES
XIV. What do you do in the event of a complaint? (How do you go about dealing with it?)		
XV. How do you prevent these issues?		
XVI. Do you have staff meetings?		
XVII. How often?		
XVIII. What is discussed?		
XIX. Do you do anything with the information that is discussed in meetings?		
XX. Do you compare yourselves with other restaurants? Why? With whom?		
XXI. What do you compare?		

B.2. Finalised Observations Table

Below is an image of the observation table used during the study at the relevant restaurants to record the current state of procedures at the restaurant.

OBSERVATIONS	COMMENTS
Evidence of the presence of the 7 tools of quality	
Presence of work teams or groups	
Observe the procedures undertaken when a complaint or issue occurs. Who do they go to? Is there a hierarchy?	
Staff's interactions with the customers	

B.3. Restaurant SERVQUAL Instrument

The following SERVQUAL Instrument is reproduced from the source: Bojanic, D. C., & Rosen, D. L. (1994). Measuring Service Quality in Restaurants: An Application of the SERVQUAL Instrument. *Hospitality Research Journal , 18*, 3-14.

The SERVQUAL Instrument[a]

Part I: Expectations

Directions: This survey deals with your opinions of restaurant services. Please show the extent to which you think restaurants should possess the features described by each statement. Do this by picking one of the seven numbers next to each statement. If you strongly agree that restaurants should possess a feature, circle the number 7. If you strongly disagree that restaurants should possess a feature, circle 1. If your feelings are not strong, circle one of the numbers in the middle. There are no right or wrong answers—all we are interested in is a number that best shows your expectations about restaurant services.

1. Restaurants shouldn't be expected to tell customers exactly when services will be performed. (-)[b]

2. It is okay if the restaurant is too busy to respond to customer requests promptly. (-)

3. Restaurants should have up-to-date equipment.

4. Employees don't always have to be willing to help customers. (-)

5. Employees should be polite.

6. When restaurants promise to do something by a certain time, they should do so.

7. Customers should be able to trust restaurant employees.

8. It is unrealistic to expect restaurants to have their customers' best interests at heart. (-)

9. Physical facilities should be appealing.

10. Employees should get adequate support from the restaurant to do their jobs well.

11. It is not realistic for customers to expect prompt service from restaurant employees. (-)

12. Restaurants should be dependable.

13. Customers should be able to feel safe in their transactions with restaurants.

14. Restaurant employees should be well-dressed and appear neat.

15. Restaurants should keep accurate records.

16. It is unrealistic to expect employees to know what the needs of their customers are. (-)

17. Restaurants should provide their services at a time they promise to do so.

18. Restaurants should not be expected to give customers individual attention. (-)

19. The appearance of the physical facilities should be consistent with the type of service provided.

20. When customers have problems, restaurant employees should be sympathetic and reassuring.

21. Restaurant employees cannot be expected to give customers personal attention. (-)

22. Restaurants should not be expected to have operating hours that are convenient to all of their customers. (-)

Part II - Perceptions

Directions: The following set of statements relate to your feelings about (restaurant's name). For each statement, please show the extent to which you believe (restaurant's name) has the feature described in the statement. Once again, circling a 7 means that you strongly agree that (restaurant's name) has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers—all we are interested in is a number that best shows your perceptions about (restaurant's name).

1. Employees of ____ do not know what your needs are. (-)
2. You do not receive prompt service from ____ employees. (-)
3. ____ physical facilities are appealing.
4. Employees of ____ are very polite.
5. You feel safe in your transactions with ____ employees.
6. ____ does not have operating hours that are convenient to all of its customers. (-)
7. ____ has up-to-date equipment.
8. ____ does not give you individual attention. (-)
9. Employees get adequate support from ____ to do their jobs well.
10. You can trust employees of ____.
11. ____ does not have your best interests at heart. (-)
12. ____ employees are well dressed and appear neat.
13. Employees of ____ do not give you personal attention. (-)
14. The appearance of physical facilities of ____ is consistent with the type of service provided.
15. Employees of ____ are too busy to respond to your requests promptly. (-)
16. ____ is dependable.
17. ____ does not tell customers exactly when services will be performed. (-)
18. Employees of ____ are not always willing to help customers. (-)
19. When ____ promises to do something by a certain time, it does so.
20. When you have a problem, ____ is sympathetic and reassuring.
21. ____ keeps its records accurately.
22. ____ provides its services at the time it promises to do so.
23. ____ quality of service is quite high.
24. I would recommend ____ to my friends for this type of service.
25. I will use ____ service over others in the future.

Note. [a] A seven-point scale ranging from "Strongly Agree" (7) to "Strongly Disagree" (1), with no verbal labels for the intermediate scale point (i.e., 2 through 6) accompanied each statement; [b] Ratings on these statements were reversed-scored prior to data analysis.

B.4. Final Customer Survey Instrument

Appendix B.4 displays the preliminary design of the customer survey. Part A consists of the customer background questions, and Part B looks at measuring the customer's quality perceptions through the use of the SERVQUAL instrument.

Part A: Customer Background

1. What is your age? _____
2. What are your top 3 favourite restaurants (in order of most favourite to least favourite)?
   1. _____
   2. _____
   3. _____
3. When dinning at a restaurant which of the following would you consider as being unforgivable: poor service or poor food? _____
4. Briefly explain your answer. _____
   _____

Part B: SERVQUAL

Expectations

Definition of expectation: A strong belief that something will happen or be the case.

Instructions:

This survey deals with your opinions of the services every restaurant should have.

- Please show the extent to which you think restaurants **(in general)** *should* possess the features described by each statement.
- Do this by rating each statement on a scale of 1 to 7.
- Circle 7 if you *strongly agree* that restaurants should possess a feature
- Circle 1 if you *strongly disagree* that restaurants should possess a feature
- Circle the numbers from 2 to 6 if your feelings are not strong

*NOTE: There are no right or wrong answers. All I am interested in is a number that best shows your **expectations** about **restaurant services (in general)**.*

xxxxxxxxxxxxxxxxx Please turn over to begin with the survey xxxxxxxxxxxxxxxxxxxxxxxx

EXPECTATIONS							
QUESTIONS	**Strongly agree**						**Strongly disagree**
1. Restaurants should have up-to-date equipment.	7	6	5	4	3	2	1
2. Physical facilities should be appealing.	7	6	5	4	3	2	1
3. Restaurant employees should be well dressed and appear neat.	7	6	5	4	3	2	1
4. The appearance of the physical facilities should be consistent with the type of service provided.	7	6	5	4	3	2	1
5. Restaurants shouldn't be expected to tell customers exactly when services would be performed.	7	6	5	4	3	2	1
6. When restaurants promise to do something by a certain time, they should do so	7	6	5	4	3	2	1
7. Restaurants should be dependable	7	6	5	4	3	2	1
8. Restaurants should keep accurate records.	7	6	5	4	3	2	1
9. Restaurants should not be expected to have operating hours that are convenient to all of their customers.	7	6	5	4	3	2	1
10. Restaurants should provide their services at a time they promise to do so.	7	6	5	4	3	2	1
11. It is okay if the restaurant is too busy to respond to customer requests promptly.	7	6	5	4	3	2	1
12. Employees don't always have to be willing to help customers.	7	6	5	4	3	2	1
13. It is not realistic for customers to expect prompt service from restaurant employees.	7	6	5	4	3	2	1
14. Customers should be able to trust restaurant employees.	7	6	5	4	3	2	1
15. Customers should be able to feel safe in their transactions with restaurants.	7	6	5	4	3	2	1
16. It is unrealistic to expect employees to know what the needs of their customers are.	7	6	5	4	3	2	1
17. Employees should be polite.	7	6	5	4	3	2	1
18. It is unrealistic to expect restaurants to have their customers' best interests at heart.	7	6	5	4	3	2	1
19. Employees should get adequate support from the restaurant to do their jobs well.	7	6	5	4	3	2	1
20. Restaurants should not be expected to give customers individual attention.	7	6	5	4	3	2	1
21. When customers have problems, restaurant employees should be sympathetic and reassuring.	7	6	5	4	3	2	1
22. Restaurant *employees* cannot be expected to give customers personal attention.	7	6	5	4	3	2	1

Perceptions

Definition of perception: The way in which something is regarded, understood, or interpreted.

Instructions:

The following set of statements relate to your feelings about **this** restaurant's services.

- Please show the extent to which you think this restaurant **possesses** the features described by each statement.
- Do this by rating each statement on a scale of 1 to 7.
- Circle 7 if you *strongly agree* that the restaurant possesses a feature
- Circle 1 if you *strongly disagree* that restaurant possesses a feature
- Circle the numbers from 2 to 6 if your feelings are not strong

*NOTE: There are no right or wrong answers. All I am interested in is a number that best shows your **perceptions** about **this** restaurant's services.*

xxxxxxxxxxxxxxxxx Please turn over to begin with the survey xxxxxxxxxxxxxxxxxxxxxxx

PERCEPTIONS							
QUESTIONS	**Strongly agree**						**Strongly disagree**
1. The restaurant's physical facilities are appealing.	7	6	5	4	3	2	1
2. The restaurant has up-to-date equipment.	7	6	5	4	3	2	1
3. The restaurant's employees are well dressed and appear neat.	7	6	5	4	3	2	1
4. The appearance of the restaurant's physical facilities is consistent with the type of service provided	7	6	5	4	3	2	1
5. The restaurant does not have operating hours that are convenient to all of its customers.	7	6	5	4	3	2	1
6. Employees get adequate support from the restaurant to do their jobs well.	7	6	5	4	3	2	1
7. The restaurant does not tell customers exactly when services will be performed	7	6	5	4	3	2	1
8. When the restaurant promises to do something by a certain time, it does so.	7	6	5	4	3	2	1
9. The restaurant provides its services at the time it promises to do so.	7	6	5	4	3	2	1
10. You do not receive prompt service from the restaurant's employees.	7	6	5	4	3	2	1
11. The restaurant's employees are too busy to respond to your requests promptly	7	6	5	4	3	2	1
12. The restaurant's employees are not always willing to help customers	7	6	5	4	3	2	1
13. When you have a problem, the restaurant is sympathetic and reassuring.	7	6	5	4	3	2	1
14. The restaurant's employees know what your needs are.	7	6	5	4	3	2	1
15. You feel safe in your transactions with the restaurant's employees	7	6	5	4	3	2	1
16. You can trust the restaurant's employees	7	6	5	4	3	2	1
17. The restaurant is dependable	7	6	5	4	3	2	1
18. The restaurant keeps its records accurately.	7	6	5	4	3	2	1
19. The restaurant's employees of are very polite.	7	6	5	4	3	2	1
20. The restaurant does not give you individual attention.	7	6	5	4	3	2	1
21. The restaurant does not have your best interests at heart	7	6	5	4	3	2	1
22. The restaurant's employees do not give you personal attention	7	6	5	4	3	2	1
Additional Questions							
23. The restaurant's quality of service is quite high.	7	6	5	4	3	2	1
24. I would recommend the restaurant to my friends for this type of service quality	7	6	5	4	3	2	1
25. I will choose this restaurant's service over others in the future.	7	6	5	4	3	2	1

B.5. Ethics Application Forms

This appendix comprises of all the necessary ethics clearance documents namely the participant information sheet (PIS), Respondent consent form, permission letter, and the Ethics Clearance Certificate.

B.5.1 PIS for the TQM interviewee

Dear Potential Participant,

My name is Anndroniki Raciti. I am an Industrial Engineer from the University of the Witwatersrand currently enrolled as a postgraduate master's student. In order to achieve my master's degree I am conducting research in the restaurant industry. My research involves looking at service quality in restaurants as experienced by the customer. I wish to explore the differences and similarities between restaurants' operations in an attempt to establish the practices that result in increased customer satisfaction in terms of service quality. Little research has been done on the topic and I feel I could contribute to the success of restaurants in South Africa.

I am kindly inviting you to participate in this study. You have been selected for the study due to your direct daily involvement in the running's of this restaurant and its quality management practices.

The study, should you wish to become involved, will comprise of a 20-30 minute one-on-one interview. You will have the option of deciding whether or not you would like the interview to be tape-recorded. If you are uncomfortable with the interview questions you are entitled to refuse to answer or even withdraw from the study. Your responses will be recorded on a password-protected laptop and viewed by only my eyes and my supervisor's eyes. As this research is a dissertation, it will be available for view on the Internet and accessible to the public.

The raw data obtained throughout the study will not be shared with the establishment's management; this ensures that your responses are kept private from your fellow employees and employers.

Participation in the study is completely voluntary. Should you not wish to participate, you will not be discriminated against. Regretfully, I cannot provide you with payment for your contribution to the study. Please contact me with any questions about the study and I will gladly answer them. *NOTE: This study is independent from restaurant management, and is purely for the research purposes of the researcher.*

Regards,

Anndroniki Raciti, researcher
Industrial Engineer
Cell: 072 341 6081

B.5.2 PIS for the Customer Survey

Dear Potential Participant,

My name is Anndroniki Raciti. I am an Industrial Engineer from the University of the Witwatersrand currently enrolled as a postgraduate master's student. In order to achieve my master's degree I am conducting research in the restaurant industry. My research involves looking at service quality in restaurants as experienced by the customer. I wish to explore the differences and similarities between restaurants in an attempt to establish the practices that result in increased customer satisfaction in terms of service quality. Little research has been done on the topic and I feel I could contribute to the success of restaurants in South Africa.

I am kindly inviting you to participate in this study. You have been selected for this study because you are a customer in this restaurant, and therefore have valid insight into the service quality of the establishment.

The study comprises of a 7-minute survey that you may answer privately. I guarantee total anonymity and confidentiality, as your name will not be recorded. Participation in the study is

completely voluntary and you will not be discriminated against should you wish not to participate.

Regretfully, I cannot provide you with payment for your contribution to the study. If you are uncomfortable with the questions you are entitled to refuse to answer them or even withdraw from the study. Your responses will be recorded on a password-protected laptop and viewed only by my eyes and my supervisor's eyes. As this research is a dissertation, it will be available for view on the Internet and accessible to the public.

Please contact me with any questions about the study and I will gladly answer them.

NOTE: This study is independent from restaurant management, and is purely for the research purposes of the researcher. The raw data obtained throughout the study will be for the researcher and supervisor's eyes only.

Regards,

Anndroniki Raciti, researcher
Industrial Engineer
Cell: 072 341 6081

B.5.3 Consent form

Staff Consent Form

I,_____, the undersigned have read and understood the purpose of the study as well as my involvement in the research that forms part of Anndroniki Raciti's master's dissertation. I am aware that I will be participating in a study concerning differing operational practices and their effect on service quality in the restaurant industry. I am mindful that the study comprises of a one-on-one interview with the researcher (Anndroniki Raciti). I am aware of the fact that my identity will remain anonymous, and should I feel uncomfortable with the questions posed to me I am allowed to refuse to answer them or even withdraw completely from the study. I also understand that I will not be paid to participate in the study, as participation is completely voluntary. I recognise that the information I provide during the interview will be present in the dissertation that will be available for view on the Internet and the Wits archives.

Please tick the box of the appropriate statement below regarding the use of a tape-recorder.

☐ I **do not consent** to the use of a tape-recorder during the one-on-one interview with the researcher.

☐ I **consent** to the use of a tape-recorder during the one-on-one interview with the researcher.

_____

Signature of participant

_____

Date

_____

Anndroniki Raciti, researcher
Industrial Engineer
Cell: 072 341 6081

B.5.4. Ethics Clearance Certificate

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Raciti

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER H14/07/13**
PROJECT TITLE	Is there a relationship between TQM practices and services quality in the restaurant industry?
INVESTIGATOR(S)	Ms A Raciti
SCHOOL/DEPARTMENT	Mechanical, Industrial & Aeronautical Engineering
DATE CONSIDERED	18 July 2014
DECISION OF THE COMMITTEE	Approved Unconditionally
EXPIRY DATE	21/08/2016

DATE 22/08/2014 **CHAIRPERSON** (Professor T Milani)

cc: Supervisor : Ms T Hattingh

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10000, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Signature

02 / 09 / 2014
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

B.6. Pilot Study Write-Up

Introduction

A pilot study was conducted at a restaurant located in Sandton City. The study was carried out over a period of two and a half weeks. During which 20 customers and 4 staff members participated in the research. The customers were to complete a SERVQUAL survey (comprising of 44 SERVQUAL questions and an additional 4 background questions), in order to ascertain the restaurant's level of service quality as interpreted by the customer. The staff members on the other hand were requested to participate in a one-on-one interview with the researcher, which focused on identifying the presence of total quality management (TQM) practices in the restaurant. An observation table was also used during the study to record the current state of the restaurant. The pilot study was necessary to assess the following: the time taken to conduct the research; to identify any adverse events that might occur; and lastly to establish the applicability of the research approach and research instruments in the restaurant's working environment. Due to the nature of the research, and the fact that studies are not common in the restaurant industry in South Africa, it was necessary to "test" the study on a smaller sample so as to improve on the design of the study before continuing with the full-scale research project encompassing a larger sample size.

Objectives

The objectives for the pilot study were the following:

1. To investigate the viability of the TQM interview, with the restaurant staff members, by assessing:
    a. The participation rate of the employees
    b. The average time taken to conduct the interviews
    c. The responses obtained during the interviews
2. To establish the practicality of the SERVQUAL instrument as a means of measuring the customer's interpretation of service quality in the restaurant by examining:
    a. The customer participation rate
    b. Customer feedback
    c. The survey responses
3. To establish whether or not the observation table is a comprehensive means of recording the current state of the restaurant by investigating if the points to note (on the observations table) reveal the existence of TQM practices in the restaurant.

Apparatus

The apparatus for the pilot study comprises of three research instruments designed solely for the purpose of the study. They are:

- The TQM questionnaire (See Appendix I) that takes the form of a semi-structured interview[1], which is attached to the participant information sheet (PIS), and the employee consent form.
- The SERVQUAL survey and customer background questions (See Appendix II), which are also attached to a PIS.
- The observations table (See Appendix III)

Methodology

The method in which the research was conducted is discussed in the three sections that follow. The sections deal with each component of the research separately.

TQM Interview

The one-on-one TQM interview with the restaurant staff followed the procedure described below.

