

**THE INFLUENCE OF SERVICE QUALITY DIMENSIONS ON  
CUSTOMER SATISFACTION AT THE PORT ELIZABETH  
INTERNATIONAL AIRPORT**

**BY**

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THE INFLUENCE OF SERVICE QUALITY DIMENSIONS ON  
CUSTOMER SATISFACTION AT THE PORT ELIZABETH  
INTERNATIONAL AIRPORT

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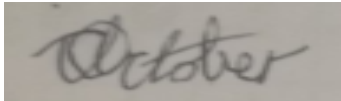
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Supervisor: Dr D. Ferreira

## DECLARATION

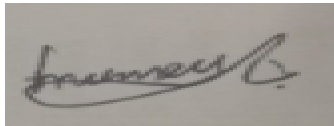
We, Adrian October, s210085665 and Adeso Tamajong Frunueh, s216974623, hereby declare that:

- The content of this treatise entitled “The Influence of Service Quality Dimensions on Customer Satisfaction at the Port Elizabeth International Airport” is our own work;
- All the sources used in the study have been acknowledged and documented by providing references
- The treatise topic has never been previously submitted for assessment or completion of any qualification to any University



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ADRIAN OCTOBER



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ADESO TAMAJONG FRUNUEH

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## **ABSTRACT**

Airport services are of critical importance to the economy of many regions globally as airports can influence the employment, tax and gross domestic product (GDP) within these regions. In 2017, the Port Elizabeth international Airport (PEIA) contributed 0.1% to the regional GDP (R236 million). The airport also created about 418 jobs in Port Elizabeth, with an overall income contribution of R74 million to the employment sector. The PEIA handles over 1.2 million passengers annually and covers over 60 000 scheduled flights. The PEIA is considered an international airport as it meets all the requirements and provides all the services that international airports are required to have or provide. It is therefore important that the PEIA ensures that its customers are satisfied with the services that they provide.

The primary aim of this study is to empirically establish which service quality dimensions influence customer satisfaction at the PEIA. This study investigated how the independent variables (service quality dimensions) influence customer satisfaction (dependent variable). From the extensive literature review, one set of seven hypotheses were constructed to test the statistically significant relationship between the seven service quality dimensions and customer satisfaction.

The study was carried out using a quantitative research approach. This approach required the perception of various customers who have been to the PEIA. A survey was conducted through the use of a questionnaire. The survey was conducted amongst 203 domestic, and international tourists. A convenience sampling approach was utilised in the collection of data.

To determine the validity of the items in the questionnaire, an exploratory factor analysis was conducted, followed by a Cronbach's alpha tests which was conducted on each valid construct to confirm reliability. Upon carrying out the above, the Pearson product-moment correlation coefficients were utilised to measure the relationship between the service quality dimensions and customer satisfaction. The latter presented 8 strong, 15 moderate and 5 weak correlations amongst the dependent and independent variables. A multiple

regression analysis was conducted to determine which of the hypotheses are supported or rejected based on the findings of the questionnaire. This test revealed four statistically significant relationships between service quality dimensions (tangibility, assurance, empathy and convenience), and customer satisfaction at the PEIA.

As per the multiple regression results, tangibility, assurance, empathy and convenience are essential service quality dimension that influences customer satisfaction at the PEIA. For tangibility, it is suggested that the PEIA ensures that wayfinding at the airport is simple. Furthermore, the PEIA should make use of the Root Cause Analysis in determining what is the cause of equipment failure at the airport and try thereafter to avoid or eliminate such items causing equipment failure. For assurance, it is recommended that PEIA provides its employees with appropriate programmes such as customer service training and airport orientation. The PEIA should also employ methods to monitor the performance of its employees such as mystery shopping which shall be used to identify and address areas of weaknesses. In addition, the PEIA, should also provide rewards and incentives to its airport employees as it can retain quality employees who shall provide quality services to customers hence improving their satisfaction levels.

Since empathy is an essential service quality dimension that influences customer satisfaction at the PEIA, it is thus suggested that the PEIA acquires adequate and up-to-date technology for security screening, and also avoid the use of security screening measures that make the customers feel humiliated. PEIA management should also provide customers with feedback or information at all time with regards to important aspects such as flight delays through emails or SMS. The staff at the airport should also be provided with professional training pertaining to proper security protocol to keep its customers safe and secure. Convenience is another service quality dimension that is essential for customer satisfaction at the PEIA. It is hence suggested that the PEIA opens a variety of stores or restaurants to avoid crowding, and have more information screens for customers to use in checking in. The financial service providers (Absa, FNB, Nedbank and Standard Bank) should also open branches at the airport.

The study was limited to quantitative data although the integration of both quantitative and qualitative research has become increasingly common in contemporary research. Although the study may have benefited from qualitative insights, the exploratory nature of the hypothesised model did not required the generation of in-depth qualitative data for establishing an explanatory framework.

This study developed a validated and reliable model which can be used as a framework for further testing nationally as well as internationally by other researchers to increase customer satisfaction at airports. This in turn can lead to higher GDP contributions from these airports. The recommendations in the study are provided for the PEIA, and other parties which have a role in providing services to customers at the airport such as the financial service providers to provide services with highest quality possible in enabling customer satisfaction.