1. Approach the employee.
2. Provide the employee with a copy of the interview attached to the PIS so that the subject may be better informed of the research and what it entails.
3. Re-approach the employee and ask them if they would like to participate in the interview.
    a. If not, repeat steps 1 to 3.
    b. If yes, then move to step 4.
4. Discuss a time to conduct the survey that best suites the employee.
5. To conduct the interview, go to a private or semi-private location.
6. Explain, once more, the purpose of the interview to the employee.
7. Provide the subject with the consent form.
    a. Should the employee consent to the interview, continue to step 8.
    b. Should the employee change his/her mind and not consent to the interview return to step 1.
8. Ensure before proceeding with the interview that the employee has signed the consent form.
9. Check if the employee has consented to being voice recorded, if yes proceed to step 10. If not, proceed to step 11.
10. Turn on the voice recorder.
11. Start the timer (to have record of the time taken to complete the interview), and begin with the interview.

[1] A semi-structured interview means that questions could be added or removed from the line of questioning based on the response obtained from the subject, and the researcher's intuition.

12. Manually record the subject's responses in the appropriate column of the TQM questionnaire table available for view in Appendix I.
13. Once all the questions have been answered stop the timer and the voice recorder, if it is in use.
14. Thank the employee for his/her participation.
15. Capture the employee's responses on the password-protected laptop and return to step 1.

SERVQUAL survey

The procedure for the customer-based research, in the form of the SERVQUAL survey, required alterations after it was evident that the initial approach (Approach A) was ineffective. Approach B is the preferred method of obtaining customer responses, and both methodologies are presented below.

Approach A- Executed by the researcher

1. The researcher approaches the customer (either seated at a table or waiting in the queue for a table).
2. Introduce his/herself and explains the purpose and intention of the research.
3. Provide the customer with the survey and a pen, which they may complete in their own time should they wish to do so.
4. Walk away.
5. Collect the survey after the customer leaves.
    a. If the survey is complete, capture the results.
    b. If the survey is incomplete or partially completed discard the survey (an incomplete SERVQUAL survey is unusable)
6. Record the number of surveys handed out, the number of complete surveys, partially completed surveys, and the number of incomplete surveys.

Approach B – Executed by the waiter on behalf of the researcher

1. Receive the customer SERVQUAL surveys as well as a sufficient number of pens from the researcher.
2. When customers arrive requesting to be seated, seat the customers and place the appropriate number of surveys and pens on the table.
3. Kindly request that the customers complete the survey, and walk away.
4. Upon collecting the bill from the table (i.e. after the customers have left), collect the surveys from the table.

5. Return the completed and incomplete surveys to the researcher, and begin at step 1 until 50 surveys have been handed out.

Observation table

The methodology for using the observations table is less meticulous than the approach to the TQM interviews and the SERVQUAL survey, because the table itself is self-explanatory. One simply needs to observe the day-to-day operations of the restaurant and attempt to comment on the 4 listed observations presented in the observation table (See Appendix III). The observations that need to be commented on are:

1. Is there a presence of the 7 tools of quality in the workplace?
2. Is there a presence of work teams or groups?
3. What happens when there is a customer complaint or issue?
4. How does staff interact with the customers.

Observations

Through the use of the observations table numerous comments could be made about the current state of operations at The restaurant. The observations table allows for quality management practices, specifically relating to TQM, to be easily identified. The observations table is used as a secondary and unbiased means of detecting TQM practices at the restaurant. During the two and a half weeks at The restaurant the following observations were made:

1. Is there a presence of the 7 tools of quality in the workplace?
    a. No physical evidence of the use of the 7 tools of quality by the employees. There are no checklists available, in plain sight, for the employees to refer to for a list of their duties.
    b. Checklists are communicated verbally between employees both at management level e.g. “Have you ordered flour for tomorrow?” , and at waiting staff level e.g. “Do you need me to clean trays, or have you done them already?”
    c. There are company policy documents on the walls in the kitchen, but they are small and longwinded.
    d. No graphical representation of information at all. No graphs of data or information on sales or number of complaints. Majority of the staff seem to be disconnected from the operations of the company.

2. Is there a presence of work teams or groups?
    a. There are morning meetings between the waiters. This roughly resembles a work group. It is supervised by the headwaiter and only waiters are present. The meeting does not appear to be of tremendous value. Various elements such as good service

and cleanliness are discussed briefly, but the meeting appears to be a formality more than a vital meeting. There are neither discussions amongst the waiters about the matters at hand, nor any attempt to reflect on problems encountered by staff.

b. No observed instance of problem solving by employees.
c. There seems to be a distinct split between the kitchen staff and the waiters. The kitchen and waiters seem to work independent of each other.

3. What happens when there is a customer complaint or issue?
    a. It was observed that employees at The restaurant follow the procedure displayed in Figure 1 when there is a customer complaint. A flow chart was used for ease of interpretation.

4. Staff's interaction with customers
    a. Waiters appear not to be extremely attentive to customers already seated. This changes from employee to employee, but overall customers often have to wait a while before a waiter tends to their needs.
    b. Managers are often rather busy with their own duties (in the kitchen or elsewhere) and don't always approach customers to check on them. Some customers are checked on, others are not. There is inconsistency here.
    c. Waiters seldom help customers belonging to tables other than their 'own'.

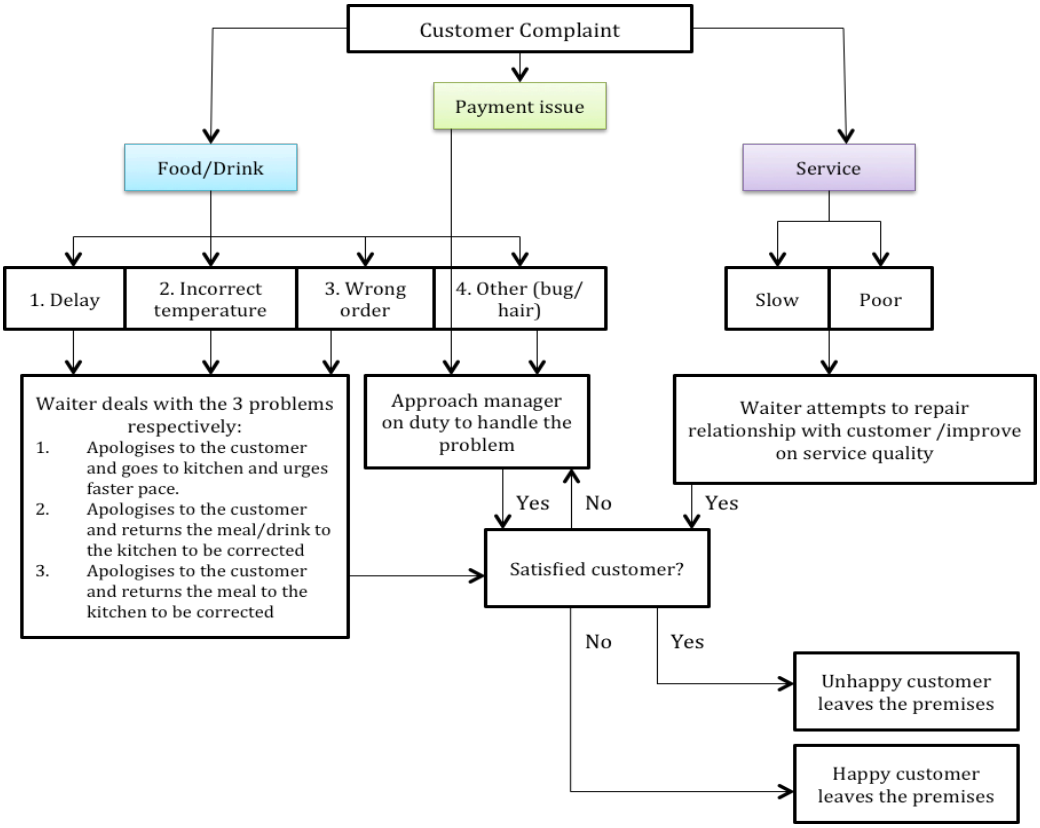


Figure 11: Flow chart of the process undertaken by The restaurant staff when there is a customer complaint.

Results

The results displayed aim to assist in assessing the feasibility of using the designed research instruments for the remainder of the research.

TQM Questionnaire

To assess the viability of the designed TQM questionnaire, as a means of identifying quality management practices within the restaurant, three aspects were examined. The first aspect is the participation rates of the employees see Figure 2. The second is the average time taken to conduct the interviews, the results of which are available in **Table 1**. The third and final feature is the staff interviews responses a simplification of the comments made during the interview are displayed in Table 2. Appendix IV shows the detailed interview transcripts along with a more detailed version of the researcher's comments.

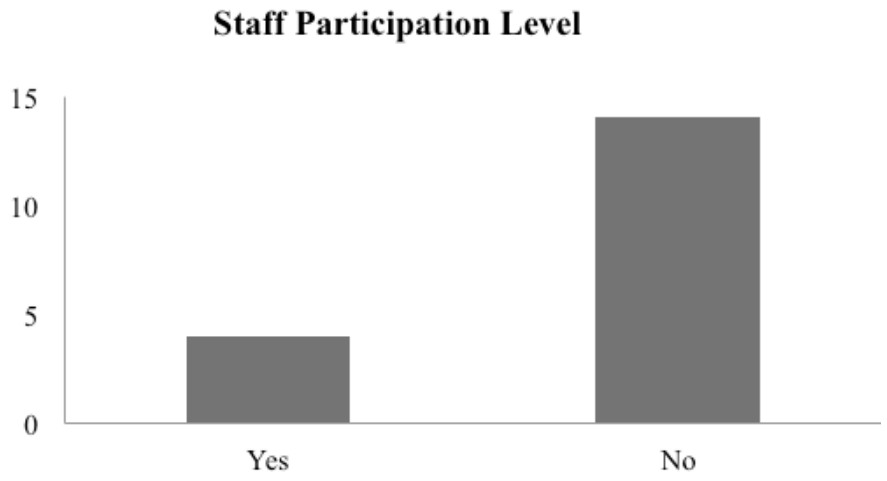


Figure 12: A depiction of the number of The restaurant staff members that did and did not participate in the study

Table 11: Durations of the four TQM interviews with the The restaurant staff

Interview Number	Duration of interview (minutes)
1	24
2	21
3	19
4	26
Average	**22,5**

Table 12: A simplified presentation of the comments made about the responses obtained during the TQM interviews

QUESTION	COMMENTS
Preliminary Questions	
1. Consenting to being voice recorded? (Yes/No)	The respondens understood the question it thus resulted in the desired response.
2. A.What is your job description? B. What do you do here?	Ambiguous.
3. How long have you worked here?	The respondens understood the question it thus resulted in the desired response.
4. What are your qualifications? Have you had any training? If so, please elaborate.	The question needs to be rephrased it is not specific enough with regards to the restaurant industry.
TQM Questions	
I. What is the aim/goal of the business?	The respondens understood the question it thus resulted in the desired response.
II. How important are the needs of the customer on a scale of 1-5?	Need to follow up with a further, "why?"
III. What do you understand about customer expectations?	Respondents failed to understand the question. It requires re-phrasing.
IV. What do you understand about customer requirements?	Respondents failed to understand the question. It requires re-phrasing.
V. Which is more important?	Failed to receive response because of difficulty experienced with previous 2 questions.
VI. Do you implement changes in the business? If so, how often? What kinds of changes?	This question could be re-worded in order to achieve a better response, as the respondents were slightly confused by the question.
VII. Why do you implement these changes?	Fine.
VIII. Do you ever have customer complaints?	Fine, but it is not specific enough. A yes/no answer does not provide enough information about the complaints i.e how often they occur.
IX. What do they complain about?	Fine.
X. What is your role in the business?	Repondents interpret this the same way they did question 2. Change the wording.
XI. What are your duties?	Repeat of question 2.
XII. What is quality? What do you understand about quality? Definition?	Fine.
XIII. What is the role of those around you (your fellow employees) ?	Some respondents had difficulty with this question, perhaps it should be re-worded.Expand on this aspect. Team work is mentioned by repondents, add this to the questionnaire.
XIV. What do you do in the event of a complaint? (How do you go about dealing with it?)	Tendancy to be vague. Need to ensure follow up questions about detail, specifically from the respondents point of view.
XV. How do you prevent these issues?	Fine.
XVI. Do you have staff meetings?	Fine.
XVII. How often?	Fine.
XVIII. What is discussed?	Fine, but ensure that respondent explains in detail.
XIX. Do you do anything with the information that is discussed in meetings?	Fine.
XX. Do you compare yourselves with other restaurants? Why? With whom?	Fine.
XXI. What do you compare?	Fine.

Customer Survey

50 of the designed customer surveys were distributed to The restaurant customers over a series of 5 days; Figure 3 represents the number of survey responses.

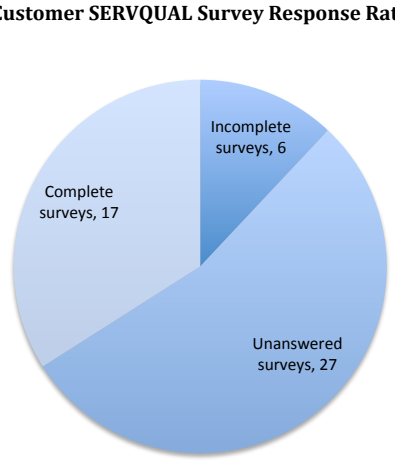


Figure 13: A graphical representation of the customers' survey response rate.

Discussion

Three research instruments were designed in an effort to investigate the research question "Is there a relationship between TQM practices and service quality in the restaurant industry?". Due to the fact that the instruments were designed purely for the study at hand they required testing, thus prompting the need for the pilot study conducted at The restaurant. The discussion presented below examines each instrument individually using the results obtained from the pilot study, displayed in Section 1.6, in conjunction with numerous observations made during the time spent at The restaurant.

The observations table

The design of the table allowed for numerous observations to be made during the pilot study. Reflecting continuously upon the observation topics listed on the table allowed for focus to be kept on the relevant topics, ensuring that an increase in scope was avoided. The four points on the observations table also act as a means of a secondary frame of reference against which details uncovered by the TQM interview could be compared. The observations table centres on the restaurant, namely its operations and its staff. Section 1.5 displays the observations made during the pilot study. It can be seen that during observations at The restaurant the 3rd observation point, pertaining to the presence of work teams, expands to include details about the observed staff meetings at the restaurant. An observation point specific to staff meetings was not included on the initial observations table. Without this topic listed on the table, it is likely that as the research progresses recording the details of the meetings may be overlooked. It may

be worthwhile to amend the observations table with an additional observation point that is specific to staff meetings.

The TQM questionnaire

Figure 2 displays poor staff participation rates. It indicates that a meagre 20% of The restaurant's staff member's chose to participate in the study. It is believed, after discussions with the employees, that the poor participation rates could be attributed to two factors.

The first is apprehension. The staff members were afraid that their responses would be shared with management, and that they would get in trouble for talking about issues within the business. This factor was unforeseen. It was believed that the inclusion of the consent form, which ensured full employee confidentiality, would ensure employee participation. This, however, when put in practice was not the case. The employees did not seem to see the significance of the consent form, and were dubious about divulging information to the researcher.

Secondly, the employees felt that they would be wasting time talking to the researcher, and for them as in all businesses time is money. The waiters felt that in the 20-30 minutes required to conduct the interview they would miss out on acquiring a new customer. This factor is understandable considering that their livelihood is dependant upon being available and seating a new customer or meeting the needs of a current customer. The same could be said for the kitchen staff and managers; they simply did not have the time to partake in an interview that, in their eyes, served no purpose to them.

The average time taken to conduct the TQM interview is 22.5minutes and it is represented in Table 1. Although the sample size is small, consisting of only 4 interviews, the durations ranged from 19min – 26min. It can thus be seen that interview times are relatively stable and do not vary greatly, and are in accordance with the time frame stated on the PIS attached to the TQM questionnaire. It is evident employees can almost be guaranteed that the interview that will last no longer than 30 minutes. The 20-30 minute window also allows for additional, and unforeseen, follow up questions to take place without extending over the given time frame, allowing employees to elaborate on certain aspects if need be. Although 20-30 minutes is seen as a significant amount of time in the eyes of the employees it is not feasible to reduce the number of questions (in an attempt to reduce the duration of the interview), as they are all mandatory in the investigation of the presence of TQM practices in the restaurant.

While conducting the TQM interview with the employees, numerous comments were made. Due to the fact that the interviews were conducted as semi-structured interviews, questions were

added and removed from the questionnaire in response to unforeseen respondent answers. It also allowed for modifications to be made to questions that the employees failed to understand or answer. Table 2 portrays the interview questions along with the key comments (made by the researcher) related to both the questions themselves and the employee's responses to the questions. The comments in Table 2 indicate that the employees answered 12 of the 25 questions with ease and that the desired responses were obtained for the 12 questions. The remaining questions, however, were problematic in that the employees either failed to understand the question or failed to provide the response desired by the researcher. In order to ensure that the responses provided by the employee are useful to the researcher it is evident that questions, 2, 4, II, III, IV, V, VI, VIII, X, XI, XIII, XIV, and XVIII require modifications before the questionnaire can be used for the remainder of the research. Refining the 13 aforementioned questions should result in improved interview flow, which could potentially decrease the length of the interview.

The customer survey

Figure 3 indicates that of the 50 surveys that were circulated within the restaurant only 23 (46%) were answered, 6 of which were incomplete. 17 of the 23 answered surveys were completed by customers thus indicating that 34% of the approached customers were willing to participate fully in the study.

The 6 partially completed surveys indicated that customers were willing to answer the 4 customer background questions, but when it came to the SERVQUAL portion of the survey they stopped answering the questions. The reason for this could be attributed to the fact that the background questions are simple, interesting, and short thus, taking up very little of the customer's time. The remainder of the survey, however, consists of 47 seemingly repetitive (in the eyes of the customer) and time-consuming questions. The length of the SERVQUAL instrument is of detriment to the study, as the sheer volume of questions is uninviting and somewhat daunting to the customers. It is believed that a higher survey completion rate could be achieved by reducing the length of the survey. The SERVQUAL instrument requires that both the "perceptions" and "expectations" components of the survey be completed so that the "quality" calculations can be made. Without which, the instrument is deemed useless. In the 6 incomplete surveys, indicated by Figure 3, it is conceivable to say that customers failed to reach the end of the study either because they ran out of time or that they simply lost interest due to the repetitiveness of the questions.

During the course of the pilot study, numerous reflections were made regarding the methodology associated with the customer survey component of the study. A successful methodology was paramount to ensuring optimal participation rates. The initial approach taken to distribute the surveys to the customers failed dismally. The method required that the

researcher make contact with the customers and directly distribute the survey (see Section 1.4.2). The customers did not receive the researcher well. There was distinct apprehension from the customers, as the researcher was seen as a foreign entity in the restaurant environment. It was discovered that customers were at the establishment to take a break from work and did not want to be disturbed. Thus, this approach resulted in 0% customer participation.

The second, and more successful, approach towards this portion of the study required that the restaurants waiters provided the customers with the survey. The customers seemed to be more willing to participate in the study when their waiter supplied them with the survey. This could be credited to the fact that the customers felt more comfortable being approached by a staff member in uniform as apposed to the foreign researcher. This method gave rise to the 27 responses displayed in Figure 3.

Limitations and Conclusions

The following limitations were identified during the course of the pilot study and an attempt will be made to eliminate these factors from the remainder of the research.

- The researcher's close relationship with the restaurant's management may have been cause for the poor staff participation rate. The staff feared to partake in the TQM interview, as they believed that the researcher would reveal their responses to management.
- The length and tediousness of the 22-item SERVQUAL instrument. It is believed that the length of the survey resulted in the lack of customer responses.
- The fact that the TQM interview with the staff requires that employees take 30 minutes out of their day to conduct the interview. The problem here is that because the place of research is a restaurant, the employees work all the time non-stop from breakfast through to dinner for example when kitchen staff are not busy with a current order they are busy with 'prep' work. In the case of the waiters, since they earn money based on a tipping system, they are desperate to compete for tables and less interested in participating in the study that is of no monetary value to them.

In conclusion the following can be said about the pilot study:

- The viability of the TQM questionnaire was examined by looking at the participation rate of the employees; the average time taken to conduct the interviews; and the responses obtained during the interviews. After a discussion (see Section 1.7) of the above-mentioned aspects was conducted, a new and improved TQM questionnaire was designed which is believed to be a more viable questionnaire. It is available for view in Appendix V.
- The practicality of the SERVQUAL instrument as a means of measuring the customer's interpretation of service quality in the restaurant was discussed in the preceding section.

The section examined the customer participation rate, the customer feedback, and the survey responses. The result of which is the design of a shortened and more practical survey. Part A of the new survey is available for view in Appendix VI, along with a rationalisation for the inclusion of the questions. The design and justification of the questions for Part B of the survey i.e. the SERVQUAL portion is available in Appendix VII.

- It was established that the observation table was in fact a comprehensive means of recording the current state of the restaurant. It was identified through Section 1.7, however, that a minor addition was required to the observations table to ensure increased comprehensiveness, see Appendix VIII for the improved observations table design.
- The pilot study allowed for the research instruments and research design to be tested, which allowed for problems to be identified prior to moving on with the bulk of the study.

Pilot Study Appendices

Appendix I

Appendix I displays an image of the table used to record the employee responses during the TQM interviews.

PRELIMINARY QUESTIONS		
QUESTION	**RESPONSE**	**NOTES**
1. Consenting to being voice recorded? (Yes/No)		
2. A.What is your job description? B. What do you do here?		
3. How long have you worked here?		
4. What are your qualifications? Have you had any training? If so, please elaborate.		
TQM QUESTIONS		
QUESTION	RESPONSE	**NOTES**
I. What is the aim/goal of the business?		
II. How important are the needs of the customer on a scale of 1-5?		
QUESTION	RESPONSE	**NOTES**
III. What do you understand about customer expectations?		
IV. What do you understand about customer requirements?		
V. Which is more important?		
VI. Do you implement changes in the business? If so, how often? What kinds of changes?		
VII. Why do you implement these changes?		
QUESTION	RESPONSE	**NOTES**
VIII. Do you ever have customer complaints?		
IX. What do they complain about?		
X. What is your role in the business?		
XI. What are your duties?		
XII. What is quality? What do you understand about quality? Definition?		
XIII. What is the role of those around you (your fellow employees) ?		

QUESTION	RESPONSE	NOTES
XIV. What do you do in the event of a complaint? (How do you go about dealing with it?)		
XV. How do you prevent these issues?		
XVI. Do you have staff meetings?		
XVII. How often?		
XVIII. What is discussed?		
XIX. Do you do anything with the information that is discussed in meetings?		
XX. Do you compare yourselves with other restaurants? Why? With whom?		
XXI. What do you compare?		

Appendix II

Appendix II displays the survey that was handed to the customers, it comprises of 2 parts. Part A consists of the customer background questions, and Part B covers the SERVQUAL instrument. The instrument consists of 44 questions, 22 or which pertain to the customers' expectations of the restaurant in terms of service quality and the other 22 questions pertain to the customers' perceptions of The restaurant in terms of service quality.

Part A: Customer Background

1. What is your age? _____
2. What are your top 3 favourite restaurants (in order of most favourite to least favourite)?
   1. _____
   2. _____
   3. _____
3. When dinning at a restaurant which of the following would you consider as being unforgivable: poor service or poor food? _____
4. Briefly explain your answer. _____

   _____

Part B: SERVQUAL

Expectations

Definition of expectation: A strong belief that something will happen or be the case.

Instructions:

This survey deals with your opinions of the services every restaurant should have.

- Please show the extent to which you think restaurants **(in general)** *should* possess the features described by each statement.
- Do this by rating each statement on a scale of 1 to 7.
- Circle 7 if you *strongly agree* that restaurants should possess a feature
- Circle 1 if you *strongly disagree* that restaurants should possess a feature
- Circle the numbers from 2 to 6 if your feelings are not strong

NOTE: There are no right or wrong answers. All I am interested in is a number that best shows your ***expectations*** *about* ***restaurant services (in general)****.*

xxxxxxxxxxxxxxxxx Please turn over to begin with the survey xxxxxxxxxxxxxxxxxxxxxxx

EXPECTATIONS							
QUESTIONS	**Strongly agree**						**Strongly disagree**
1. Restaurants should have up-to-date equipment.	7	6	5	4	3	2	1
2. Physical facilities should be appealing.	7	6	5	4	3	2	1
3. Restaurant employees should be well dressed and appear neat.	7	6	5	4	3	2	1
4. The appearance of the physical facilities should be consistent with the type of service provided.	7	6	5	4	3	2	1
5. Restaurants shouldn't be expected to tell customers exactly when services would be performed.	7	6	5	4	3	2	1
6. When restaurants promise to do something by a certain time, they should do so	7	6	5	4	3	2	1
7. Restaurants should be dependable	7	6	5	4	3	2	1
8. Restaurants should keep accurate records.	7	6	5	4	3	2	1
9. Restaurants should not be expected to have operating hours that are convenient to all of their customers.	7	6	5	4	3	2	1
10. Restaurants should provide their services at a time they promise to do so.	7	6	5	4	3	2	1
11. It is okay if the restaurant is too busy to respond to customer requests promptly.	7	6	5	4	3	2	1
12. Employees don't always have to be willing to help customers.	7	6	5	4	3	2	1
13. It is not realistic for customers to expect prompt service from restaurant employees.	7	6	5	4	3	2	1
14. Customers should be able to trust restaurant employees.	7	6	5	4	3	2	1
15. Customers should be able to feel safe in their transactions with restaurants.	7	6	5	4	3	2	1
16. It is unrealistic to expect employees to know what the needs of their customers are.	7	6	5	4	3	2	1
17. Employees should be polite.	7	6	5	4	3	2	1
18. It is unrealistic to expect restaurants to have their customers' best interests at heart.	7	6	5	4	3	2	1
19. Employees should get adequate support from the restaurant to do their jobs well.	7	6	5	4	3	2	1
20. Restaurants should not be expected to give customers individual attention.	7	6	5	4	3	2	1
21. When customers have problems, restaurant employees should be sympathetic and reassuring.	7	6	5	4	3	2	1
22. Restaurant *employees* cannot be expected to give customers personal attention.	7	6	5	4	3	2	1

Perceptions

Definition of perception: The way in which something is regarded, understood, or interpreted.

Instructions:

The following set of statements relate to your feelings about **this** restaurant's services.

- Please show the extent to which you think this restaurant **possesses** the features described by each statement.
- Do this by rating each statement on a scale of 1 to 7.
- Circle 7 if you *strongly agree* that the restaurant possesses a feature
- Circle 1 if you *strongly disagree* that restaurant possesses a feature
- Circle the numbers from 2 to 6 if your feelings are not strong

*NOTE: There are no right or wrong answers. All I am interested in is a number that best shows your **perceptions** about **this** restaurant's services.*

xxxxxxxxxxxxxxxxx Please turn over to begin with the survey xxxxxxxxxxxxxxxxxxxxxxx

PERCEPTIONS							
QUESTIONS	**Strongly agree**						**Strongly disagree**
1. The restaurant's physical facilities are appealing.	7	6	5	4	3	2	1
2. The restaurant has up-to-date equipment.	7	6	5	4	3	2	1
3. The restaurant's employees are well dressed and appear neat.	7	6	5	4	3	2	1
4. The appearance of the restaurant's physical facilities is consistent with the type of service provided	7	6	5	4	3	2	1
5. The restaurant does not have operating hours that are convenient to all of its customers.	7	6	5	4	3	2	1
6. Employees get adequate support from the restaurant to do their jobs well.	7	6	5	4	3	2	1
7. The restaurant does not tell customers exactly when services will be performed	7	6	5	4	3	2	1
8. When the restaurant promises to do something by a certain time, it does so.	7	6	5	4	3	2	1
9. The restaurant provides its services at the time it promises to do so.	7	6	5	4	3	2	1
10. You do not receive prompt service from the restaurant's employees.	7	6	5	4	3	2	1
11. The restaurant's employees are too busy to respond to your requests promptly	7	6	5	4	3	2	1
12. The restaurant's employees are not always willing to help customers	7	6	5	4	3	2	1
13. When you have a problem, the restaurant is sympathetic and reassuring.	7	6	5	4	3	2	1
14. The restaurant's employees know what your needs are.	7	6	5	4	3	2	1
15. You feel safe in your transactions with the restaurant's employees	7	6	5	4	3	2	1
16. You can trust the restaurant's employees	7	6	5	4	3	2	1
17. The restaurant is dependable	7	6	5	4	3	2	1
18. The restaurant keeps its records accurately.	7	6	5	4	3	2	1
19. The restaurant's employees of are very polite.	7	6	5	4	3	2	1
20. The restaurant does not give you individual attention.	7	6	5	4	3	2	1
21. The restaurant does not have your best interests at heart	7	6	5	4	3	2	1
22. The restaurant's employees do not give you personal attention	7	6	5	4	3	2	1
Additional Questions							
23. The restaurant's quality of service is quite high.	7	6	5	4	3	2	1
24. I would recommend the restaurant to my friends for this type of service quality	7	6	5	4	3	2	1
25. I will choose this restaurant's service over others in the future.	7	6	5	4	3	2	1

Appendix III

Below is an image of the observation table used during the study at The restaurant to record the current state of procedures at the restaurant.

OBSERVATIONS	COMMENTS
Evidence of the presence of the 7 tools of quality	
Presence of work teams or groups	
Observe the procedures undertaken when a complaint or issue occurs. Who do they go to? Is there a hierarchy?	
Staff's interactions with the customers	

Appendix IV

Interview 1		
QUESTION	**ANSWER**	**COMMENTS**
Preliminary	***Preliminary***	***Preliminary***
Consenting to being voice recorded?	No	
A. What is your job description? B. What do you do here?	A. A waitress, but likes to call herself a service ambassador. B. Welcome customers, make them feel at home, and provide them with good service.	
How long have you worked here?	3 months	
What are your qualifications? Have you had any training? If so, please elaborate.	I have been in the industry for 4 years. Worked at Primi Piatti and Mugg and Bean when I was a student.	Perhaps it is necessary to be more specific and ask, "Have you had any training in the restaurant industry?" and "Have you been trained by *this* restaurant?"
Customer Focus	***Customer Focus***	***Customer Focus***
What is the aim/goal of the business?	To grow, to be better than the ordinary. To improve.	
How important are the needs of the customer on a scale of 1-5?	4.5. The customer is very important, but the 0.5 is missing because there are times when the needs cannot be met.	
What do customers expect when coming to Walnut?	Customers expect warm welcome. And good service because they are spending their own hard earned money.	During the interview this question was altered, as the respondent did not understand it. It was previously, "What do you understand about customer expectations?"
What do your customers want from the restaurant?	Quality	During the interview this question was altered, as the respondent did not understand it. It was previously, "What do you understand about customer requirements?"

Continuous Improvement	***Continuous Improvement***	***Continuous Improvement***
Do you implement changes in the business? If so, how often? What kinds of changes?	Yes. We change cutlery and crockery as per the customer's requests sometimes.	The respondent did not really understand the question. Perhaps it should be rephrased to, "Do you make changes to the way you do things in the restaurant (in terms of operational aspects? Or in terms of aesthetics?)
Why do you implement these changes?	To allow the shop to grow, by satisfying the customers.	
Do you ever have customer complaints	Yes.	
What do they complain about	Delays in food. Cold food. Weird things in the food, like hair or bug.	
What do you do in the event of a complaint? (How do you go about dealing with it?)	I approach management, whoever is present really. Although, normally we approach the floor manager.	
How do you prevent these issues?	Management normally sort the issues out. If its my fault I try not do it again	
Do you compare yourselves with other restaurants? Why? With whom	Yes, I do on a personal level. I compare us to Primi Piatti	
What do you compare?	I compare in terms of teamwork and the lack of teamwork at Walnut Grove. Primi used to have rules that waiters were to follow. We have poor teamwork. People are selfish. No one wants to help each other and share. Every man for himself. There are no incentives here	Interesting that topic of teamwork has come up. It was not mentioned in the employee empowerment questions.

Employee Empowerment	***Employee Empowerment***	***Employee Empowerment***
What is your role in the business?	Make sure I can make all customers regulars	
What is the role of those around you (your fellow employees)?	To be team players.	The employee has touched on an element of TQM, employee empowerment. It requires the combined effort of all employees working together to create a successful business.
Do you have staff meetings?	Yes	
How often?	Every morning	
What is discussed?	We motivate each other, and talk about yesterday's issues.	Staff meetings were observed and there was no presence of team motivation. Employees seemed completely disinterested. Only the waiters were present in this meeting. There was minor mention of the importance of quality.

7 Tools of Quality	***7 Tools of Quality***	***7 Tools of Quality***
What is quality? What do you understand about quality? Definition?	Quality is about ensuring a customer's satisfaction.	
Do you do anything with the information that is discussed in meetings?	Take it and use it. Not everyone uses it though.	

Interview 2		
QUESTION	**ANSWER**	**COMMENTS**
Preliminary	***Preliminary***	***Preliminary***
Consenting to being voice recorded?	Yes	
A. What is your job description? B. What do you do here?	A. Head waiter. B. I look after customers. I look after waiters. I can give orders to certain members of staff, some people listen others don't. I find that I have to be strict in order for people to listen to me.	
How long have you worked here?	11 years.	
What are your qualifications? Have you had any training? If so, please elaborate.	I studied some computers a long time ago. But otherwise that's it.	It is evident that in both cases no training the staff have had no training specific to the restaurant industry. **Or maybe the question needs rephrasing.**
Customer Focus	***Customer Focus***	***Customer Focus***
What is the aim/goal of the business?	• To give the best service • Give good food, because it is just as important. • To have friendly waiters. • And welcome customers.	
How important are the needs of the customer on a scale of 1-5?	5. The customer is very important. We must always try our best to please the customers. Must make an attempt to understand the customer and what they want , we must never say no to them.	
What do customers expect when coming to Walnut?	A friendly waiter. A nice welcome. Good service and food. To be treated well and made to feel special	
What do your customers want from the restaurant?	The waiter must visit the customer regularly and check up on them. They also want the managers to check up on them.	

Continuous Improvement	***Continuous Improvement***	***Continuous Improvement***
Do you implement changes in the business? If so, how often? What kinds of changes?	Not really. We have changed the menu, but other than that we have been doing the same thing for the 11 years that I've been here.	No evidence of continuous improvement efforts. PDCA?
Why do you implement these changes?	When things aren't going well we make changes. If items aren't popular on the menu, we remove them. We also make changes to the presentation of dishes often. Especially if they aren't looking nice, or just to keep things new and different. Mostly, we make changes to the food section, and the kitchen.	
Do you ever have customer complaints?	Yes.	
What do they complain about?	• Food taking long- slow to come out the kitchen. • Drinks taking long, sometimes the drinks arrive after the meal has arrived! • Mistake in the orders. For example, when they want an egg hard and it comes soft.	
What do you do in the event of a complaint? (How do you go about dealing with it?)	• If it's a simple problem, then I will sort it out, but if it is a more difficult problem then we approach the managers (any manager/whoever is on duty that day) to sort out the problem.	
What do you mean by a difficult problem? What can the manager do that you cannot?	The manager would follow up and go to the customer see what's wrong and offer discount or complimentary meal. We are worried that people will give a bad review on the internet. Because at the end of the day that severely effects the restaurant.	It is evident that waiters do not have the authority to carry out more important duties. Perhaps this speaks to the level of employee empowerment.

How do you prevent these issues?	It is difficult in this industry because you cannot always please everyone. What's good for one customer is not for the other, and therefore you can never stop complaints.	
Do you compare yourselves with other restaurants? Why? With whom?	Not really. Other restaurants are franchised and so it is difficult to compare with them.	Benchmarking doesn't appear to be part of the company's policy.
What do you compare?	N/A	

Employee Empowerment	***Employee Empowerment***	***Employee Empowerment***
What is your role in the business?	To look after customers, and keep them happy. This is therefore good for business. We as waiters are the face of the shop.	This may be repetitive. Perhaps rephrase to "how important do you see yourself in the running's of the business" or "what is your purpose in this restaurant?" or something like "Do you see yourself as replacable?"
What is the role of those around you (your fellow employees)?	To focus on the customer. If you give good service then you will get good money. (i.e. get good tip if service is good)	ISSUE WITH THIS QUESTION
Do you have staff meetings?	Yes.	
How often?	Everyday. The meetings are normally for the front of house staff. I am not sure what back of house does.	Again a divide is evident between kitchen and waiting staff.
What is discussed?	We talk about service, and how to give good service. We talk about keeping the shop clean.	It is very ambiguous. It is easy to say, "we discuss how to give good service" but what does this mean? What does it entail? What IS good service?
Would you say there is presence of teamwork here?	Yes, but not really.	
Why?	People are greedy, and therefore want all the tables to themselves	Team culture is not present.