**KEYWORDS: Service Quality, Service Quality Dimensions, Customer Satisfaction, Airports.**

## **TABLE OF CONTENTS**

	<b>Page</b>
<b>DECLARATION</b>	<b>i</b>
<b>ACKNOWLEDGEMENTS</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>xiii</b>
<b>LIST OF FIGURES</b>	<b>xiv</b>

## **CHAPTER ONE**

### **INTRODUCTION AND BACKGROUND TO THE STUDY**

<b>1.1</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>1.2</b>	<b>PROBLEM STATEMENT</b>	<b>2</b>
<b>1.3</b>	<b>RESEARCH OBJECTIVES</b>	<b>4</b>
<b>1.4</b>	<b>CLARIFICATION OF CONCEPTS</b>	<b>5</b>
<b>1.4.1</b>	<b>Customer Satisfaction</b>	<b>5</b>
<b>1.4.2</b>	<b>Service Industry</b>	<b>5</b>
<b>1.4.3</b>	<b>Airports</b>	<b>6</b>
<b>1.5</b>	<b>RESEARCH QUESTIONS, PROPOSED MODEL AND HYPOTHESES</b>	<b>7</b>
<b>1.5.1</b>	<b>Research Question</b>	<b>8</b>
<b>1.5.1</b>	<b>Research Hypotheses</b>	<b>8</b>



<b>1.6</b>	<b>RESEARCH DESIGN AND METHODOLOGY</b>	<b>9</b>
<b>1.6.1</b>	<b>Secondary Research</b>	<b>9</b>
<b>1.6.2</b>	<b>Empirical Research</b>	<b>10</b>
1.6.2.1	Research Design, Paradigm and Methodology	10
1.6.2.2	Population, Sampling and Data Collection	11
1.6.2.3	Design of the Measuring Instrument	12
1.6.2.4	Data Analysis	13
<b>1.7</b>	<b>SCOPE OF THE STUDY</b>	<b>14</b>
<b>1.8</b>	<b>STRUCTURE OF THE RESEARCH</b>	<b>15</b>

## **CHAPTER TWO**

### **OVERVIEW OF THE TOURISM INDUSTRY AND THE SERVICE INDUSTRY**

<b>2.1</b>	<b>INTRODUCTION</b>	<b>17</b>
<b>2.2</b>	<b>OVERVIEW OF THE TOURISM INDUSTRY</b>	<b>17</b>
<b>2.2.1</b>	<b>Accommodation Sector</b>	<b>18</b>
<b>2.2.2</b>	<b>Adventure Tourism and Recreation Sector</b>	<b>18</b>
<b>2.2.3</b>	<b>Attraction Sector</b>	<b>18</b>
<b>2.2.4</b>	<b>Food and Beverage Sector</b>	<b>19</b>
<b>2.2.5</b>	<b>Tourism Service Sector</b>	<b>19</b>
<b>2.2.6</b>	<b>Transportation Sector</b>	<b>20</b>
2.2.6.1	Air Transport	20
2.2.6.2	Road Transport	20

2.2.6.3	Water Transport	21
2.2.6.4	Rail Transport	21
<b>2.2.7</b>	<b>Events and Conference Sector</b>	21
<b>2.2.8</b>	<b>Travel Trade Sector</b>	22
<b>2.3</b>	<b>CHARACTERISTICS OF A SERVICE PRODUCT</b>	22
2.3.1	Intangibility	22
2.3.2	Inseparability	23
2.3.3	Heterogeneity	23
2.3.4	Perishability	24
<b>2.4</b>	<b>SERVICE QUALITY</b>	24
<b>2.5</b>	<b>SERVICE QUALITY DIMENSIONS</b>	25
2.5.1	Reliability	25
2.5.2	Tangibility	28
2.5.3	Responsiveness	31
2.5.4	Assurance	33
2.5.5	Empathy	36
2.5.6	Convenience	37
2.5.7	Complaint Handling	38
<b>2.6</b>	<b>CUSTOMER SATISFACTION</b>	41
<b>2.7</b>	<b>SUMMARY AND CONCLUSION</b>	42

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

<b>3.1</b>	<b>INTRODUCTION</b>	<b>45</b>
<b>3.2</b>	<b>RESEARCH DESIGN</b>	<b>45</b>
<b>3.3</b>	<b>RESEARCH APPROACH</b>	<b>45</b>
<b>3.3.1</b>	<b>Quantitative Research</b>	<b>46</b>
<b>3.3.2</b>	<b>Qualitative Research</b>	<b>46</b>
<b>3.3.3</b>	<b>Selection of Research Approach to Use</b>	<b>46</b>
<b>3.4</b>	<b>RESEARCH DESIGN TYPOLOGIES</b>	<b>47</b>
<b>3.4.1</b>	<b>Exploratory Research</b>	<b>47</b>
<b>3.4.2</b>	<b>Descriptive Research</b>	<b>47</b>
<b>3.4.3</b>	<b>Casual Research</b>	<b>48</b>
<b>3.4.4</b>	<b>Selection of Research Design Typologies to Use</b>	<b>48</b>
<b>3.5</b>	<b>RESEARCH METHODOLOGY</b>	<b>48</b>
<b>3.5.1</b>	<b>Data Collection</b>	<b>49</b>
3.5.1.1	Secondary Data Collection	49
3.5.1.2	Primary Data Collection	50
a)	Population, sample frame and sample	50
b)	Sampling techniques	51
c)	Selection of sampling technique to use	53
<b>3.5.2</b>	<b>Research Instrument</b>	<b>54</b>
3.5.2.1	Open Ended Questions	55

3.5.2.2	Closed Ended Questions	55
<b>3.5.3</b>	<b>Format of Questionnaire</b>	<b>56</b>
<b>3.5.4</b>	<b>Pretesting of the Questionnaire</b>	<b>59</b>
<b>3.5.5</b>	<b>Questionnaire Administration</b>	<b>61</b>
<b>3.5.6</b>	<b>Data Analysis</b>	<b>62</b>
<b>3.5.7</b>	<b>Validity</b>	<b>62</b>
3.5.7.1	Factor Analysis	62
<b>3.5.8</b>	<b>Reliability</b>	<b>64</b>
3.5.8.1	External Reliability	64
3.5.8.2	Internal Consistency reliability	64
<b>3.5.9</b>	<b>Inferential Statistics</b>	<b>65</b>
3.5.9.1	Pearson Product-moment Correlation	66
3.5.9.2	Multiple Regression	67
<b>3.6</b>	<b>ETHICAL CONSIDERATIONS</b>	<b>67</b>
<b>3.7</b>	<b>SUMMARY</b>	<b>68</b>