7 Tools of Quality	*7 Tools of Quality*	*7 Tools of Quality*
What is quality? What do you understand about quality? Definition?	People expect good quality when they pay for an item. If they are paying for the food they want it to be good quality.	No clear idea of what quality is.
Do you do anything with the information that is discussed in meetings?	Not everyone follows through with what was discussed in the meetings.	

Interview 3		
QUESTION	**ANSWER**	**COMMENTS**
Preliminary	***Preliminary***	***Preliminary***
Consenting to being voice recorded?	Yes	
A. What is your job description? B. What do you do here?	A. Owner of Walnut Grove B. Supervise managers, ensure systems and procedures are followed.	
How long have you worked here?	11 years	
What are your qualifications? Have you had any training? If so, please elaborate.	I have an advertising degree. No training in the restaurant industry. Self taught.	
Customer Focus	***Customer Focus***	***Customer Focus***
What is the aim/goal of the business?	To provide quality food and professional service to the customers of our business.	
How important are the needs of the customer on a scale of 1-5? *Why?*	a. 5 b. *Customers dictate how well we do. So, satisfying their needs is of paramount importance.*	Part B of the question was never posed to the previous 2 interviews. It is important to ask this question to ascertain whether employees truly value the customer.
What do customers expect when coming to Walnut?	They expect good service, fast service, good quality food and overall pleasant dining experience.	RE-PHRASE
What do your customers want from the restaurant?	They want what they expect. It is the same thing. They have high demands.	RE-PHRASE

Continuous Improvement	*Continuous Improvement*	*Continuous Improvement*
Do you implement changes in the business? If so, how often? What kinds of changes?	Yes. Monthly. Stock taking procedures, marketing techniques	It appears that only managers are truly aware of the larger changes to the business (in terms of operations)
Why do you implement these changes?	They are ways to improve profit and streamline the business.	
Do you ever have customer complaints?	Yes	
What do they complain about?	Two main aspects. 1. Service based issues (slow service, poor service) 2. Mistake in the food or drink order.	
What do you do in the event of a complaint? (How do you go about dealing with it?)	There are systems in place to ensure that the manager handles a complaint. We try to fix the problem as soon as possible so that the customer leaves happy. I am briefed weekly about issues and complaints and I respond personally to complaints on social media sites.	
What do you mean by a difficult problem? What can the manager do that you cannot?	N/A	
How do you prevent these issues?	We take immediate action. Log complaints into the complaints book. When the complaint it logged, we put procedures in place to ensure that it doesn't happen again. If the error is serious and our fault, disciplinary action is taken.	Still quite vague about the procedures that they put in place. Need to ensure follow up question takes place.
Do you compare yourselves with other restaurants? Why? With whom?	• To keep an eye on the competition. Make sure that we are relative to the market and other	

Employee Empowerment	***Employee Empowerment***	***Employee Empowerment***
What is your role in the business?	To supervise and motivate managers and create long lasting procedures and to ensure longevity of the business.	Just the managers?
What is the role of those around you (your fellow employees)?	To follow the systems and procedures put before them. Ensure to give the customers good service and food.	
Do you have staff meetings?	Yes	
How often?	Daily waiter meetings. Weekly manager meetings. Monthly shop meetings (supervised by me, the owner)	
What is discussed in the managers meeting?	We go over the positives that have happened, in an effort to improve morale. We go over any complaints that have been logged. Come up with an action plan to deal with the complaints. We end by announcing the staff member of the month.	
Would you say there is presence of teamwork here?	Yes, more than in the past. We have been attempting to improve teamwork in order to improve service	
Why was there previously such little teamwork?	Lack of management skill, lack of motivation by management	
What do you do to improve /ensure teamwork.	Everybody takes plates to the kitchen. Everybody takes plates to the table. Everybody cleans tables. In the kitchen the staff has been cross-trained. They can do other kitchen tasks, hence instils teamwork.	These are all activities that staff must do, but the overall company culture of teamwork is not evident.

7 Tools of Quality	*7 Tools of Quality*	*7 Tools of Quality*
What is quality? What do you understand about quality? Definition?	It is offering something, whether it is a product or service, to the customers, which exceeds their expectations	But how do they know what the customers expect?
Do you do anything with the information that is discussed in meetings?	Yes. We take minutes, a register is signed and we use the information in our action plans.	There is no evidence of graphically representing information in an attempt to improve on it. Do they know how many complaints happen a day?

Interview 4		
QUESTION	**ANSWER**	**COMMENTS**
Preliminary	***Preliminary***	***Preliminary***
Consenting to being voice recorded?	No	
A. What is your job description? B. What do you do here?	A. I am the food and beverage manager at Walnut Grove. B. I do the following: • I handle the food costing's • I do the stock take • I supervise kitchen staff • I open in the mornings • I ensure the kitchen is clean • I order stock • I also handle the portion control • I often assist with prep for the next morning	
How long have you worked here?	10 months	
What are your qualifications? Have you had any training? If so, please elaborate.	I have a diploma in food and beverage management in the hospitality and service industry. I also am trained as a chef and I have 14 certificates from various courses that I have attended that apply to the restaurant industry.	
Customer Focus	***Customer Focus***	***Customer Focus***
What is the aim/goal of the business?	To please the customers, they must be happy. Keep the staff happy to ensure good performance. But I don't really think about this aspect, I focus mostly on the kitchen	
How important are the needs of the customer on a scale of 1-5?	5. The customer is very important. But maybe that's just the way I think.	
What do customers want from the restaurant?	We don't always know what the customer wants. But they	Why don't they ask them?

Continuous Improvement	*Continuous Improvement*	*Continuous Improvement*
Do you implement changes in the business? If so, how often? What kinds of changes?	Yes, we do new things. We change the menu once in a while. We plate things differently in the kitchen. We often improve on recipes where we can, some items on the menu often needs tweaking. We also have started doing specials for the week.	
Why do you implement these changes?	We do it when we are not happy with certain things, and we want to make them better. We are doing the specials in order to lure in more customers.	
Do you ever have customer complaints?	Yes	
What do they complain about?	On busy days they complain about food taking long. Waiters ring up the wrong order, and they thus receive the wrong order. Food is cold, because it was waiting in the kitchen for waiter to collect it.	Interesting, because the waiters mentioned that kitchen makes the errors…
What do you do in the event of a complaint? (How do you go about dealing with it?)	In terms of food, the waiter takes the food off the table. The kitchen then examines the dish to establish what is wrong. After they rectify the issue, they proceed to investigate the basis of the issue – e.g. who was in the wrong, the waiter or the kitchen? Or was it a difficult customer?	
What do you mean by a difficult problem? What can the manager do that you cannot?	N/A	

How do you prevent these issues?	In terms of food: • We need to be on top of our game • Know what the customer wants • Train our staff so that problems do not happen • Push staff members to ensure that prep is done, so that they can work fast and serve customers quickly.
Do you compare yourselves with other restaurants? Why? With whom?	I do. I like to see how they do stuff compared to us, to that we can improve our ways. Mugg and bean, and cappuccinos.
What do you compare?	I like to compare the things we do, in terms of how the waiters work and how the food orders work. I like to see who is better at certain aspects.
Would you say there is presence of teamwork here?	Yes and no.
Why?	There isn't much communication between managers, and so we can't work as a team. The waiters don't want to help each other, in terms of helping one another with duties. E.g. they don't help each other to take food to the customers from the kitchen. The kitchen on the other hand has more teamwork. We know each other better. But, I believe we can improve on teamwork as a whole in Walnut Grove

Employee Empowerment	*Employee Empowerment*	*Employee Empowerment*
What is your purpose in the business?	To make sure that the kitchen runs smoothly. Ensure there is always enough stock for demand.	
What is the role of those around you (your fellow employees)?	Everyone has a role, and it's to satisfy the needs of the clients, and work together as a team. My role is in the kitchen, which is the engine of the place.	
Do you have staff meetings?	Yes, but not as often as we should. It's difficult to get everyone together.	This could be overcome if time is made especially for the meeting. But perhaps it is not seen as a valuable aspect.
How often?	I would say big meetings are scarce. We do have shorter "hand over" meetings at shift changes.	
What is discussed?	At the shift change meeting (which isn't really a meeting, more of an exchange of words between managers) we discuss: • Duties that still need to be done in the kitchen i.e. prep that was incomplete or orders that need to be made. • If there were major customer complaints, they are mentioned.	Verbal exchange of duties could result in numerous errors.

7 Tools of Quality	*7 Tools of Quality*	*7 Tools of Quality*
What is quality? What do you understand about quality? Definition?	In terms of the kitchen, good quality means having good quality ingredients, because that will in the end satisfy the customer. E.g. A-grade meat would be the best product for the customers.	
Do you do anything with the information that is discussed in meetings?		

Appendix V

Final revised and edited version of the TQM Questionnaire. All the underlined questions are new or rephrased questions.

Preliminary Questions

1. Do you consent to being voice recorded? (Yes/No)
2. What is your job title?
3. What do you do here?
4. How long have you worked here?

TQM Questions

5. What is the aim/goal of the business?
6. How important are the needs of the customer on a scale of 1-5?
    a) Why?
7. Do you know what customers want/expect from the restaurant?
    a) *How* do you know what they want?
    b) *What* do they want/expect from the restaurant?
8. Do you implement changes in the business? (In terms of operations).
    a) If so, how often?
    b) What kinds of changes?
    c) Why do you implement these changes?
9. Do you ever have customer complaints?
    a) What do they complain about?
    b) Do you know the number of customer complaints per day/week/month?
10. What, in your opinion, is your purpose in the operation of the business?
11. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?
12. What is quality? How would you define it?
13. Have you had any training in the restaurant industry?
    a) Have you been trained by this restaurant?
14. What do **you** do in the event of a complaint? (How do you go about dealing with it?) (*Ensure there is specificity to the answer*)
    a) Are there problems that you cannot deal with?
    b) Why? What can the manager do that you cannot?
15. How do you prevent these complaints for occurring? *(Ensure that the answer is specific)*
16. Do you have staff meetings?
    a) How often?
    b) What is discussed?
    c) What do you do with the information that is discussed in meetings?
17. Do you compare yourselves with other restaurants?
    a) Why?
    b) With whom?
    c) What do you compare?
18. Would you say there is presence of teamwork here?
    a) Why?

Appendix VI

Following table indicates the new demographic-type questions for the customer survey along with a rationalisation for the inclusion of the new questions.

Table 13: New Demographic-Type Survey Questions

Question	Rationalisation
1. How often do you visit this restaurant? • First time? • More than once? •	To gauge the customer's expectation scores. Perhaps expectations are dependent on the number of times a customer visits the establishment.
2. If you have visited more than once please select the reason. • I enjoy the food • I enjoy the service • I enjoy both food & service • Other •	Understanding the customer better. Can potentially compare the customer's responses to SERVQUAL questions based on their reason for revisiting the establishment.
3. If you selected other, please elaborate.	Perhaps there is another reason, other than food and service that drives customers to visit a restaurant.
4. What are your top 3 favourite restaurants?	This places the customer in a context with regards to their expectations of restaurants, based on the restaurants they tend to favour.
5. Please rate the factors mentioned below on a scale of 1 to 5 (1=low influence and 5= high influence) a) When dining at a restaurant, what level of influence does the ***quality of service*** have on whether or not you will revisit the restaurant? b) When dining at a restaurant, what level of influence does the ***quality of the food*** have on whether or not you will revisit the restaurant?	This is to establish the aspect of the restaurant experience that is deemed most important to the customers. Is it food or is it service. This also places the customer in context when analysing their responses to part B of the study.
6. What is your age?	Allows for conclusions to be made about different generation's tolerances towards poor service quality, or if age makes no difference at all.

Appendix VII

Displayed below is the selection process performed in order to establish the questions to be kept for the new 'SERVQUAL-type' survey instrument.

EXPECTATIONS	PERCEPTIONS	REASON FOR SELECTION
Tangibles	**Tangibles**	**Tangibles**
1. Restaurants should have up-to-date equipment.	2. The restaurant has up-to-date equipment.	
2. Physical facilities should be appealing.	1. The restaurant's physical facilities are appealing.	
3. Restaurant employees should be well dressed and appear neat.	3. The restaurant's employees are well dressed and appear neat.	
4. The appearance of the physical facilities should be consistent with the type of service provided.	4. The appearance of the restaurant's physical facilities is consistent with the type of service provided.	This question links the tangible aspect of the restaurant to the service provided by the restaurant. It links to TQM in terms of customer focus and continuous improvement.
Reliability	**Reliability**	**Reliability**
6. When restaurants promise to do something by a certain time, they should do so	8. When the restaurant promises to do something by a certain time, it does so.	
7. Restaurants should be dependable	17. The restaurant is dependable	
8. Restaurants should keep accurate records.	18. The restaurant keeps its records accurately.	
10. Restaurants should provide their services at a time they promise to do so.	9. The restaurant provides its services at the time it promises to do so.	
21. When customers have problems, restaurant employees should be sympathetic and reassuring.	13. When you have a problem, the restaurant is sympathetic and reassuring.	This links to the customer focus aspect of TQM.
Responsiveness	**Responsiveness**	**Responsiveness**
11. It is okay if the restaurant is too busy to respond to customer requests promptly. (-)	11. The restaurant's employees are too busy to respond to your requests promptly (-)	
12. Employees don't always have to be willing to help customers. (-)	12. The restaurant's employees are not always willing to help customers (-)	
13. It is not realistic for customers to expect prompt service from restaurant employees. (-)	10. You do not receive prompt service from the restaurant's employees. (-)	This question deals with quality of service and it links to TQM in terms of employee empowerment and customer focus.
5. Restaurants shouldn't be expected to tell customers exactly when services would be performed. (-)	7. The restaurant does not tell customers exactly when services will be performed (-)	
Assurance	**Assurance**	**Assurance**
14. Customers should be able to trust restaurant employees.	16. You can trust the restaurant's employees	
15. Customers should be able to feel safe in their transactions with restaurants.	15. You feel safe in your transactions with the restaurant's employees	
17. Employees should be polite.	19. The restaurant's employees of are very polite.	This links to the customer focus aspect of TQM.
19. Employees should get adequate support from the restaurant to do their jobs well.	6. Employees get adequate support from the restaurant to do their jobs well.	
Empathy	**Empathy**	**Empathy**
9. Restaurants should not be expected to have operating hours that are convenient to all of their customers. (-)	5. The restaurant does not have operating hours that are convenient to all of its customers. (-)	
16. It is unrealistic to expect employees to know what the needs of their customers are. (-)	14. The restaurant's employees don't know what your needs are. (-)	This links to the customer focus aspect of TQM.
18. It is unrealistic to expect restaurants to have their customers' best interests at heart. (-)	21. The restaurant does not have your best interests at heart (-)	
20. Restaurants should not be expected to give customers individual attention. (-)	20. The restaurant does not give you individual attention. (-)	
22. Restaurant *employees* cannot be expected to give customers personal attention.(-)	22. The restaurant's employees do not give you personal attention (-)	
	Additional Questions	Additional Questions
	23. The restaurant's quality of service is quite high.	A link to TQM's focus on continuous improvement.
	24. I would recommend the restaurant to my friends for this type of service quality	A link to TQM's focus on continuous improvement.
	25. I will choose this restaurant's service over others in the future.	A link to TQM's focus on continuous improvement.

Appendix VIII

A representation of the new observations table to be used for the remainder of the research.

OBSERVATIONS	COMMENTS
Evidence of the presence of the 7 tools of quality	
Presence of work teams or groups. **Staff meetings?**	Staff meetings - ADDITIONAL ENTRY
Observe the procedures undertaken when a complaint or issue occurs. Who do they go to? Is there a hierarchy?	
Staff's interactions with the customers	

B.7. Final TQM Interview

Final revised and edited version of the TQM Questionnaire. All the underlined questions are new or rephrased questions.

Preliminary Questions

1. Do you consent to being voice recorded? (Yes/No)
2. What is your job title?
3. What do you do here?
4. How long have you worked here?

TQM Questions

5. What is the aim/goal of the business?
6. How important are the needs of the customer on a scale of 1-5?
    a) Why?
7. Do you know what customers want/expect from the restaurant?
    a) *How* do you know what they want?
    b) *What* do they want/expect from the restaurant?
8. Do you implement changes in the business? (In terms of operations).
    a) If so, how often?
    b) What kinds of changes?
    c) Why do you implement these changes?
9. Do you ever have customer complaints?
    a) What do they complain about?
    b) Do you know the number of customer complaints per day/week/month?
10. What, in your opinion, is your purpose in the operation of the business?
11. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?
12. What is quality? How would you define it?
13. Have you had any training in the restaurant industry?
    a) Have you been trained by this restaurant?
14. What do **you** do in the event of a complaint? (How do you go about dealing with it?) (*Ensure there is specificity to the answer*)
    a) Are there problems that you cannot deal with?
    b) Why? What can the manager do that you cannot?
15. How do you prevent these complaints for occurring? *(Ensure that the answer is specific)*
16. Do you have staff meetings?
    a) How often?
    b) What is discussed?
    c) What do you do with the information that is discussed in meetings?
17. Do you compare yourselves with other restaurants?
    a) Why?
    b) With whom?
    c) What do you compare?
18. Would you say there is presence of teamwork here?
    a) Why?