## **CHAPTER FOUR**

### **EMPIRICAL RESEARCH FINDINGS**

<b>4.1</b>	<b>INTRODUCTION</b>	<b>70</b>
<b>4.2</b>	<b>DEMOGRAPHIC INFORMATION</b>	<b>70</b>
<b>4.3</b>	<b>VALIDITY AND RELIABILITY OF THE MEASURING INSTRUMENT</b>	<b>72</b>

<b>4.3.1</b>	<b>Validity and Reliability of the Service Quality Dimension (Independent Variables)</b>	<b>73</b>
4.3.1.1	Tangibility	74
4.3.1.2	Reliability	75
4.3.1.3	Responsiveness	76
4.3.1.4	Assurance	77
4.3.1.5	Empathy	78
4.3.1.6	Complaint Handling	79
4.3.1.7	Convenience	80
<b>4.3.2</b>	<b>Validity and Reliability of the Instruments for the Dependent Variable</b>	<b>81</b>
4.3.2.1	Customer Satisfaction	82
<b>4.4</b>	<b>OPERATIONALISATION</b>	<b>83</b>
<b>4.5</b>	<b>DESCRIPTIVE STATISTICS</b>	<b>84</b>
<b>4.6</b>	<b>INFERENTIAL STATISTICS</b>	<b>85</b>
<b>4.6.1</b>	<b>Pearson Product-moment Correlation Coefficients</b>	<b>86</b>
<b>4.6.2</b>	<b>Multiple Regression Analysis</b>	<b>89</b>
<b>4.7</b>	<b>SUMMARY</b>	<b>90</b>

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

<b>5.1</b>	<b>INTRODUCTION</b>	<b>92</b>
<b>5.2</b>	<b>OVERVIEW OF CHAPTERS</b>	<b>92</b>

<b>5.3</b>	<b>HOW OBJECTIVES OF THIS STUDY WERE MET</b>	<b>94</b>
<b>5.4</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b>	<b>96</b>
<b>5.4.1</b>	<b>Conclusions and Recommendations of Statistically Significant Relationships for Customer Satisfaction</b>	<b>96</b>
5.4.1.1	Tangibility	96
5.4.1.2	Assurance	97
5.4.1.3	Empathy	98
5.4.1.4	Convenience	100
<b>5.5</b>	<b>CONTRIBUTION TO THE STUDY</b>	<b>101</b>
<b>5.6</b>	<b>SELF-REFLECTION</b>	<b>102</b>
<b>5.7</b>	<b>LIMITATIONS OF THE STUDY</b>	<b>103</b>
<b>5.8</b>	<b>RECOMMENDATIONS FOR FUTURE STUDIES</b>	<b>103</b>
<b>5.9</b>	<b>CONCLUDING REMARKS</b>	<b>104</b>
	REFERENCES	105
	ANNEXURE 1	117
	ANNEXURE 2	121
	ANNEXURE 3	123

## LIST OF TABLES

	<b>Page</b>
Table 3.1: Service quality dimensions	57
Table 3.2: Customer satisfaction	59
Table 3.3: Cronbach's alpha values of the pilot study	37
Table 3.4: Coefficient alphas ranging guideline	65
Table 3.5: Correlation coefficient interpretation guideline	66
Table 4.1: Demographic information of the respondents	71
Table 4.2: Factor matrix for service quality dimensions	73
Table 4.3: Validity and reliability of the Tangibility construct	74
Table 4.4: Validity and reliability of the Reliability construct	75
Table 4.5: Validity and reliability of the Responsiveness construct	76
Table 4.6: Validity and reliability of the Assurance construct	77
Table 4.7: Validity and reliability of the Empathy construct	78
Table 4.8: Validity and reliability of the Complaint Handling construct	80
Table 4.9: Validity and reliability of the Convenience construct	81
Table 4.10: Factor matrix for the dependent variable	82
Table 4.11: Validity and reliability of the Customer Satisfaction construct	82
Table 4.12: Operationalisation of the independent and dependent variables	84
Table 4.13: Descriptive statistics of the service quality dimensions and dependent variables	85
Table 4.14: Correlation coefficient interpretation guidelines	86

Table 4.15:	Correlation matrix of the dependent and independent variables	87
Table 4.16:	Multiple regression results for the service quality dimensions influencing customer satisfaction	89
Table 5.1:	How the study objectives were met	94
Table 5.2:	How the methodological objectives were met	95

## LIST OF FIGURES

	<b>Page</b>
Figure 1.1:	Proposed hypothesised model of the influence of service quality dimensions on customer satisfaction
	7
Figure 3.1:	Sampling techniques
	10
Figure 4.1:	Summary of the statistical significant results
	90



# **CHAPTER ONE**

## **INTRODUCTION AND BACKGROUND TO THE STUDY**

### **1.1 INTRODUCTION**

Airports are of critical importance to the economy of many regions globally, as airports can influence employment, tax base and gross domestic product (GDP) within these regions (Luke 2010:122). According to Chen, Batchuluun and Batnosan (2015:219), in 2012, the global market for airport services was above \$102 billion, recording a 3% annual growth for the last four years. In 2017, the Port Elizabeth International Airport (PEIA) contributed R236 million to the GDP, which contributes 0.1% to the regional GDP. The airport also created about 418 jobs in the province with an overall income contribution of R74 million for workers in the regional sector in 2017 (Rnews 2018:1). Thus, providing satisfactory services to customers are becoming a pressing issue, hence, the airport sector and its physical environment are gaining more attention (Moon, Yoon & Han 2015:2).

The PEIA is known as the ten-minute airport as it is situated less than ten minutes from the main city centre. The airport currently handles over 1.2 million passengers annually and covers over 60,000 scheduled flights with approximately 800 tons of cargo. The PEIA is considered an international airport because it provides a fundamental retail area as well as a fully compliant international arrivals and departures terminal (Airports.co.za 2019a:1). The airport provides a variety of services which include restaurants, clothing shops, electronic retailers and a pharmacy. PEIA further provides several facilities such as postage services, banking, conferencing, facilities for the disabled, a chapel and prayer rooms, restrooms, telephones and viewing decks (Airports.co.za 2019b:1).

According to Al-Refaie, Fouad and Eteiw (2013:642), customer satisfaction refers to situation where a customer makes a comparative decision regarding an industry or the industry's employees based on the service quality provided by this industry or employees when customer met or came across them. It is a key concept in marketing and considered a crucial objective for service marketing.

The importance of customer satisfaction cannot be overstated as the customer satisfaction levels provided by the airport is key for the airport management to understand their customers and design an appropriate marketing strategy (Park & Jung 2012:353).

In the service industry retaining customers is of greater importance than attracting new customers (Kim & Lee 2011:235). There is fierce competition among airports to attract business and get more airlines to be located and functioning in their airports. The quality of customer service provided could be an important factor which stimulates airlines to conduct business in an airport. Handling customer complaints and implementing plans proactively to avoid them are issues that are of great importance for the overall success of an organisation (Arif, Gupta & Williams 2013:1).

The problem statement to this study will be presented in the following section, followed by the purpose of the study and the definition of several key concepts. The research objectives will be presented thereafter. The proposed hypothesised model, hypotheses and research questions will be elaborated on. The research design and methodology, the scope and demarcation, as well as the significant of the study will be highlighted. Lastly, the structure of the research will be discussed.

## **1.2 PROBLEM STATEMENT**

Customer satisfaction has an influence on both the airport and the airlines (Gheorghe, Sebea & Stoenescu 2016:89). Customer satisfaction has a strong influence on the tourism industry as it affects the decision of the tourist regarding the tourism destination. The airport represents a passenger's first point of contact with the foreign country and shall hence play a vital role on the passenger's (who also is a customer) view about the tourism destination. Thus, the airports and the vital role it plays on customers shows the impact of customer satisfaction and shall have a direct and indirect influence on the economy (Gheorghe *et al.* 2016:89). With direct influence the unique or particular target is specifically aimed or touched by the sector or business for instance strengthening or weakening the capital of the economy. Whereas with indirect influence, the target is

reached by influencing the third party who are the customers. This can be done by encouraging more individuals to use airports (McClimans 2011:1).

According to Bezerra and Gomes (2015:85), non-aeronautical revenues are also important for the sustainability of the airport. This has led to a rising concern with the marketing of retail areas within airport terminals as customers who visit the airport can use these retail areas to wait and do their last minute shopping. Understanding passenger perceptions of airport service quality (ASQ) is of great importance for customer satisfaction in the airport. In the airport sector, service quality measures based on the customer's perception have mostly been used in measuring operational performance and creating a standard for the operations.

Airports face an enormous challenge in addressing the needs of customers as a result of the diverse culture and countries of the customers. Each customer may have a very different view or opinion of the service quality at an airport depending on their country of origin (Gheorghe *et al.*, 2016:92). For customer satisfaction to be ameliorated and improved upon, it is necessary that the complex nature of airport services is understood, to determine the quality attributes to be improved and the factors that lead to the customers' satisfaction (Gheorghe *et al.*, 2016:92).

According to Ali, Kim and Ryu (2016:214), a critical determinant of customer retention and positive responses by the customers is the physical environment of the service industry. Hence, despite the different services provided by airports, the main purpose of these services is not focused on customers but rather on the airports themselves. Airports, in general, do not measure the needs of the customers but rather their service performance. Studies have been conducted on service performance, but, not on the perceptions and needs of customers (Abourefaei, Mohamed & Akhras 2015:1). Various researchers (Fodness & Murray 2007:494; Adeniran & Binuyo 2016:128) observed that there exist limited information or results on the view customers have with regard to the service quality at the airports.

The problem statement of this research is that there is little known about the influence of service quality dimensions on customer satisfaction at the PEIA. This led to the problem in question: What are the influences of service quality dimensions on customer satisfaction at the PEIA?

### **1.3 RESEARCH OBJECTIVES**

The primary objective of this study is to identify the influence of service quality dimensions on customer satisfaction at the PEIA. In order to achieve the primary objectives of this study, the following secondary objectives have been formulated:

- To describe the current customer satisfaction at the PEIA.
- To establish the factors that influence customer satisfaction at the PEIA.
- To develop a well-informed customer satisfaction model that the PEIA can employ to enhance its performance.

In order to achieve the above-mentioned primary and secondary objectives, the following methodological objectives have been identified:

- To undertake a theoretical investigation into the influence of service quality dimensions on customer satisfaction.
- To undertake a hypothesised model that reflects the relationship between the independent variables (Tangibility, Reliability, Responsiveness, Assurance, Empathy, Convenience and Complaint Handling) and the dependent variable (Customer Satisfaction), from which the hypotheses will be suggested;
- To determine the appropriate research methodology to address the identified research problem and research objectives;
- To develop an appropriate measuring instrument that shall be used to empirically test the influence of the independent variables on the dependent variables;
- To source primary data from a pre-determined sample of customers who have ever visited the PEIA and to statistically analyse the data, as well as test the proposed hypotheses; and

- To provide conclusions and recommendations based on the finding of this research, which could assist the PEIA in ultimately improving their service quality by adopting the appropriate customer satisfaction model.

## **1.4 CLARIFICATION OF CONCEPTS**

With the study focusing on the influence of service quality dimensions on customer satisfaction at the PEIA, clear definitions of these terms are presented below.

### **1.4.1 Customer Satisfaction**

Angelova and Zekiri (2011:238) define customer satisfaction as the negative or positive feelings that a person experiences when comparing a product or a service perceived performance (or outcome) in relation to his or her expectations. Customer satisfaction is defined as the overall perception that a customer has of a specific service provider, or a negative or positive feeling that a customer experiences in relation to what they anticipate and what they receive, regarding the fulfilment of some need, goal or desire (Angelova *et al.* 2011:238). Angelova *et al.* (2011:239) defines customer satisfaction as the psychological state of a customer which originates from the prior expectations of the customer and the resulting positive or negative emotions after the consumption experience.

In this study, customer satisfaction refers to the degree to which a product or services meets the prior expectations of the customers.