B.8. Final Customer Survey

PLEASE ANSWER THE FOLLOWING *9 QUESTIONS*

*If you would like to **find out more** about the research please turn **to the last page**.*

---

1. How often do you visit this restaurant? (Please tick)
   - ☐ This is my first time here.
   - ☐ I have been here more than once.
2. If you ***have visited*** the restaurant ***more than once***, please tick the answer that best describes your reason for doing so.
   - ☐ I enjoy the service
   - ☐ I enjoy the food
   - ☐ I enjoy both the food AND the service
   - ☐ Other
3. If you selected "Other", please elaborate. _____
4. What are your top 3 favourite restaurants (in order of most favourite to least favourite)?
   1. _____
   2. _____
   3. _____
5. Please rate the factors mentioned below on a scale of 1 to 5 (1=low influence and 5= high influence)
   A. When dining at a restaurant, what level of influence does the ***quality of service*** have on whether or not you will revisit the restaurant? | 1 | 2 | 3 | 4 | 5 |
   B. When dining at a restaurant, what level of influence does the ***quality of the food*** have on whether or not you will revisit the restaurant? | 1 | 2 | 3 | 4 | 5 |
6. What is your age? _____
7. Please answer the following 5 questions based on your **expectations** of this restaurant **before** you arrived. (What did you have in mind of the service quality before you arrived here?) *Circle the most appropriate response.*

QUESTION	*Strongly Agree*	*Agree*	*Agree Somewhat*	*Neutral*	*Disagree Somewhat*	*Disagree*	*Strongly Disagree*
The appearance of the restaurant's physical facilities should be consistent with the type of service it provides.	7	6	5	4	3	2	1
When customers have problems, restaurant employees should be sympathetic and reassuring.	7	6	5	4	3	2	1
It is not realistic for customers to expect prompt service from restaurant employees.	7	6	5	4	3	2	1
Employees should be polite.	7	6	5	4	3	2	1
It is unrealistic to expect employees to know what the needs of their customers are.	7	6	5	4	3	2	1

1. Please answer the following 5 questions based on how you **perceived** the experience at **this** restaurant i.e. Answer the questions bearing in mind your current visit to this restaurant. *Circle the most appropriate response.*

QUESTION	*Strongly Agree*	*Agree*	*Agree Somewhat*	*Neutral*	*Disagree Somewhat*	*Disagree*	*Strongly Disagree*
The appearance of the restaurant's physical facilities is consistent with the type of service provided.	7	6	5	4	3	2	1
When you have a problem, the restaurant is sympathetic and reassuring.	7	6	5	4	3	2	1
You do not receive prompt service from the restaurant's employees.	7	6	5	4	3	2	1
The restaurant's employees are very polite.	7	6	5	4	3	2	1
The restaurant's employees don't know what your needs are.	7	6	5	4	3	2	1

2. Lastly, please answer the following 3 questions about **this** restaurant. *Circle the most appropriate response.*

QUESTION	*Strongly Agree*	*Agree*	*Agree Somewhat*	*Neutral*	*Disagree Somewhat*	*Disagree*	*Strongly Disagree*
The restaurant's quality of service is quite high.	7	6	5	4	3	2	1
I would recommend the restaurant to my friends for this type of service quality	7	6	5	4	3	2	1
I will choose this restaurant's service over others in the future.	7	6	5	4	3	2	1



If you have any concerns about my research feel free to contact my supervisor Mrs Teresa Hattingh (+27 11 717 7374)

B.9 Final Observations Table

Restaurant Name	
OBSERVATIONS	**COMMENTS**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)	
Presence of work teams or groups. Staff meeting?	
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?	
Staff's general interaction with the customers.	

B.10. Full study TQM Interview Tool

PRELIMINARY QUESTIONS	
QUESTION	**RESPONSE**
1. Do you consent to being voice recorded? (Yes/No)	
2. What is your job title?	
3. What do you do here?	
4. How long have you worked here?	
TQM QUESTIONS	
5. What is the aim/goal of the business??	
6. How important are the needs of the customer on a scale of 1-5?	
a) Why?	
7. Do you KNOW what customers want from the restaurant?	
a) HOW do you know what they want?	
b) What DO they expect from the restaurant?	
8. Do you implement changes in the business? (In terms of operations).	
a) If so, how often?	
b) What kinds of changes?	
c) Why do you implement these changes?	
9. Do you ever have customer complaints?	

a) What do they complain about?	
b) Do you know the number of customer complaints per day/week/month?	
10. What, in your opinion, is your purpose in the operation of the business?	
11. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	
12. What is quality? How would you define it?	
13. Have you had any training in the restaurant industry?	
a) Have you been trained by this restaurant?	
14. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	
a) Are there problems that you cannot deal with?	
b) Why? What can the manager do that you cannot?	
15. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	
16. Do you have staff meetings?	
a) How often?	

b) What is discussed?	
c) What do you do with the information that is discussed in meetings?	
17. Do you compare yourselves with other restaurants?	
a) Why?	
b) With whom?	
c) What do you compare?	
18. Would you say there is presence of teamwork here?	
a) Why?	If so, how do you ensure team work is achieved??

B.11. Full study TQM Interview Transcript for Employee 3 at Restaurant B.

TQM Staff Questionnaire

Restaurant B

Interview 3: Waiter

1. **Do you consent to being voice recorded? (Yes/No)**

   No

2. **What is your job title?**

   Waiter

3. **What do you do here?**

   - Welcome the guests
   - Seat them
   - Offer them drinks and food
   - Suggest dessert
   - I clear the tables and make sure the shop is clean
   - On weekends I answer the phone for take-away

4. **How long have you worked here?**

   5 years

TQM QUESTIONS

5. **What is the aim/goal of the business?**

   To keep the standard high. Maintain the regular customers and keep people coming back.

6. **How important are the needs of the customer on a scale of 1-5?**

   Very

7. **Why?**

   They are necessary for financial stability.

   They are basically our "boss", because they pay for the food and this allows us to make money too.

8. **Do you KNOW what customers want from the restaurant?**

   Yes.

9. **HOW do you know what they want?**

   When the customer sits down, we chat to them before we take their order. Find out a little more about them. We form a relationship, and then we can begin to suggest items we think they might want.

10. **What DO they expect from the restaurant?**

    Quality food and better service.

11. **Do you implement changes in the business? (In terms of operations).**

    Yes

12. **If so, how often?**

    Every 6 months or so.

13. **What kinds of changes?**

    We often change the menu. Most recently we have added "banting" items to the menu. And before that we added the "……" menu items. {The *name of the menu items has been removed to conceal the restaurant's identity*}

    We don't make any real operational changes. But we do often discuss ways of improving service; we talk about different ways of approaching the customer. What works, what doesn't.

14. **Why do you implement these changes?**

    We make changes to keep customers happy so that they don't get fed up of the same thing all the time. We have a lot of regulars here, so we make changes to keep them coming.

15. **Do you ever have customer complaints?**

    Yes.

16. **What do they complain about?**

    Some complain about the menu changes. They want the items they always used to eat and now the menu doesn't have them available anymore. Some complain about the new way in which the meals are plated. The regulars like the familiar, the things they are used to.

    NOTE: Regulars complain about changes, yet restaurant sill makes changes to keep customer happy?

17. **Do you know the number of customer complaints per day/week/month?**

    1 or 2 a week. We don't have many.

18. **What, in your opinion, is your purpose in the operation of the business?**

    I'm here to make a difference and keep us top class.

19. **What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?**

    To upsell.

    NOTE: The subject mentions that are incentives for waiters if they are able to sell sushi to customers.

20. **What is quality? How would you define it?**

Quality is the way you differentiate between 2 things. If one item is better than another. For example our sushi rice was better than other restaurant's sushi rice. This made more people interested in the item. Also presentation of food makes things good quality.

21. **Have you had any training in the restaurant industry?**

    Formal training at The Forum.

22. **Have you been trained by this restaurant?**

    Yes: If you are new you are put on the floor to learn how the restaurant operates. You go into the kitchen to see how all the food is made. We learn about service and the correct way to serve the customer and keep them happy.

23. **What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)**

    Firstly, I find out what the complaint is about. E.g. if the drink took too long.

    Then I investigate to find the reason for the problem. I inform the customer. And I apologise.

24. **Are there problems that you cannot deal with?**

    Yes. In terms of incorrect food orders or issues with the food.

25. **Why? What can the manager do that you cannot?**

    The manager has to balance the stocks, he has the ability to void items on the GAAP system I do not have that power.

26. **How do you prevent these complaints for occurring? (Ensure that the answer is specific)**

    If the complain was out fault, and we make a mistake, we have a meeting to discuss how to handle the issue. Then we deal with the issue.

27. **Do you have staff meetings?**

    Yes.

28. **How often?**

    Daily before the shift. In the morning, usually for the day shift. Night shift has a meeting at 3pm- we discuss issues or changes that need to be made.

29. **What is discussed?**

    That service is a priority. We talk about ways to maintain our standards. We talk about things we have noticed at other restaurants (e.g. at some restaurants, the meat dish comes with 2 sides) We talk about the ways we can suggest meals, by persuading the customers.

    Upselling our items.

30. **What do you do with the information that is discussed in meetings?**

    We implement it and observe how it works.

31. **Do you compare yourselves with other restaurants?**

Yes and no. I don't always do it myself, but the customers are always telling us that we are good!

32. Why?

I don't really compare because then we land up chasing the ways of other restaurants instead of focusing on our own ways.

33. With whom?

-

34. What do you compare?

-

35. Would you say there is presence of teamwork here?

Yes. You can't survive without teamwork.

36. Why?

The customer is everyone's responsibility. We have to keep them happy, to make sure they keep coming back and that way we can keep up our standard.

B.12. Observations Table for Restaurant A

Restaurant A	
OBSERVATIONS	**COMMENTS**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)	• No physical evidence of the use of the 7 tools of quality by the employees. There are no checklists available in plain sight for the employees to refer to for a list of their duties. • Checklists are communicated verbally between managers e.g. "Have you ordered flour for tomorrow?" , and between waiters e.g. "Do you need me to clean trays, or have you done them already?" • No graphical representation of information at all. • No graphs of data or information on sales or number of complaints. Majority of the staff seem to be disconnected from the operations of the company.
Presence of work teams or groups. Staff meeting?	There are morning meetings between the waiters. This roughly resembles a work group. • It must be noted that this meeting seemed to have occurred because of the researcher's inquiry into whether or not there was to be a meeting. • It is supervised by the headwaiter and only waiters are present. • There doesn't appear to be much input from the waiters and most of the talking is done by the headwaiter. • No clear evidence of discussions amongst the waiters about the matters at hand, nor any attempt to reflect on problems encountered by staff. There seems to be a split between management and waiters.
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?	Observed complaints: 1. A customer complained that there was no Greek salad available on the menu. The waiter could not do anything about the issue but approach the floor manager. The floor manager noted the complaint and addressed the customer, and offered to create a salad for them at the appropriate price. The customer then accepted this offer. The manager then had to approach to owner in order to come up with an appropriate item price. 2. A customer complained flagged a manager down to complain about the slow service, as they had been waiting a long time for both their food and drinks. The manager apologised on behalf of the waiter and offered to at the end of the meal provide the customers with a complimentary slice of cake and then personally went to the kitchen to inquire about the delays. In both cases it appears as though the managers and owners have the most authority, whereas the waiters have very little.
Staff's general interaction with the customers.	The staff's attitudes towards and interactions with the customers vary greatly from employee to employee. There are some waiters who appear to have a warmer approach to their customers, and there are others who seem disinterested. Some waiters are more attentive, while others are less attentive. Floor managers appear to be hands on at times. Although it seems that managers don't always approach customers to check on them. Some customers are checked on, others are not. There is inconsistency here.

B.13. Customer Survey Data for Restaurant C

Question 1,2 & 3										
	1: How often do you visit restaurant?		**2: Why?**				**3: Reason for Other**		
Customer	*First Time*	*More than Once*	*Service*	*Food*	*Food and service*	*Other*	*Conven-ience*	*Environ-ment*	*Busin-ess*
1		1			1				
2		1		1		1	1		
3		1			1				
4		1			1				
5		1			1				
6		1			1				
7		1			1				
8	1								
9		1			1				
10		1			1				
11		1			1				
12		1			1				
13		1			1				
14		1		1					
15		1		1					
16		1			1				
17		1			1				
18		1			1				
19		1		1					
20		1			1				
21		1			1	1		1	
22		1			1				
23		1			1				
24		1			1				
25		1				1			1
26	1								
27	1								
28	1								
29		1		1					
30		1			1				
31		1		1					
32		1			1				
33		1			1				
34		1			1				
35		1			1				
36		1			1				
37		1			1				
38		1			1				
39	1								
40		1		1					
41		1			1				
42		1			1				
43		1			1				
44		1			1				
45		1			1				
46		1			1				
47		1		1					
48		1			1				
49		1			1				
50	1								
TOTAL	6	44	0	8	35	3	1	1	1

	Question 4		
	4: What are your favourite restaurants?		
Customer	*1st*	*2nd*	*3rd*
1	Piatto	Adega	Promise Grill
2	Tasha's	Princi	Europa
3	Europa	Rich Grill	The Steakery
4	Europa	Turn 'n Tender	Rich Grill
6	Lua	Smile Café	Aroma
7	Pigale	Mugg & Bean	Fishmonger
8	Ocean Basket	News Café	NA
10	Mugg & Bean	Il' Camino	NA
11	Spur	Mugg & Bean	Ducks Henley
12	**Restaurant C**	Browsers Newmarket	Olives & Plates
13	**Restaurant C**	Turn 'n Tender	Tasha's
14	Adega	Allora	Piatto
15	Piatto	Rich Grill	Allora
16	Piatto	**Restaurant C**	Café Rossini
17	Nandos	**Restaurant C**	Café Figo
18	Piatto	**Restaurant C**	Café Rossini
19	Grillhouse	Tasha's	Plaka
20	Fournos	**Restaurant C**	Mugg & Bean
21	**Restaurant C**	Turn 'n Tender	Piatto
22	Mugg & Bean	**Restaurant C**	Europa
23	**Restaurant C**	NA	NA
24	Pigale	Possums Bistro	Botegga
25	NA	NA	NA
26	NA	NA	NA
27	Primi Piatti	Mugg & Bean	NA
28	Ocean Basket	Villa Varai	NA
29	Lua	Ocean Basket	Café Rossini
30	Tasha's	Vovo Telo	**Restaurant C**
31	Back o' the Moon	Meat Co	The Baron
32	**Restaurant C**	Mugg & Bean	Mantovanis
33	**Restaurant C**	Life Grand Café	Olives & Plates
35	Pigale	Mythos	Calistos
36	**Restaurant C**	Lua	Café Rossini
37	Ghazil	Wang Thai	Tasha's
38	The Grill House	Tasha's	Craft
39	Ocean Basket	Mantovanis	Primi Piatti
40	DW 11 13	Bottega	NA
41	Turn 'n Tender	Mad Platter	Fire & Ice
42	**Restaurant C**	Tin Cup	Madeira Bar
43	Turn 'n Tender	Ocean Basket	**Restaurant C**
44	Ocean Basket	Simply Asia	Sakura
45	Mythos	Nice	Service Station
46	Promise Grill	Ocean Basket	Piatto
47	Turn 'n Tender	**Restaurant C**	Piatto
48	**Restaurant C**	Plaka	
49	Grillhouse	Parea	Bennigans
50	Ocean Basket	Andiccios	Turn 'n Tender

	Question 5									
	5 a: What level of influence does the **quality of service** have on revisiting restaurant?					5 b: What level of influence doe the **quality of food** on revisiting restaurant?				
Customer	*Low 1*	*2*	*3*	*4*	*High 5*	*Low 1*	*2*	*3*	*4*	*High 5*
1					1					1
2				1						1
3					1					1
4				1						1
5				1						1
6					1					1
7					1					1
8				1						1
9					1					1
10				1						1
11				1					1	
12					1					1
13					1					1
14					1				1	
15					1					1
16					1					1
17				1					1	
18				1					1	
19					1					1
20				1						1
21					1					1
22					1					1
23					1					1
24				1					1	
25				1						1
26					1					1
27					1					1
28					1					1
29					1					1
30					1				1	
31				1						1
32					1					1
33					1					1
34					1					1
35			1							1
36					1					1
37					1					1
38				1						1
39					1					1
40				1						1
41				1						1
42					1					1
43					1					1
44				1						1
45					1					1
46					1					1
47				1						1
48					1					1
49				1						1
50				1						1
TOTAL			1	19	30				6	44

	Question 6						
	Age group						
Customer	18-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	75 older years old
1		1					
2	1						
3				1			
4							1
5			1				
6		1					
7				1			
8			1				
9					1		
10							1
11				1			
12					1		
13			1				
14	1						
15					1		
16					1		
17			1				
18					1		
19	1						
20						1	
21			1				
22						1	
23							1
24					1		
25					1		
26				1			
27			1				
28					1		
29			1				
30			1				
31			1				
32						1	
33			1				
34						1	
35	1						
36					1		
37				1			
38					1		
39						1	
40			1				
41	1						
42					1		
43							1
44			1				
45					1		
46			1				
47					1		
48					1		
49				1			
50				1			
TOTAL	5	13	7	15	6	2	2

		Question 7 & 8													
		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION
CUSTOMER	Tangibles	The appearance of the physical facilities should be consistent with the type of service provided.	The appearance of the restaurant's physical facilities is consistent with the type of service provided	Reliability	When customers have problems, restaurant employees should be sympathetic and reassuring.	When you have a problem, the restaurant is sympathetic and reassuring.	Responsiveness	It is not realistic for customers to expect prompt service from restaurant employees. (- worded)	You do not receive prompt service from the restaurant's employees. (- worded)	Assurance	Employees should be polite.	The restaurant's employees of are very polite.	Empathy	It is unrealistic to expect employees to know what the needs of their customers are. (- worded)	The restaurant's employees don't know what your needs are. (- worded)
1		7	6		7	6		1	3		7	7		2	4
2		7	6		6	7		1	6		6	7		4	2
3		7	7		6	6		1	6		7	6		1	6
4		7	7		7	7		1	7		7	7		4	7
5		7	7		7	7			7		7	7			7
6		6	6		7	6		1	6		7	7		5	6
7		6	6		7	4		1	6		7	6		6	4
8		4	6		4	4		4	1		4	7		4	1
9		4	6		7	6		1	1		7	7			
10		5	5		5	5		2	5		6	6		3	6
11		5	5		5	5		5	5		5	5		5	5
12		7	7		7	7		7	7		7	2		7	1
13		7	7		7	7		7	1		7	7		7	2
14		6	5		7	4		2	2		7	6		2	3
15		6	6		7	5		1	4		7	6		1	4
16		6	6		7	6		1	2		7	7		4	
17		6	7		6	7		5	1		6	7		6	3
18		6	6		6	6		2	2		6	6		5	2
19		6	7		7	6		7	3		7	7		4	2
20		5	7		7	7		1	1		7	7		2	1
21		6	6		7	7		1	2		7	6		1	1
22		7	5		6	6		5	1		7	7		7	1
23		7	7		6	7		1	1		7	7		1	1
24		4	6		6	6		3	2		7	7		4	3
25		5	6		5	4		1	3		6	5		3	6