### **1.4.2 Service Industry**

A service industry refers to an industry that has most of its attention pointed towards satisfying customers. This industry can only grow or develop by focusing on the customers (Kim & Kim 2016:88). According to Spacey (2018:1), a service industry can be defined as any industry which has the primary aim of producing intangible services and providing value such as customer services, management, advice, knowledge and many others. Altinay and Poudel (2016:1) define the service industry as an industry which

provides intangible goods and end products to customers and businesses in the tertiary sector of the economy.

In this study, a service industry refers to an industry which provides intangible services value and end products to customers.

### **1.4.3 Airports**

According to Polk and Bilotkach (2013:32), airports are multi-product companies which offer a variety of services, with the most important services including providing infrastructure for take-off and landing of aircrafts carrying cargo and passengers, ground-handling services, providing central infrastructure to airlines, rental space, or supply of parking and shopping facilities for end-customers at the airport. Lloyd (2002) IN Kellerman (2008:162) state that airports are located on an expansive patch of land on the outskirts of major cities, sometimes also serving as hubs, and thus facilitating additional land-uses in and around them. As such, airports may be seen as theme parks that are made up of various retailing facilities, while at the same time serving as potential gates of entry at border-crossings, constituting extra-terrestrial points, located in the heart of countries. In addition, an 'airport can be defined 'in the law as an any area of land or water used or intended for landing or take-off of aircraft including appurtenant area used or intended for airport buildings, facilities, as well as rights of way together with the buildings and facilities' (Faa.gov 2018:1).

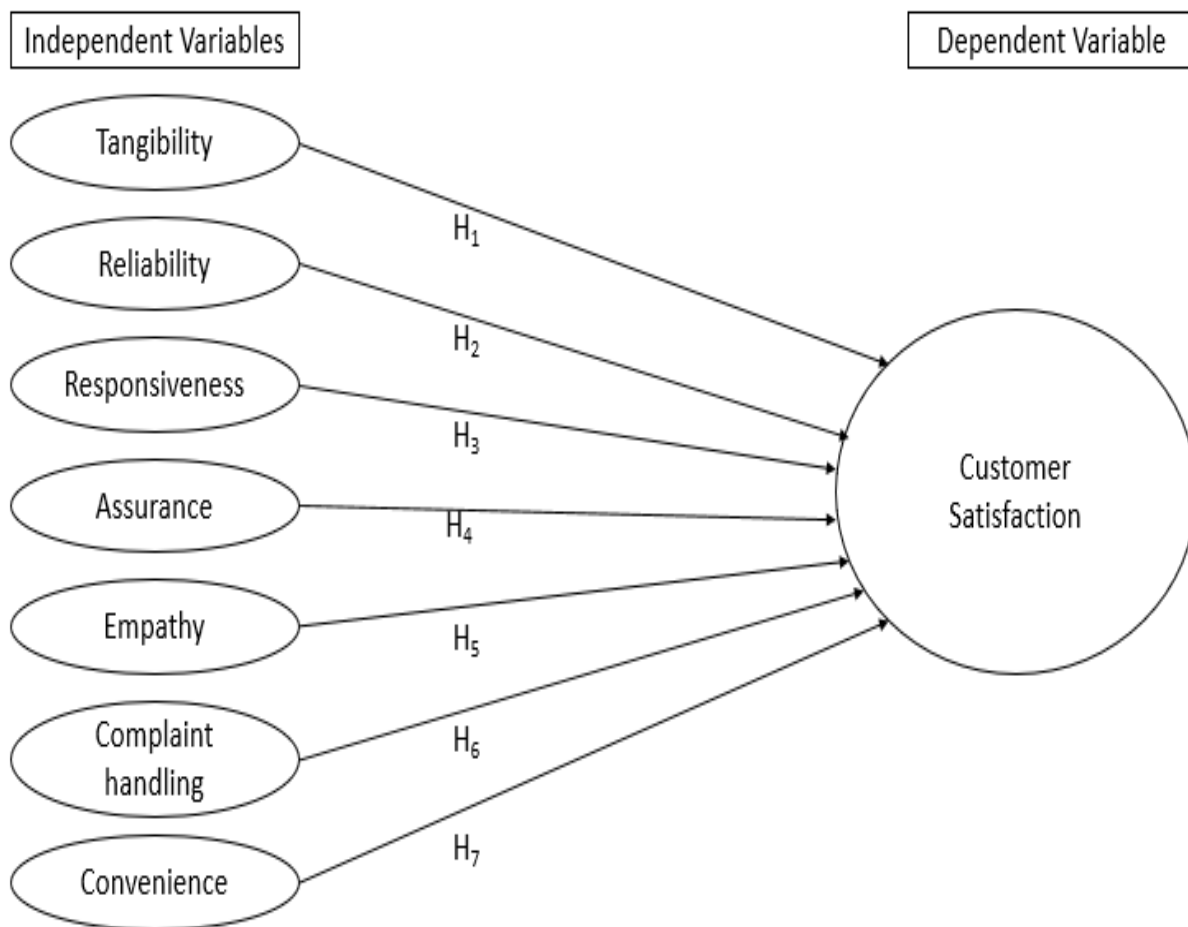
In this study, airports are multi-product companies which provide mostly intangible services to airlines and diverse customers and serves as a station for landing and taking off of aeronautical vehicles.

In the next section the research question and proposed hypothesised model will be presented.

## 1.5 RESEARCH QUESTIONS, PROPOSED MODEL AND HYPOTHESES

The primary objective of the study is to identify the influence of service quality dimensions on customer satisfaction at the PEIA. The following hypothesised model was developed using the key factors identified through the secondary research objectives. The proposed hypothesised model is illustrated in Figure 1.1.

**Figure 1.1: Proposed hypothesised model of the influence of service quality dimensions on customer satisfaction**



Source: Researchers' own construction

The proposed hypothesised model identifies the following service quality dimension as the independent variables for this study, namely Tangibility, Reliability, Responsiveness,

Assurance, Empathy, Complaint handling and Convenience, while the *Customer Satisfaction* forms the dependent variable in this study.

### **1.5.1 Research Question**

Based on the problem statement, primary, secondary and methodological objectives of the study, as well as the aforementioned hypothesised framework, the following research questions are posed:

- a. What is the current customer satisfaction at the PEIA?
- b. What are the factors that influence customer satisfaction?
- c. Is there a customer satisfaction model that can be used at the PEIA to enhance performance?
- d. What are the factors that shall support the implementation of the proposed model?
- e. Are there any setbacks that can prohibit proper implementation of the proposed model?

### **1.5.2 Research hypotheses**

Various hypotheses relating to the service quality dimensions (independent variables) and customer satisfaction (dependent variables) have been framed, from the problem statement and primary objectives of this study. Constructed on the literature review, the following hypotheses were raised to determine if there exists an empirical relationship between the service quality dimensions (tangibility, reliability, responsiveness, assurance, empathy, complaint handling and convenience) and the customer satisfaction at the PEIA, as indicated in Figure 1.1:

- H<sub>1</sub>: Service tangibility influences customer satisfaction at the PEIA.
- H<sub>2</sub>: Service reliability influences customer satisfaction at the PEIA.
- H<sub>3</sub>: Service responsiveness influences customer satisfaction at the PEIA.
- H<sub>4</sub>: Service assurance influences customer satisfaction at the PEIA.
- H<sub>5</sub>: Service empathy influences customer satisfaction at the PEIA.
- H<sub>6</sub>: Service complaint handling influences customer satisfaction at the PEIA.
- H<sub>7</sub>: Service convenience influences customer satisfaction at the PEIA.



The hypotheses listed above shall be investigated with the main aim of determining if there exists a relationship between the dependent variables (customer satisfaction) and the independent variables (tangibility, reliability, responsiveness, assurance, empathy, complaint handling and convenience). A thorough analysis of the relationships that exist between the independent and dependent variables shall help in providing further recommendations to the PEIA on how they can improve their customer satisfaction through service quality dimensions.

The next section will discuss the research design and methodology.

## **1.6 RESEARCH DESIGN AND METHODOLOGY**

To successfully address the research objectives of this study, the research was divided into two categories, namely secondary and primary research.

### **1.6.1 Secondary Research**

Secondary data is data that is not directly gathered but which is already available. In other words, secondary data is data that has already been gathered and recorded by someone else, other than the user, for an alternative reason than the current research (Boone & Kurtz 2015:316; Collis & Hussey 2014:59; Struwig & Stead 2013:82). Sources of secondary data include annual reports, journal articles, newspaper articles, government publications and business reports (Struwig *et al.*, 2013:82).

In order to achieve the primary objective of this study, the secondary research of this study consisted of an extensive literature review aimed at identifying and describing the nature and influence of service quality dimensions on customer satisfaction at airports. The secondary research of this study was conducted using a variety of relevant textbooks and well-known journal articles. In addition, the library facilities available at the Nelson Mandela University were used to access national and international databases, such as Emerald, EBSCOhost, Sabinet, which were consulted to identify preceding research on the influence of service quality dimensions on customer satisfaction. The relevant

secondary sources obtained and used formed a basis for the proposed hypotheses framework shown in Figure 1.1.

### **1.6.2 Empirical Research**

The primary research of this study comprised of four subsections, namely an overview of the selected research design and paradigm, sampling techniques, as well as the data collection methods which were deemed most appropriate for the study was provided. Subsequently, the design of the measuring instrument, as well as the data analysis methods which were used during the study was presented.

#### **1.6.2.1 Research Design, Paradigm and Methodology**

A research paradigm provides a framework which is used in guiding the way research should be carried out based on the beliefs and assumptions made by individuals about the world and the nature of knowledge (Collis *et al.* 2014:43; Greener 2008:34; Johnson & Christensen 2014:31; Weaver & Olson 2006:460). According to several researchers (McGregor & Murnane 2010:420; Ritchie, Lewis, Nicholls & Ormston 2013:5) research paradigm can either be positivistic, which is often associated with a quantitative methodology or interpretivistic, which is often associated with a qualitative methodology.

A positivistic research paradigm relies on the assumptions that communal truth is singular and, impartial and the act of investigating does not affect it. It involves a deductive method with the aim of providing clarifying theories to help in understanding social phenomena (Collis *et al.*, 2014:43; Struwig *et al.*, 2013:5). According to Collis *et al.* (2014:43), positivistic research paradigm aims to discover and explain theories that originate from empirical research. Quantitative research methodology is a form of research process where the data collected is in numerical form (Collis *et al.*, 2014:44). According to various researchers (Cooper & Schindler 2014:146; Struwig *et al.*, 2013:3), quantitative research is to test specific hypotheses and examine specific relationships between the dependent and independent variables.

According to Struwig *et al.* (2013:6), there exist various approaches to conduct quantitative research, including exploratory, descriptive, experimental and quasi-experimental. Bryman and Bell (2011:16) indicate that interpretivism represents the opposite of positivistic paradigm. The interpretivistic paradigm relies on understanding how complex the social phenomena are and trying to interpret the understanding (Collis *et al.*, 2014:45). Qualitative research methodology is mainly exploratory research, which is used in the understanding of underlying reasons, opinions and motivations of individuals. There are various approaches available to conduct qualitative research including case study, narrative and grounded theory (Struwig *et al.*, 2013:13). Cooper *et al.* (2014:144) state that there exist various methods that can be used to collect qualitative data, such as focus group interviews, open-ended interviews and observation.

For the purpose of this study, a positivistic research paradigm, in conjunction with a quantitative research methodology was adopted, using a descriptive research approach.

#### 1.6.2.2 Population, Sampling and Data Collection

A research population is known as a precisely defined body of people or objects that are under consideration for statistical purposes. For the purpose of this study, the research population consisted of anyone who had visited the PEIA. However, due to the inability of researchers to test all individuals who had visited airport, a sample was selected. According to Collis *et al.* (2014:51), a sample is defined as the subset of the population. After researchers have identified the appropriate population for the study, researchers have to choose between two sampling methods, namely probability and non-probability sampling.