Question 7 & 8 Continued…

		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION		EXPECTATION	PERCEPTION
CUSTOMER	Tangibles	The appearance of the physical facilities should be consistent with the type of service provided.	The appearance of the restaurant's physical facilities is consistent with the type of service provided	Reliability	When customers have problems, restaurant employees should be sympathetic and reassuring.	When you have a problem, the restaurant is sympathetic and reassuring.	Responsiveness	It is not realistic for customers to expect prompt service from restaurant employees. (- worded)	You do not receive prompt service from the restaurant's employees. (- worded)	Assurance	Employees should be polite.	The restaurant's employees of are very polite.	Empathy	It is unrealistic to expect employees to know what the needs of their customers are. (- worded)	The restaurant's employees don't know what your needs are. (- worded)
26		7	5		7	4		5	4		7	5		4	4
27		7	6		7	4		5	2		7	7		5	2
28		7	7		7	1		1			4	4		1	4
29		7	7		1	4		1	4		7	6		4	5
30		6	3		4	5		2	2		6	7		4	2
31		7	7		7	4		1	4		7	7		1	2
32		7	7		7	6		6	2		7	7		6	3
33		7	7		7	7		2	1		7	7		3	1
34		7	7		7	7			2		7	7			7
35		6	6		7	6		1	2		7	6		2	1
36		6	6		7	6		2	3		7	6		1	4
37		7	7		5	6		7	7		7	7		7	2
38		6	6		7	6		2	2		7	5		4	6
39		7	3		7	6		1	2		7	6		4	6
40		6	6		7	7		3	1		7	6		2	2
41		6	6		7	4		3	6		7	7		5	2
42		7	7		7	7		1	3		7	7		6	3
43		7	7		7	7		1			7	7		7	7
44		6	6		6	6		5	2		6	6		5	2
45		7	6		7	6		1	2		7	6		1	2
46		6	6		7	7		2	2		7	6		4	4
47		6	6		7	6		2	2		7	5		3	3
48		6	6		7	7		6	1		7	7		2	1
49		4	7		7	7		1	1		7	7		4	1
50		6	3		7	6		2	4		7	7		7	2

Question 9			
Customer	Answer the questions based on this restaurant.		
	The resturant's quality of srvice is quite high	I would recommend the restaurant to my friends for this type of service quality.	I will chose this restaurant's service over others in the future.
1	5	4	4
2	6	6	6
3	6	5	6
4	7	7	7
5	7	7	7
6	6	7	5
7	6	6	5
8	6	6	6
9	7	7	7
10	5	6	5
11	5	5	4
12	7	7	7
13	7	7	7
14	5	4	2
15	5	5	4
16	7	6	6
17	7	7	7
18	6	6	6
19	7	7	7
20	6	7	5
21	6	7	6
22	7	7	7
23	7	7	7
24	7	7	6
25	6	5	4
26	4	4	4
27	6	6	4
28	6	5	4
29	6	6	4
30	7	7	7
31	5	7	6
32	7	7	7
33	7	7	7
34	7	7	6
35	7	7	6
36	5	5	5
37	7	7	6
38	7	7	5
39	7	7	5
40	6	6	6
41	6	7	6
42	7	7	6
43	7	7	6
44	6	6	5
45	6	6	6
46	6	6	6
47	5	5	4
48	6	6	5
49	7	7	7
50	6	5	4

B.14. Processed TQM Interview Results Table

Restaurant B					
TQM Element	***Questions***	**Employee 2**			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Employee Empowerment	**3. What do you do here?**		No score allocated to this question. As it is merely used to provide context. It is used to better understad the duties of the staff member, which may help understand the employee's level of empowerment.		
	18. What, in your opinion, is your purpose in the operation of the business?	To add value. Assist in operations to achieve superior quality/excellent quality and maximise customer satisfaction.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	To work together to achieve the business's goal. Teamwork. Help eachother.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	21. Have you had any training in the restaurant industry?		No score allocated to this question. The question's purpose is to establish whether an employee's knowledge of TQM or any other quality management practice is the result of the restaurant's training procedures or not.		
	22. Have you been trained by this restaurant?	Yes	Yes=1 ; No=0		
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	Problem solving. Addressing the issue. Authority to make decisions to ammend the problem.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	24. Are there problems that you cannot deal with?	No	No= 1 ; Yes=0		

TQM Element	*Questions*	Employee 2 continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Employee Empowerment	**25. Why? What can the manager do that you cannot?**		No score allocated to this question. As it is merely used to provide context. It is used to better understad the staff member's authority.		
	27. Do you have staff meetings?	Yes. Regularly. (at least weekly)	Yes=1 ; Sometimes= 0,5 ; no = 0		
	28. How often?		No score has been allocated to this answer as it is accounted for in the previous question.		
	29. What is discussed?	Identify presence of empowered employees. Do they problem solve? Do they discuss issues/ complaints and how to solve them? Do they show evidence of increased involvement in decision making. Do the employees discuss ways of improving the functioning of the business?	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	35. Would you say there is presence of teamwork here?	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0		
	36. Why?	It is the company's culture. Focus on teamwork and its benefits. Identify the presence of work teams/quality circle amongst employees.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
SUB TOTAL			**9**		

TQM Element	*Questions*	Employee 2 continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Customer Focus	**5. What is the aim/goal of the business??**	To satisfy the customer. Meet and exceed their expecations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	6. How important are the needs of the customer on a scale of 1-5?	5	5'=1 ; anything below = 0		
	7. Why?	The company would not exist if it weren't for its customers	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	8. Do you KNOW what customers want from the restaurant?	Yes	Yes=1 ; No=0		
	9. HOW do you know what they want?	We hand out surveys and we investigate. We ask them. All operations within the company are focused on satisfying the customer.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	10. What DO they expect from the restaurant?		No score is allocated to this question, as the asnwer cannot be determined by the researcher but by the customer. The of the question is to identify whether or not the restaurant's employees are aware of the customer's expectations, and potentially investigate whether the responses obtained through the service quality survey aligns with the responses given here.		
SUB TOTAL			**5**		

Employee 2 Continued					
TQM Element	**Questions**	***Ideal Answer***	***Scoring Procedure***	***Given Answer***	***Score***
Continuous Improvement	**11. Do you implement changes in the business? (In terms of operations).**	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0		
	12. If so, how often?	Regularly. Changes should be made on a continuous basis to ensure continuous improvement. (Regularly=once a month)	Regularly=1; not=0		
	13. What kinds of changes?	Operations and/or product offering and/or service quality.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	14. Why do you implement these changes?	To increase standards of quality. Improve service levels and customer satisfaction. Increase profitability.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	15. Do you ever have customer complaints?		No score is allocated to this question, as it's purpose is to introduce the following question. It has no value in establishing the presence of TQM in the restaurant.		
	16. What do they complain about?		No score allocated to this question. As it is necessary to provide context. It is used to better understad the customer and create links between the TQM based questionnaire and the customer surveys. It will showcase in the discussion of the results obtained.		
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	Investigate the complaint by identifying the reason for the complaint and eliminating the cause i.e. from the source. If possible. Implementing improvements.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	31. Do you compare yourselves with other restaurants?	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0		

Employee 2 Continued					
TQM Element	**Questions**	***Ideal Answer***	***Scoring Procedure***	***Given Answer***	***Score***
Continuous Improvement	**32. Why?**	To improve company. Investigate the methods that make the competitor superior and apply what was learnt to company operations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	33. With whom?	Companies that are best in their field. Better than the company in question in some aspects. Competitors.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	34. What do you compare?	Service quality, operations (efficiency), product offerrings.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
SUB TOTAL			9		
Seven Tools of Quality	**17. Do you know the number of customer complaints per day/week/month?**	Yes. (Looking for them to state that they record the number)	Yes=1 ; No=0		
	20. What is quality? How would you define it?	Product quality and service quality.The quality of the food is determined by its ability to fulfil its inferred specifications or menu description. Service quality is more user/ consumer dependent and its definition is a combination of "value for price paid". (Thus once a company establishes their definition of quality for the purpose of their business, they can then begin to invest in various means of achieving the level of quality they desire).	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
	30. What do you do with the information that is discussed in meetings?	Record it. Make graphical representaion of the information in order to contInually reflect on the information and improve on/identify new issues. Implement change.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point		
SUB TOTAL			3		
GRAND TOTAL			**26**		

Maximum obtainable TQM score

B.15. Processing of Question 1, 2 & 3 responses for the customer surveys.

- For Restaurants A, C, D all surveys were correctly answered, so the data required no significant processing.
- For Restaurant B, however, Customers 23,24, 27 & 28 responded incorrectly to Q2; (more than one answer was given) therefore the data was adjusted in the respective manner:
    - Customer 23 selected "food", "service" and "other". Since a reason was given for "other" this option was kept and "food" and "service" were eliminated.
    - Customer 24 selected "food", "service" and "food&service". Therefore "food" and "service" were removed, as they are accounted for by "food&service"
    - Customer 27 selected "food&service" and "service", so the latter was eliminated.
    - Customer 28 selected x and "other", but since no reason was given for "other" it was removed.
- Questions 7 & 8 for Restaurants A and C both required processing in order to obtain a complete data set as numerous customers failed to provide a response for some of the SERVQUAL questions

    Restaurant A:

    - List-wise deletion was used on Customers 17, 36 and 49 as they had more than 1 data point missing.
    - Common-point imputation was used on Customers 29 and 42 as they only had 1 missing data point; the mode was used to replace their missing data point. Customer 29 had a missing 'responsiveness' perception score, which was replaced by a '7'. Customer 42 was missing a 'reliability' perception score, which was also replaced by the data's mode – '6'

    Restaurant C:

    - List-wise deletion was used on Customers 5, 9 and 34 was they had more than 1 data point missing.
    - Common-point imputation was used on Customers 16, 28, and 43 as they only had 1 missing data point; the mode for the respective customer's data was used to replace their missing data point. Customer 16 was missing an 'assurance' perception score, which was replaced by a '6'. Customer 28 was missing a 'responsiveness' perception score, which was also replaced by the data's mode – '6'. Customer 43 was missing a 'responsiveness' perception score, which was also replaced by a '7'.

Appendix C

C.1. Content Analysis of Employee 1 at Restaurant A

Restaurant A					
TQM Element	***Questions***	**Employee 1**			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Employee Empowerment	**3. What do you do here?**		No score allocated to this question. As it is merely used to provide context. It is used to better understad the duties of the staff member, which may help understand the employee's level of empowerment.	I serve food. Listen to customers if they have a complaint or a compliment. I make sure that the customers are happy.	
	18. What, in your opinion, is your purpose in the operation of the business?	To add value. Assist in operations to achieve superior quality/excellent quality and maximise customer satisfaction.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	I'm here to make customers happy, so that I get money as well. I make sure that the customers get good food. I'm here to make sure that the customers come back again.	1
	19. What, in your opinion, is the purpose of those around you (your fellow employees) in the operation of the business?	To work together to achieve the business's goal. Teamwork. Help eachother.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	To work as a team so that we can keep the business going.	1
	21. Have you had any training in the restaurant industry?		No score allocated to this question. The question's purpose is to establish whether an employee's knowledge of TQM or any other quality management practice is the result of the restaurant's training procedures or not.	Yes.	
	22. Have you been trained by this restaurant?	Yes	Yes=1 ; No=0	Yes. I was trained to know the menu and the food. I learnt how to work with people. To give good service, and to handle customer complaints.	1
	23. What do you do in the event of a complaint? (How do you go about dealing with it?) (Ensure there is specificity to the answer)	Problem solving. Addressing the issue. Authority to make decisions to ammend the problem.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	I listen to what the customer is complaining about. It is a meal, I ask if he/she wants something else. I take it back to the kitchen and call the manager. I tell the manager what happened and then the manager deals with the issue.	0,5
	24. Are there problems that you cannot deal with?	No	No= 1 ; Yes=0	Yes.	0

TQM Element	*Questions*	Employee 1 continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Employee Empowerment	**25. Why? What can the manager do that you cannot?**		No score allocated to this question. As it is merely used to provide context. It is used to better understad the staff member's authority.	When the food isn't coming out from the kitchen fast enough. I cant go to the kitchen to ask them what's going on. I have to get the manager to find out and sort out the problem. There is often a lot of tension in the kitchen, and they wont listen to me (a waiter) . They listen to the manager.	
	27. Do you have staff meetings?	Yes. Regularly. (at least weekly)	Yes=1 ; Sometimes= 0,5 ; no = 0	Yes.	1
	28. How often?		No score has been allocated to this answer as it is accounted for in the previous question.	2 to 3 times a week. (waiters and front of house managers)	
	29. What is discussed?	Identify presence of empowered employees. Do they problem solve? Do they discuss issues/ complaints and how to solve them? Do they show evidence of increased involvement in decision making. Do the employees discuss ways of improving the functioning of the business?	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	We discuss the customer complaints. How we should handle complains. (e.g. on the weekend, when food doesn't come out of the kitchen we mustn't go shout but call a manager to deal with the issue). We talk about teamwork. About service, we must look after the customer, because it makes a difference to the customer. We talk about being late- that we must call in if we are late or sick.	0,5
	35. Would you say there is presence of teamwork here?	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0	Not really.	0
	36. Why?	It is the company's culture. Focus on teamwork and its benefits. Identify the presence of work teams/quality circle amongst employees.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Some waiters won't clear my table , because it isn't theirs.	0
SUB TOTAL			**9**		**5**

TQM Element	*Questions*	Employee 1 Continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Customer Focus	**5. What is the aim/goal of the business??**	To satisfy the customer. Meet and exceed their expecations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	To serve different food that satisfies different peoples needs. To keep the customers happy.	1
	6. How important are the needs of the customer on a scale of 1-5?	5	5'=1 ; anything below = 0	Very Important.	1
	7. Why?	The company would not exist if it weren't for its customers	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	The customers are paying so they must get good quality products and service	0,5
	8. Do you KNOW what customers want from the restaurant?	Yes	Yes=1 ; No=0	Yes.	1
	9. HOW do you know what they want?	We hand out surveys and we investigate. We ask them. All operations within the company are focused on satisfying the customer.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Most customers sit and order what they want.	0
	10. What DO they expect from the restaurant?		No score is allocated to this question, as the asnwer cannot be determined by the researcher but by the customer. The of the question is to identify whether or not the restaurant's employees are aware of the customer's expectations, and potentially investigate whether the responses obtained through the service quality survey aligns with the responses given here.	They expect good service. Good environment, a lovely atmosphere and good food.	
SUB TOTAL			**5**		**3,5**

TQM Element	Questions	Employee 1 Continued			
		Ideal Answer	***Scoring Procedure***	***Given Answer***	***Score***
Continuous Improvement	**11. Do you implement changes in the business? (In terms of operations).**	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0	Not really. I'm still new here and adjusting to the way things run.	0
	12. If so, how often?	Regularly. Changes should be made on a continuous basis to ensure continuous improvement. (Regularly=once a month)	Regularly=1; not=0	-	0
	13. What kinds of changes?	Operations and/or product offering and/or service quality.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	-	0
	14. Why do you implement these changes?	To increase standards of quality. Improve service levels and customer satisfaction. Increase profitability.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	-	0
	15. Do you ever have customer complaints?		No score is allocated to this question, as it's purpose is to introduce the following question. It has no value in establishing the presence of TQM in the restaurant.	Yes.	
	16. What do they complain about?		No score allocated to this question. As it is necessary to provide context. It is used to better understad the customer and create links between the TQM based questionnaire and the customer surveys. It will showcase in the discussion of the results obtained.	They complain that the food takes long on the weekends. That the tea isn't hot enough. On weekends they complain that their food takes too long to get to the table. If they order items from the morning menu (which runs until 11am) just before 11 (i.e. 10:50) that meal takes a very long time to get to them.	
	26. How do you prevent these complaints for occurring? (Ensure that the answer is specific)	Investigate the complaint by identifying the reason for the complaint and eliminating the cause i.e. from the source. If possible. Implementing improvements.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	I make sure that the customer gets what he/she wants at the right time.	0,5
	31. Do you compare yourselves with other restaurants?	Yes	Yes=1 ; Sometimes= 0,5 ; no = 0	Yes.	1

Employee 1 Continued					
TQM Element	**Questions**	***Ideal Answer***	***Scoring Procedure***	***Given Answer***	***Score***
Continuous Improvement	**32. Why?**	To improve company. Investigate the methods that make the competitor superior and apply what was learnt to company operations.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	-	0
	33. With whom?	Companies that are best in their field. Better than the company in question in some aspects. Competitors.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Turn ‘n Tender	1
	34. What do you compare?	Service quality, operations (efficiency), product offerrings.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	I compare our prices and the speed that the meals come out of kitchen.	1
SUB TOTAL			**9**		**3,5**
Seven Tools of Quality	**17. Do you know the number of customer complaints per day/week/month?**	Yes. (Looking for them to state that they record the number)	Yes=1 ; No=0	We mostly have complaints on the weekends. But we don’t keep a record.	0
	20. What is quality? How would you define it?	Product quality and service quality.The quality of the food is determined by its ability to fulfil its inferred specifications or menu description. Service quality is more user/ consumer dependent and its definition is a combination of “value for price paid”. (Thus once a company establishes their definition of quality for the purpose of their business, they can then begin to invest in various means of achieving the level of quality they desire).	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	Well for example, if you order a fillet steak here vs. at Mugg & Bean, the taste and presentation is going to be different. And that describes the quality of the meal.	0
	30. What do you do with the information that is discussed in meetings?	Record it. Make graphical representaion of the information in order to contInually reflect on the information and improve on/identify new issues. Implement change.	1= elements of the ideal answer are addressed; 0,5 = partially answered ; 0 = missed the point	We make sure to do what we have spoken about.	0,5
SUB TOTAL			**3**		**0,5**
GRAND TOTAL			**26**		**12,5**

C.2. Normalising the TQM scores

To obtain the normalised scores, the results of the TQM element scores obtained from the content analysis (represented by the first table) are divided by their respective maximum obtainable scores (represented in the second table) to obtain the new TQM element scores , which are rated out of 1.