In probability sampling there is an equal chance for an individual of the population to be selected in the study. Here, the sample is selected using a random process (Acharya, Prakash, Saxena & Nigam 2013:330).

In non-probability sampling, there is selection bias in the study due to the uncertainty that a particular subject shall be selected (Acharya *et al.* 2013:332). Researchers are able to

choose from non-probability sampling techniques, including convenience, judgmental, quota and snowball sampling (Bryman *et al.* 2011:181; Collis *et al.* 2014:132; Struwig *et al.* 2013:116-117).

Due to the study being quantitative in nature, a large sample was required, this resulted in the researchers using of a survey research method, whereby a structured questionnaire was used to collect the data, which was in turn statistically analysed and interpreted. For the purpose of this study, convenience sampling was used as a sampling technique to conduct the research due to the ease of access to customers in the PEIA. The customers were approached by field workers from Nelson Mandela University, where a self-administered questionnaire was handed out to the willing participants and upon completion, the field-workers collected the completed questionnaire. Permission to conduct research at the PEIA was obtained from the Nelson Mandela Bay Tourism.

#### 1.6.2.3 Design of the measuring instrument

In order to statistically test the relationships between the dependent and independent variables, a measuring instrument was developed. The items of the measuring instrument were sourced from existing measuring instruments used in similar research, and which had been deemed both, valid and reliable. The respondents were required to complete a structured self-administered questionnaire which were used as the basis for the data collection. Respondents were required to evaluate their responses using an intensity rating scale, namely the Likert scale, as well as dichotomous questions. The questionnaire was accompanied by a cover letter and consisted of three sections.

The cover letter that accompanied the questionnaire highlighted the research topic, the objective of the research, as well as the promise of confidentiality. Furthermore, instructions for the completion of the questionnaire was included, as well as details which were applicable to Nelson Mandela University and the division, which was responsible for the research, namely the Unit for Applied Business Management. Section A of the questionnaire focused on the general demographic information regarding the respondent and the particular business in question.

In Section B, the respondents had to answer questions relating to service quality and lastly, Section C related to the fundamental service qualities necessary for customer satisfaction at an airport. The possible responses had the following values: Value one was strongly disagree, value two indicated disagree, value three indicated that the respondent was neutral, value four respondents agreed and lastly a value of five indicated that the respondent strongly agreed with the statement.

#### 1.6.2.4 Data Analysis

The data collected from the research questionnaire, was captured in Microsoft Excel 2016. Once the data was cleaned, the statistical program known as Stata version 12 was utilized to analyse the captured data. The validity and reliability of the data was assessed using an exploratory factor analysis (EFA) and Cronbach Alpha coefficients, respectively. The service quality dimensions for customer satisfaction at an international airport were evaluated. The validity and reliability of the research was tested through the use of the measuring instrument.

According to Collis *et al.* (2014:52), validity is used to determine the extent to which a given measuring instrument measure that which is intended to be measured. Both face and content validity were used in this study as items in the questionnaire were based on the literature study and subjected to expert judgement. Face validity was ensured by having the measuring instrument scrutinised by national experts in the fields of marketing (2) and tourism (2). Content validity was ensured by identifying items for the measuring instrument based on literature available on the subject matter. The validity of the measuring instrument was ascertained through the use of EFA. All items that did not load 0.5 and below was deleted in the EFA. All variables that cross-loaded was also disregarded.

Collis *et al.* (2014:52) indicate that reliability refers to the ability of the measurements to be exact and true and the presence of similarities in the results of the research when done multiple times. Cronbach's alpha coefficients were calculated to assess the internal

consistency of the scale items. This study adopted a Cronbach's alpha cut-off point off 0.6. George and Mallery (2003:50) state that a Cronbach's alpha of 0.6 and higher is considered acceptable. Initial reliability of the constructs was confirmed on the pilot study of 30 respondents and thereafter, the valid items identified for the constructs for the total sample were again subjected to reliability testing.

Various statistical data analysis methods were utilised to analyse the data such as: means, standard deviations, Pearson product-moment correlation coefficient and multiple regression. Pearson's product moment correlation coefficient is an inferential statistical technique used to measure the strength and direction of a linear association between the variables in the study (Collis *et al.* 2014:270; Freund, Mohr & Wilson 2010:354; Neelankavil 2015:334). For the purpose of this study the Pearson product-moment correlation coefficient was used to measure the relationship amongst the service quality dimensions and customer satisfaction at the PEIA.

Collis *et al.* (2014:282) explain that a multiple regression analysis (MRA) is a valuable statistical technique that assesses the statistical significant relationship between a dependent variable and two or more independent variables. Regression analysis was utilised to determine which of the hypotheses were supported or rejected based on the findings of the questionnaire.

## **1.7 SCOPE OF THE STUDY**

As disclosed in the literature review, a number of challenges had been identified that influence customer satisfaction at the PEIA. This study intended to focus primarily on the service qualities used by international airports as well as how the service quality dimensions influenced the perceived customer satisfaction at the PEIA.

The literature review provided an in-depth understanding of the service quality dimensions namely; tangibles, reliability, responsiveness, assurance, empathy, compliant handling and convenience and how they affected customer satisfaction at the airports.

This study strictly focused on these goals and did not gain an in-depth understanding about other factors that affect customer satisfaction.

The empirical research was conducted among domestic and international tourists of the age of 18 and above who had visited the PEIA.