Original Scores from the content analysis

TQM Element	**Scores**				*Maximum Obtainable Total Score*
	Restaurant A	*Restaurant B*	*Restaurant C*	*Restaurant D*	
Employee Empowerment	5,60	6,44	4,56	5,44	9
Customer Focus	3,80	3,75	3,75	3,38	5
Continuous Improvement	5,90	5,69	4,88	3,31	9
Tools of Quality	1,30	0,75	0,75	0,63	3
Total TQM Score	**16,60**	**16,63**	**13,94**	**12,75**	**26**

TQM Element	**Scores**				*Maximum Obtainable Total Score*
	Restaurant A	*Restaurant B*	*Restaurant C*	*Restaurant D*	
Employee Empowerment	5,6 / **9**	6,4375 / **9**	4,5625 / **9**	5,4375 / **9**	9
Customer Focus	3,8 / **5**	3,75 / **5**	3,75 / **5**	3,375 / **5**	5
Continuous Improvement	5,9 / **9**	5,6875 / **9**	4,875 / **9**	3,3125 / **9**	9
Tools of Quality	1,3 / **3**	0,75 / **3**	0,75 / **3**	0,625 / **3**	3
Total TQM Score	**sum above scores**	**sum above scores**	**sum above scores**	**sum above scores**	

"Normalised" TQM scores

TQM Element	Scores				
	Restaurant A	*Restaurant B*	*Restaurant C*	*Restaurant D*	*Maximum Obtainable Total Score*
Employee Empowerment	0,6	0,7	0,5	0,6	1
Customer Focus	0,8	0,8	0,8	0,7	1
Continuous Improvement	0,7	0,6	0,5	0,4	1
Tools of Quality	0,4	0,3	0,3	0,2	1
Total TQM Score	**2,47**	**2,35**	**2,05**	**1,86**	**4**

C.3. Method for obtaining the frequency tables

Firstly, the occurrence of the 3 scores were counted for each restaurant's TQM element.

The results were then divided by the respective total score (employee empowerment scores were divided by 72) and multiplied by 100 to obtain the frequency as a percentage.

EMPLOYEE EMPOWERMENT				
Restaurant	***Score Frequency***			
	0	***0,5***	***1***	
A	18	19	35	*total =72*
B	13	15	44	
C	21	29	22	
D	12	33	27	

CUSTOMER FOCUS				
Restaurant	***Score Frequency***			
	0	***0,5***	***1***	
A	5	9	26	*total = 40*
B	6	8	26	
C	4	10	26	
D	10	4	26	

Employee Empowerment			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	25	26	49
B	18	21	61
C	29	40	31
D	17	46	37

Customer Focus			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	13	22	65
B	15	20	65
C	10	25	65
D	25	10	65

CONTINUOUS IMPROVEMENT			
Restaurant	***Score Frequency***		
	0	***0,5***	***1***
A	15	19	38
B	14	25	33
C	22	22	28
D	37	17	18

total =72

TOOLS OF QUALITY			
Restaurant	***Score Frequency***		
	0	***0,5***	***1***
A	9	10	5
B	13	10	1
C	15	6	3
D	15	8	1

total =24

Continuous Improvement			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	21	26	53
B	19	35	46
C	31	31	38
D	51	24	25

Tools of Quality			
Restaurant	***Score Frequency %***		
	0	***0,5***	***1***
A	38	42	21
B	54	42	4
C	63	25	12
D	63	33	4

C.4. The result tables that display the customer survey responses

Restaurant A

Q1 & Q2 & Q3								Q4			Q6						
	1: How often do you visit restaurant?		2: Why?				3: Reason for Other				Age group						
Customer	First Time	More than Once	Service	Food	Food and service	Other	Convenience	Environment	1st	2nd	3rd	18-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	75 older years old
1	1								NA	NA	NA				1			
2		1	1						NA	NA	NA		1					
3		1			1				Life Waterfall	Bais Cape Town	Sloppy Sam Sea Point		1					
4		1			1				Babylon	Restaurant A	Pappa's		1					
5		1			1				Vovo Telo	Salt	Doppio Zero		1					
6		1			1				Restaurant A	Adega	NA					1		
7		1			1				Fishmonger	Pizza Vino	NA					1		
8	1								Sardinia Windhoek	NA	NA		1					
9		1			1				Restaurant A	Sopheas	NA							1
10		1			1				Pigalle	Restaurant A	Turn 'n Tender			1				
11	1								The Pig (UK)	The Spice Market (W Hotels)	JW Steakhouse (Marriot)		1					
12	1								Restaurant A	Doppio Zero	NA		1					
13		1				1		1	Mosaic	Moemas	Wombles			1				
14		1			1	1		1	Andiccios	Nandos	Health Restarants		1					
15	1								Restaurant A	Butcher's Block	Spur				1			
16	1								Restaurant A	Mc Donalds	KFC	1						
18	1								Restaurant A	Mc Donalds	Cinnabon	1						
19		1			1				NA	NA	NA	1						
20	1								Sushito on South	NA	Restaurant A	1						
21	1								Butcher's Grill	Rhapsody's	Ocean Basket			1				
22	1								Vilamoura	Jimmy's Killer Prawns	Ocean Basket				1			
23		1				1	1		NA	NA	NA				1			
24		1			1				Fishmonger	Grill House	NA			1				
25	1								Pigalle	Tasha's	Mugg & Bean		1					
26		1			1				Trumps	Mugg & Bean	Butcher Shop			1				
27		1			1				JB'S Corner	2 Thai 4	Mugg & Bean		1					
28		1			1				Nando's	Col' Cacchios	Restaurant A		1					
29	1								Adega	Butcher Shop	Mugg & Bean				1			
30		1			1				The Grill	Spur	Ocean Basket			1				
31		1		1					Col' Cacchios	Simply Asia	Turn 'n Tender	1						
32		1		1					Col' Cacchios	Simply Asia	Turn 'n Tender	1						
33		1			1				Ocean Basket	Adega	Spur		1					
34	1								Tasha's	Grill House	Steers	1						
35	1								Japa	Butcher's Block	NA		1					
37		1		1					Signature	Tasha's	Restaurant A		1					
38		1			1				Bellinis	The Foundry	Vovo Telo	1						
39		1			1				Tasha's	Mezepoli	Bellinis		1					
40		1			1				Tasha's	Restaurant A	Turn 'n Tender		1					
41		1			1				Restaurant A	Craft	Espresso	1						
42	1								Green Peppercorn	Riverside Café	Delhi Darbar		1					
43		1			1				Grillhouse	Pizza Vino	Turn 'n Tender			1				
44		1			1				The Leopard	Perron	Escondido Tapas		1					
45		1			1				Restaurant A	Ocean Basket	The Butcher Block			1				
46		1			1				Doppio Zero	Mugg & Bean	Ocean Basket				1			
47		1			1				Pappas	Restaurant A	Nandos			1				
48		1			1				Thyme on Nicol	Yi-Pin Restaurant	Restaurant A	1						
50		1			1				Restaurant A	Sopheas	NA							1

Restaurant B

Q 1 & Q 2 & Q 3									Q 4			Q 6						
	1: How often do you visit		2: Why?				3: Reason for Other		4: What are your favourite restaurants?			Age group						
Customer	First Time	More than Once	Service	Food	Food and service	Other	Convenience	Environment	1st	2nd	3rd	18-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	75 older years old
1		1				1	1		Tashas	Vovo Telo	Mythos	1						
2		1			1				Tashas	Pigalle	Primi Piatti			1				
3		1		1					Vicky Christina	Red Rabbit	Rodizio				1			
4		1			1				Tashas	**Restaurant B**	Beluga	1						
5		1		1					Meat Company	**Restaurant B**	Mythos			1				
6		1		1					Adega	La Pareirinha	N/A		1					
7	1								Simply Asia	Hudsons	Tashas	1						
8		1			1				Remo's Waterfall	Bellini's	The Sheds			1				
9	1								Tashas	Vovo Telo	Life		1					
10		1			1				Pomodoro	Europa	**Restaurant B**				1			
11	1								Caraffa	Plaka	Yamitzuki		1					
12		1			1				Rocomama's	**Restaurant B**	Capello's			1				
13	1								Yamitzuki	Mantovanis	Rodizio		1					
14		1			1				N/A	N/A	N/A			1				
15	1								Gemma	Rodizio	Mantovannis		1					
16		1			1				Fishmonger Thrupps	Turn 'n' Tender	**Restaurant B**				1			
17		1			1				Europa	Tasha's	Doppio		1					
18		1			1				Yamitsuki	**Restaurant B**	Mariner		1					
19		1			1				**Restaurant B**	Wonble Park Town North	Moyo Zoo Lake		1					
20		1			1				N/A	N/A	N/A				1			
21		1		1					Fournos	**Restaurant B**	Ocean Basket			1				
22		1			1				Mugg & Bean	**Restaurant B**	Moyo		1					
23		1				1		1	Big Mouth	Signature	Pigalle	1						
24		1			1				Tashas	**Restaurant B**	Tortellino D'oro		1					
25		1			1				Tortellino D'oro				1					
26		1	1						Orient	Giselle	Grapino		1					
27		1			1				Mezepoli	Turn 'n' Tender	Orient		1					
28		1		1					Grand Central Melrose	**Restaurant B**	JB Rivers Hyde Park			1				
29		1		1					Tashas	Vovo Telo	Hudsons	1						
30		1		1					Plaka	Turn 'n' Tender	Adega	1						
31		1		1					Turn 'n' Tender	Bellagio		1						
32		1			1				Signature	Plaka	**Restaurant B**				1			
33		1		1					Turn 'n' Tender	Plaka	Adega	1						
34		1		1					Tortellino D'oro	Tasha's	Plaka	1						
35		1			1				Tashas	Il Tartufo	Teta Marie		1					
36		1			1				RTG	Next Door	The Deli Store		1					
37		1		1					Tashas	Licorish	Mythos	1						
38	1								KFC	Nandos	Mugg & Bean		1					
39	1								Mythos	Plaka	Tashas				1			
40		1		1					Fishmonger	Riverside Café	Tortellino D'oro		1					
41	1								Fego	Long Hai	Bembom	1						
42		1		1					Oyo	Rocomamas	Bellinis		1					
43		1		1					Mon Petit Throbb	KOI	Social on Main		1					
44	1								Cappuccinos	Turn 'n' Tender	Burger Rack	1						
45		1			1				Turn 'n' Tender	Yamada Sushi	Café Del Sol		1					
46		1			1				Turn 'n' Tender	Burger Rack	Cappuccinos		1					
47		1			1				Europa	Red Rabbit	Fishmonger	1						
48		1		1					Signature	Col Caccios	Junipas Bistro		1					
49	1								Bennigans	Ocean Basket	Plaka		1					
50		1		1					Fishmonger	KOI	Turn 'n' Tender		1					

Restaurant C

Q 1,2,3									Q 4			Q 6						
	1: How often do you visit restaurant?		2: Why?				3: Reason for Other					AGE GROUP						
Customer	First Time	More than Once	Service	Food	Food and service	Other	Convenience	Environment	Business	1st	2nd	3rd	18-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	75 older years old
1		1			1					Piatto	Adega	Promise Grill		1					
2		1		1		1	1			Tasha's	Princi	Europa	1						
3		1			1					Europa	Rich Grill	The Steakery				1			
4		1			1					Europa	Turn 'n Tender	Rich Grill							1
6		1			1					Lua	Smile Café	Aroma		1					
7		1			1					Pigale	Mugg & Bean	Fishmonger				1			
8	1									Ocean Basket	News Café	NA			1				
10		1			1					Mugg & Bean	Il' Camino	NA							1
11		1			1					Spur	Mugg & Bean	Ducks Henley			1				
12		1			1					Restaurant C	Browsers Newmarket	Olives & Plates				1			
13		1			1					Restaurant C	Turn 'n Tender	Tasha's		1					
14		1		1						Adega	Allora	Piatto	1						
15		1		1						Piatto	Rich Grill	Allora				1			
16		1			1					Piatto	Restaurant C	Café Rossini				1			
17		1			1					Nandos	Restaurant C	Café Figo		1					
18		1			1					Piatto	Restaurant C	Café Rossini				1			
19		1		1						Grillhouse	Tasha's	Plaka	1						
20		1			1					Fournos	Restaurant C	Mugg & Bean					1		
21		1			1	1		1		Restaurant C	Turn 'n Tender	Piatto		1					
22		1			1					Mugg & Bean	Restaurant C	Europa					1		
23		1			1					Restaurant C	NA	NA						1	
24		1			1					Pigale	Possums Bistro	Botegga				1			
25		1				1			1	NA	NA	NA				1			
26	1									NA	NA	NA			1				
27	1									Primi Piatti	Mugg & Bean	NA		1					
28	1									Ocean Basket	Villa Varai	NA				1			
29		1		1						Lua	Ocean Basket	Café Rossini		1					
30		1			1					Tasha's	Vovo Telo	Restaurant C		1					
31		1		1						Back o' the Moon	Meat Co	The Baron		1					
32		1			1					Restaurant C	Mugg & Bean	Mantovanis					1		
33		1			1					Restaurant C	Life Grand Café	Olives & Plates		1					
35		1			1					Pigale	Mythos	Calistos	1						
36		1			1					Restaurant C	Lua	Café Rossini				1			
37		1			1					Ghazil	Wang Thai	Tasha's			1				
38		1			1					The Grill House	Tasha's	Craft				1			
39	1									Ocean Basket	Mantovanis	Primi Piatti					1		
40		1		1						DW 11 13	Bottega	NA		1					
41		1			1					Turn 'n Tender	Mad Platter	Fire & Ice	1						
42		1			1					Restaurant C	Tin Cup	Madeira Bar				1			
43		1			1					Turn 'n Tender	Ocean Basket	Restaurant C						1	
44		1			1					Ocean Basket	Simply Asia	Sakura		1					
45		1			1					Mythos	Nice	Service Station				1			
46		1			1					Promise Grill	Ocean Basket	Piatto		1					
47		1		1						Turn 'n Tender	Restaurant C	Piatto				1			
48		1			1					Restaurant C	Plaka					1			
49		1			1					Grillhouse	Parea	Bennigans			1				
50	1									Ocean Basket	Andiccios	Turn 'n Tender			1				

Restaurant D

	Q 1,2,3							Q 4			Q 6						
	1: How often do you visit restaurant?		2: Why?				3: Reason for Other	4: What are your favourite restaurants?			AGE GROUP						
Customer	First Time	More than On	Service	Food	ood and servic	Other	Convenience	Environment	1st	2nd	3rd	18-24 years old	25-34 years old	35-44 years old	45-54 years old	55-64 years old	65-74 years old	75 older years old
1		1		1					Tashas	Restaurant D	Yamitsuki	1						
2		1			1				Vovo Telo	Kong Sing	Restaurant D	1						
3		1				1	1		Mugg and Bean	Calistos	Restaurant D			1				
4		1				1		1	Ocean Basket	Spur	Panarottis						1	
5		1				1	1		NA	NA	NA		1					
6		1			1				Calistos	Adega	Piatto		1					
7		1				1	1		Adega	Mythos	Rossa						1	
8		1				1	1		Mythos	Calistos	Rossa				1			
9		1			1				Restaurant D	Cape Town Fishmarket	Rich		1					
10		1				1	1		Signature	Koi	Simply Asia		1					
11		1	1						Rich	Restaurant D	Calistos		1					
12	1								NA	NA	NA						1	
13	1								Turn 'n Tender	Rusty Lady	The Steakery			1				
14	1								Mondo Vido	Vovo Telo	Ottimo	1						
15	1								NA	NA	NA						1	
16	1								NA	NA	NA						1	
17	1								Pigalle	Turn 'n Tender	NA					1		
18		1			1				Mythos	Tribeca	Tashas				1			
19		1		1					Mythos	Brooklyn Brothers	Wasabi		1					
20		1				1	1	e before a m	Plaka	Catch	Erawan			1				
21	1								Mugg & Bean	Queen of the Nile	Pizza Del Forno	1						
22		1				1	1	Drinks	Tashas	Michael Angelo	News Café	1						
23		1				1	1		Watami	The rat and Parrot	Debonairs	1						
24		1		1					Turn 'n Tender	Mimmos	Yamada	1						
25		1		1					Red Rabbit	Mythos	Rich	1						
26		1			1				Turn 'n Tender	Adega	Rocomamas		1					
27		1			1				Bellinis	Tortellino D'oro	Signature					1		
28		1				1		1	Giovannis	Mythos	The Foundry					1		
29		1			1				Mythos	Rossa	Giovanni's (Sale Pepe)			1				
30		1			1				Grand Central	The Ribhouse	Mythos	1						
31		1			1				Tribes	Turn 'n Tender	Simply Asia		1					
32		1				1	1	se to the mo	Oyo	Rocket	Cube		1					
33		1				1	1		Simply Asia	Koi	Plaka				1			
34		1				1	1		The Cube	DW Eleven Thirteen	Simply Asia		1					
35		1				1	1		Alora	Simply Asia	Tashas					1		
36		1				1	1		Tashas	Woolworths Café	Rockets	1						
37		1			1				Rossa	Ocean Basket	Malagueta	1						
38	1								Farenheit	Rossa	Ocean Basket	1						
39		1				1	1	efore going	Thr Grillhouse	Fishmonger	Pigalle	1						
40		1			1				Restaurant D	Happily Ever Laughter	Mythos				1			
41		1			1				Rossa	Mimmos	Steers	1						
42		1			1				Local Grill	Rich	Fishmonger	1						
43		1			1				Rich	Turn 'n Tender	Mythos	1						
44		1		1					Turn 'n Tender	Ocean Basket	Rossa	1						
45		1			1				Turn 'n Tender	Plaka	Adega		1					
46		1			1				Restaurant D	The Baron	Rocomamas	1						
47		1		1					Rocomamas	McDonalds	Ottimo	1						
48		1			1				Vovo Telo	Tasha's	Rocomamas	1						
49		1		1					Nonna Mia	Plaka	Tashas	1						
50		1			1				Alora	Tasha's	Fournos				1			

C.5. Observation Tables

Restaurant A	
OBSERVATIONS	**COMMENTS**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)	• No physical evidence of the use of the 7 tools of quality by the employees. There are no checklists available in plain sight for the employees to refer to for a list of their duties. • Checklists are communicated verbally between managers e.g. "Have you ordered flour for tomorrow?" , and between waiters e.g. "Do you need me to clean trays, or have you done them already?" • No graphical representation of information at all. • No graphs of data or information on sales or number of complaints. Majority of the staff seem to be disconnected from the operations of the company.
Presence of work teams or groups. Staff meeting?	There are morning meetings between the waiters. This roughly resembles a work group. • It must be noted that this meeting seemed to have occurred because of the researcher's inquiry into whether or not there was to be a meeting. • It is supervised by the headwaiter and only waiters are present. • There doesn't appear to be much input from the waiters and most of the talking is done by the headwaiter. • No clear evidence of discussions amongst the waiters about the matters at hand, nor any attempt to reflect on problems encountered by staff. There seems to be a split between management and waiters.
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?	Observed complaints: 1. A customer complained that there was no Greek salad available on the menu. The waiter could not do anything about the issue but approach the floor manager. The floor manager noted the complaint and addressed the customer, and offered to create a salad for them at the appropriate price. The customer then accepted this offer. The manager then had to approach to owner in order to come up with an appropriate item price. 2. A customer complained flagged a manager down to complain about the slow service, as they had been waiting a long time for both their food and drinks. The manager apologised on behalf of the waiter and offered to at the end of the meal provide the customers with a complimentary slice of cake and then personally went to the kitchen to inquire about the delays. In both cases it appears as though the managers and owners have the most authority, whereas the waiters have very little.
Staff's general interaction with the customers.	The staff's attitudes towards and interactions with the customers vary greatly from employee to employee. There are some waiters who appear to have a warmer approach to their customers, and there are others who seem disinterested. Some waiters are more attentive, while others are less attentive. Floor managers appear to be hands on at times. Although it seems that managers don't always approach customers to check on them. Some customers are checked on, others are not. There is inconsistency here.

Restaurant B	
OBSERVATIONS	**COMMENTS**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)	• No physical evidence of the use of the 7 tools of quality by the employees. There are no checklists available in plain sight for the employees to refer to for a list of their duties.
Presence of work teams or groups. Staff meeting?	A staff meeting was observed from a distance. • The floor manager chaired the meeting between waiters at the change of shifts (roughly 3pm) • The meeting appeared formal and effective. With input from the waters and management. • There is teamwork present. Waiters tend to other tables when called by a customer. If a meal item or drink is awaiting collection, the first available waiter takes the item to the customer (irrespective of whether or not they have been serving the customer) • Waiter appear to have a good relationship with one another, • Waiters work together to set up and pack up the restaurant at the beginning and the end of day.
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?	Observed complaint: • A customer complained to their waiter that the alcoholic drink they received was watered down. The waiter apologised to the customer, and removed the drink and took it to the manager. The manager examined the drink, and went to the barman to investigate the problem. The manager then identified that there was nothing wrong with the drink, yet returned to the customer with a new drink, which he oversaw. The manager apologised and assured the customer that the drink would be free of charge. The customer however continued to complain. The manager attempted to satisfy the customer, by offering new drink, which the customer went on to accept.
Staff's general interaction with the customers.	• Waiters sometimes immediately approach a customer as they enter the restaurant, or there are times when the customer is left to search for a waiter and request a table. • Some waiters have a better attitude towards customers, than others however it is evident that in the eyes of the waiters, all customers are important and they immediately tend to the customer's needs. • Managers are always on the floor, and have hands on approach towards the customers. They check on most customers, however when the restaurant gets very busy the manager fails to visit every customer.

Restaurant C	
OBSERVATIONS	**COMMENTS**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)	• No physical evidence of the use of the 7 tools of quality by the employees. There are no checklists available in plain sight for the employees to refer to for a list of their duties. • Communication of duties appears to be verbal. Verbally communication of stock quantities between baristas and the managers.
Presence of work teams or groups. Staff meeting?	• No staff meeting was observed. • There is some level of teamwork present, but there isn't a great deal. Waiters do tend to other tables when called by a customer. However, on numerous occasions it was observed that drinks would wait at the bar for their waiter to collect them. Other waiters would walk past and would not take the drink if it was not meant for their own table. • Waiters do work together to set up and pack up the restaurant at the beginning and the end of day.
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?	Observed complaints: 1. A customer was forced to leave their seat to search for their waiter, as they had been neglected. The waiter had been inside talking to another waiter instead of checking on their customer sitting outside. The waiter apologised for neglecting the customer. 2. A customer upon leaving the restaurant approached the owner and complained about the price of a slice of cake, claiming that it was very expensive for the small portion size. The owner apologised for the small slice, and ensured that she would follow up on the matter with her staff to make sure that they are cutting the correct size slices. The customer left, unsatisfied. The owner then investigated and identified that the cake was correctly sliced and it wasn't the fault of the employee.
Staff's general interaction with the customers.	• Waiters seem to welcome customers with a smile and friendly faces, and are quick to offer a table as soon as they enter. From that point on their focus on the customer seems to fade, and they stand at the entrance to the kitchen and chat amongst themselves. This does not go for all the waiters, and some are more attentive than others. • Managers have a good relationship with their customers. They make an effort to remember as many of their names as possible, and always visit tables and make small talk with customers. Make them feel at home, very casual and relaxed environment.

Restaurant D	
OBSERVATIONS	**COMMENTS**
Evidence of the presence of the 7 tools of quality (Ishikawa diagrams, Pareto charts, check lists, Scatter plots, control charts, histograms)	• There is no evidence of the use of the seven tools of quality. • There is no evidence of the use of control chart of any form in the front of house operations. • If they are being used, they are *not* kept in plain sight. • There may be files and charts behind the bar or in the kitchen, but these areas were inaccessible. • No graphs of data or information on sales or number of complaints.
Presence of work teams or groups. Staff meeting?	• Employees seem to hang out and talk to one another. • The atmosphere amongst employees seems relaxed and friendly. • Upon opening, waiters work together to set up the restaurant (clean table, put salt& pepper on tables). Every waiter contributes, and they all work together. • Each waiter seems to be in charge of a specific duty, but they are all working together, and when one completes a duty, move on to help another. • There is a definite presence of communication between employees. • There doesn't appear to be a FORMAL implementation of work teams but there does appear to be a degree of teamwork. • There doesn't appear to have been a morning meeting amongst the waiters, to discuss duties. They all seem to just start with their duties, on their own.
Observe the procedures undertaken when a complaint occurs. What is done? Who do employees go to? Is there a hierarchy? How does the manager react to the situation?	A complaint was observed: • Upon collecting the plates from the customers, the waiter was informed by the customer that the yogurt was sour and tasted off. • The waitress apologised, and took the plate to the kitchen and informed the kitchen. • The waiter then went to the manager and informed him of the issue. • The manager then went to the kitchen to investigate the issue and check the yogurt in stock and confirmed that it was okay and not off. • Went back to the customer, and reported on his findings and explained that everything was fresh and apologised for the customer's displeasure. • Asked customer if they wanted anything else, but the customer declined.
Staff's general interaction with the customers.	• Smiling and happy waiters approach the customers. • Customers are usually greeted with a smile and a warm welcome and taken to a table, or chose their own table. • When seated the waiter immediately asks the customer of they would like to order something to drink. • Waiter always checks on the customer during their meal. • Managers are very hands on, and very involved in assisting the waiters and being part of the team. OVERALL: The employees seem to be attentive to their customers.

C.6. Method of validating Q8 with Q9

Firstly, the modal score values were identified for the questions for each restaurant.

	Restaurant A								
	Question 8						Question 9		
	The appearance of the restaurant's physical facilities is consistent with the type of service provided	When you have a problem, the restaurant is sympathetic and reassuring.	You do not receive prompt service from the restaurant's employees. (-)	The restaurant's employees of are very polite.	The restaurant's employees don't know what your needs are. (-)		The restaurant's quality of srvice is quite high	I would recommend the restaurant to my friends for this type of service quality.	I will chose this restaurant's service over others in the future.
RATING	7	7	7	7	7		7	7	7
	7	6	4	5	4		5	5	5
	7	6	2	6	2		6	6	6
	7	7	7	7	7		7	7	7
	7	7	7	7	1		7	7	5
	7	7	5	7	3		7	7	7
	7	6	6	6	7		7	6	6
	7	6	7	7	4		7	7	7
	7	7	1	7	1		7	7	7
	7	7	7	6	4		6	6	6
	7	6	6	6	7		6	6	6
	7	7	5	6	4		6	6	6
	6	6	5	5	3		4	5	3
	7	7	6	7	4		7	7	6
	6	4	6	7	4		7	7	7
	6	6	5	6	5		6	7	7
	7	6	6	7	6		6	6	5
	5	5	5	4	4		5	6	5
	6	6	4	7	4		4	7	4
	6	6	2	7	6		6	6	6
	4	4	5	3	5		3	2	1
	2	3	2	4	2		3	3	2
	6	7	7	7	6		6	7	6
	6	6	7	7	7		6	7	5
	4	5	1	6	4		7	6	7
	5	5	3	5	3		5	5	5
	7	7	7	7	7		7	7	6
	7	7	7	7	4		7	7	6
	7	6	2	6	2		6	6	6
	7	7	4	7	4		7	5	5
	7	7	4	7	4		7	6	4
	7	7	6	6	4		7	7	4
	6	6	6	6	6		6	6	6
	6	6	6	6	6		6	4	4
	6	6	6	6	6		7	7	6
	6	5	7	7	4		6	7	6
	7	7	6	7	4		7	7	6
	7	6	6	7	5		6	6	6
	7	7	6	6	6		6	7	7
	6	6	6	7	6		6	7	6
	7	5	7	7	7		7	7	6
	6	6	6	7	5		6	6	5
	7	6	6	6	6		7	7	7
	6	6	7	6	4		6	6	6
	6	6	2	6	6		6	6	6
	6	4	6	6	4		6	6	6
	7	7	1	7	1		7	7	7
MODE	**7**	**6**	**6**	**7**	**4**		**7 & 6**	**7**	**6**

	Restaurant B								
	Question 8						Question 9		
	The appearance of the restaurant's physical facilities is consistent with the type of service provided	When you have a problem, the restaurant is sympathetic and reassuring.	You do not receive prompt service from the restaurant's employees. (-)	The restaurant's employees of are very polite.	The restaurant's employees don't know what your needs are. (-)		The resturant's quality of srvice is quite high	I would recommend the restaurant to my friends for this type of service quality.	I will chose this restaurant's service over others in the future.
RATING	6	5	3	6	4		6	5	5
	7	7	5	7	4		6	6	6
	6	6	5	6	5		7	7	6
	7	6	5	6	5		6	7	6
	5	4	4	3	2		4	4	3
	7	4	5	4	4		6	6	4
	5	6	6	6	5		6	6	5
	7	5	7	7	7		6	7	7
	5	4	5	4	6		7	5	4
	4	5	2	6	6		5	5	3
	6	5	6	6	4		6	6	6
	7	6	4	6	5		6	6	5
	6	5	4	4	3		4	3	3
	5	5	7	6	5		5	6	3
	7	5	6	6	6		6	6	6
	6	6	6	6	4		6	6	6
	6	6	5	5	6		6	5	4
	6	6	7	6	7		6	6	6
	7	7	7	7	7		7	7	7
	7	4	3	7	3		5	5	4
	6	6	6	6	6		7	7	6
	6	6	6	6	4		6	6	5
	6	5	4	7	4		7	7	7
	6	6	6	4	5		6	6	6
	7	6	6	6	6		6	6	5
	5	5	3	5	3		7	6	5
	7	7	1	7	1		7	7	7
	7	5	4	5	3		5	6	5
	6	5	5	4	4		5	5	4
	6	5	3	5	5		5	5	3
	4	5	3	4	4		4	4	4
	7	7	7	7	7		7	7	7
	5	4	2	5	5		5	5	3
	5	5	2	6	5		4	4	3
	7	6	5	6	6		7	7	2
	6	6	6	6	6		6	6	6
	6	5	2	7	3		6	6	6
	7	6	6	7	6		7	6	6
	5	5	5	4	4		5	5	4
	6	5	5	5	6		5	5	4
	7	4	6	7	6		7	7	7
	4	5	5	4	5		6	4	4
	6	4	1	4	4		3	3	3
	6	6	5	5	6		6	5	4
	6	6	2	6	6		5	6	4
	7	7	7	7	6		7	7	4
	7	7	1	7	1		5	6	6
	4	5	6	3	5		5	3	3
	6	6	6	6	6		7	7	5
	7	6	2	7	2		7	7	7
MODE	**6**	**5**	**6**	**6**	**6**		**6**	**6**	**6**

	Restaurant C								
	Question 8						Question 9		
	The appearance of the restaurant's physical facilities is consistent with the type of service provided	When you have a problem, the restaurant is sympathetic and reassuring.	You do not receive prompt service from the restaurant's employees. (-)	The restaurant's employees of are very polite.	The restaurant's employees don't know what your needs are. (-)		The resturant's quality of srvice is quite high	I would recommend the restaurant to my friends for this type of service quality.	I will chose this restaurant's service over others in the future.
RATING	6	6	5	7	4		5	4	4
	6	7	2	7	6		6	6	6
	7	6	2	6	2		6	5	6
	7	7	1	7	1		7	7	7
	6	6	2	7	2		6	7	5
	6	4	2	6	4		6	6	5
	6	4	7	7	7		6	6	6
	5	5	3	6	2		5	6	5
	5	5	3	5	3		5	5	4
	7	7	1	2	7		7	7	7
	7	7	7	7	6		7	7	7
	5	4	6	6	5		5	4	2
	6	5	4	6	4		5	5	4
	6	6	6	7	6		7	6	6
	7	7	7	7	5		7	7	7
	6	6	6	6	6		6	6	6
	7	6	5	7	6		7	7	7
	7	7	7	7	7		6	7	5
	6	7	6	6	7		6	7	6
	5	6	7	7	7		7	7	7
	7	7	7	7	7		7	7	7
	6	6	6	7	5		7	7	6
	6	4	5	5	2		6	5	4
	5	4	4	5	4		4	4	4
	6	4	6	7	6		6	6	4
	7	1	4	4	4		6	5	4
	7	4	4	6	3		6	6	4
	3	5	6	7	6		7	7	7
	7	4	4	7	6		5	7	6
	7	6	6	7	5		7	7	7
	7	7	7	7	7		7	7	7
	6	6	6	6	7		7	7	6
	6	6	5	6	4		5	5	5
	7	6	1	7	6		7	7	6
	6	6	6	5	2		7	7	5
	3	6	6	6	2		7	7	5
	6	7	7	6	6		6	6	6
	6	4	2	7	6		6	7	6
	7	7	5	7	5		7	7	6
	7	7	7	7	1		7	7	6
	6	6	6	6	6		6	6	5
	6	6	6	6	6		6	6	6
	6	7	6	6	4		6	6	6
	6	6	6	5	5		5	5	4
	6	7	7	7	7		6	6	5
	7	7	7	7	7		7	7	7
	3	6	4	7	6		6	5	4
MODE	**6**	**6**	**6**	**7**	**6**		**6**	**7**	**6**

	Restaurant D							
	Question 8						Question 9	
	The appearance of the restaurant's physical facilities is consistent with the type of service provided	When you have a problem, the restaurant is sympathetic and reassuring.	You do not receive prompt service from the restaurant's employees. (-)	The restaurant's employees of are very polite.	The restaurant's employees don't know what your needs are. (-)	The resturant's quality of srvice is quite high	I would recommend the restaurant to my friends for this type of service quality.	I will chose this restaurant's service over others in the future.
RATING	7	6	3	7	2	6	7	6
	7	7	6	7	4	7	7	6
	4	4	5	5	3	4	4	3
	5	4	5	5	4	5	6	5
	6	6	5	6	2	6	5	5
	7	7	7	6	3	6	6	5
	4	6	1	5	4	5	4	4
	6	6	3	5	6	6	6	4
	6	7	4	7	5	5	5	4
	7	5	6	7	5	7	7	6
	6	6	6	7	6	7	6	6
	6	6	6	7	6	6	6	6
	3	4	6	6	5	5	2	3
	6	6	6	7	4	6	4	4
	6	6	6	7	4	7	6	6
	6	7	7	7	6	7	6	6
	5	7	7	7	7	7	7	6
	7	7	7	7	7	7	7	5
	6	6	5	6	5	5	5	4
	4	4	6	5	4	4	3	3
	7	5	2	7	7	7	7	6
	7	6	3	5	1	4	6	4
	6	6	3	6	6	5	5	4
	5	4	3	5	5	5	5	5
	6	6	6	6	6	6	6	6
	6	5	5	6	5	6	6	4
	6	6	6	6	6	6	6	4
	7	4	3	5	3	4	1	1
	6	7	7	7	6	7	7	6
	7	6	7	6	5	6	6	6
	6	6	6	6	6	6	6	6
	5	3	2	3	3	3	2	2
	7	3	2	5	3	3	3	2
	6	5	3	5	5	5	4	3
	6	4	3	4	2	2	2	2
	4	4	3	6	4	5	4	3
	7	7	7	7	5	6	7	5
	7	7	6	7	5	6	7	5
	6	6	7	6	6	5	5	4
	7	7	4	6	6	7	7	7
	6	6	3	6	2	6	6	5
	6	6	2	5	6	5	6	6
	6	6	7	6	6	6	5	4
	6	6	6	6	5	6	6	5
	6	7	6	6	7	7	7	7
	6	6	6	7	6	6	7	5
	6	4	5	6	4	6	5	4
	6	6	6	6	6	6	7	6
	6	5	2	6	4	5	6	5
	7	6	6	6	4	7	6	5
MODE	**6**	**6**	**6**	**6**	**6**	**6**	**6**	**6**

The mode values for the questions for each restaurant were collected and placed in a single table, as shown below.

	Question 8						Question 9			
	MODE SCORE									
Restaurant	The appearance of the restaurant's physical facilities is consistent with the type of service provided.	When you have a problem, the restaurant is sympathetic and reassuring.	You do not receive prompt service from the restaurant's employees. (-)	The restaurant's employees of are very polite.	The restaurant's employees don't know what your needs are. (-)	***Mode***	The restaurant's quality of srvice is quite high.	I would recommend the restaurant to my friends for this type of service quality.	I will chose this restaurant's service over others in the future.	***Mode***
A	7	6	6	7	4	**6 & 7**	6 & 7	7	6	**6 & 7**
B	6	5	6	6	6	**6**	6	6	6	**6**
C	6	6	6	7	6	**6**	6	7	6	**6**
D	6	6	6	6	6	**6**	6	6	6	**6**