## **1.8 STRUCTURE OF THE RESEARCH**

The structure of the research is as follows:

- Chapter one commenced with an introduction and background to the study; in addition, reference was made to the problem statement, the purpose and the research objectives, including the primary and secondary objectives of this study. The research objectives were then followed by the definition of the terminologies of the most important terms used throughout the study. After that a hypothesised model which served as the basis for the formulation of the research questions and numerous hypotheses was established. The research design and methodology followed, which includes primary and secondary research. The primary research commenced by discussing the research paradigm, sampling techniques used, data collection methods used and lastly data analysis used to ensure validity and reliability. After that, the scope of the study was clarified. The chapter concluded with an overview of the structure of the study which was provided.
- Chapter two provided a literature review based on customer satisfaction in the PEIA and the role of the service quality dimensions. The chapter commenced with the nature and importance of customer satisfaction in the PEIA, in addition to the challenges they face. The chapter concluded with the importance of service quality dimensions on customer satisfaction.
- Chapter three focused on the research design and methodology used in this study and the rationale behind the selected methodology, by elaborating on the sample and

sampling techniques, the measuring instruments used, and the primary data collection method used. The chapter concluded with the statistical technique used.

- In chapter four, the empirical finding and outcomes was presented. The findings of the research were clarified, including the reliability and validity of the study.
- Chapter five, concluded the study by providing a brief overview of the preceding chapters, together with an abstract of the main findings. The empirical findings were interpreted, and recommendations were provided to the PEIA, the contributions of the study were highlighted, and the limitations of the study were explained, and the recommendations for future research were given.



## **CHAPTER TWO**

### **OVERVIEW OF THE TOURISM INDUSTRY AND THE SERVICE INDUSTRY**

#### **2.1 INTRODUCTION**

In chapter one, the topic of the study, the influence of service quality dimensions on customer satisfaction at the PEIA was introduced. This included a brief background to the study, followed by the problem statement, the research objectives (primary, secondary and research hypothesis) of the study and the research methodology.

The main objective of this chapter is to identify the influence of service quality dimensions on customer satisfaction at the PEIA. In this chapter, an overview of the tourism industry will be presented. The four characteristics of service quality as well as the dimensions are discussed. The chapter will continue with a discussions on the service quality dimensions in an airport and customer satisfaction. Thereof, the chapter will conclude with a summary.

#### **2.2 OVERVIEW OF THE TOURISM INDUSTRY**

Tourism refers to a situation where people go to different destinations and stay for not more than a year with such travels being vacation-related, business reasons and other reasons (Camilleri 2018:4; Goeldner & Ritchie 2012:7). The National Organisation Insights Report (2018:1) states that tourism is responsible for providing services to either international- or domestic tourists who make such journeys for private, professional or vacation motives. Tourism is an important activity which helps in boosting the economy of both the developed and developing countries in the world (Baum & Szivas 2008:784). The tourism industry hence comprises of various organisations that make available goods and services to enable multiple activities to be provided to tourists who stay away from their normal environment.

The Department of Tourism and Culture (2015:1) states that there exist eight different sectors in the tourism industry namely; accommodation, adventure tourism and

recreation, attractions, food and beverage, tourism service, transportations, events and conferences, and travel trade. These various sectors will now be discussed in more detail.

### **2.2.1 Accommodation Sector**

Accommodation refers to the services provided to individuals who spend the night(s) in a destination (Hermann & du Plessis 2016:4). This sector is made up of various establishments which can be categorised as services of self-catering (Camilleri 2018:12), examples of accommodations that fall under the service or self-catering establishment include Bed and Breakfasts (B&B's), hotels, hostels, vacation inns, farmhouse accommodations, campgrounds, caravans, Airbnb's, day off rentals of lodges, studios and cabins and many others. Most tourists use hotels when they go to various destinations for business or leisure purposes (Camilleri 2018:12; Hermann *et al.* 2016:4; Page 2015:192). Furthermore, the tourist's selection of an accommodation mostly depend on either the tourism activity of interest to the tourist, the distance from the accommodation to the transport facilities, and the price of getting the accommodation (Camilleri 2018:13).

### **2.2.2 Adventure Tourism and Recreation Sector**

The adventure tourism and recreation sector of the tourism industry is experiencing fast growth and this sector's main areas include ski resorts, outdoor adventure and ecotourism, golf and tennis facilities, parks and marine facilities (Tc.gov.yk.ca 2019:3). Examples of activities in these areas include hiking, kayaking, river raffling, bird watching, helicopter skiing, horseback riding, canoeing, windsurfing (Department of Tourism and Culture 2015:1). This sector also makes use of other sectors such as the transport sector, the accommodation sector and other tourism sectors in providing the service (Department of Tourism and Culture 2015:1).

### **2.2.3 Attraction Sector**

The attraction sector is defined by Page and Connell (2009:197) as a sector which "comprises a wide range of built environment and natural environments, as well as cultural resources, products, festivals and events, which are developed and managed to

provide interesting and enjoyable experiences to the visitor”. Vengesayi, Mavondo and Reisinger (2009:624) state that attractions determine the space within which tourists enjoy their visit. Vengesayi *et al.* (2009:624) go further and state that the attractions of a destination is a key reason why a visitor may choose a particular region or environment over many others. Attractions are more appealing if they have properties that are rare, inimitable and available to only a few visitors (Vengesayi *et al.* 2009:624). Some examples of attractions include “historic sites, heritage homes, museums, halls of fame, art galleries, botanical gardens, aquariums, zoos, water parks, amusement parks, casinos and cultural attractions” (Goeldner *et al.* 2006:212; Tc.gov.yk.ca 2019:4).

#### **2.2.4 Food and Beverage Sector**

This is another sector of the tourism industry which entails varying establishments that supply food and drinks for consumption (Tc.gov.yk.ca 2019:7). Camilleri (2018:18) emphasises the importance of this sector as many visitors in a particular region are eager to taste and consume the food and drinks of the area they are visiting. This sector has become more sophisticated with the changing taste of customers and increasing competition. Examples of establishments in this sector include traditional restaurants, night clubs, bars, lounges, food outlets and many others (Page 2015:213; Tc.gov.yk.ca 2019:1).

#### **2.2.5 Tourism Service Sector**

The tourism service “is made up of organisations, associations, government agencies and organisation that specialise in serving the needs of the tourism industry as a whole rather than the needs of travellers specifically” (Department of Tourism and Culture 2015:1). This sector’s employees are individuals who conduct research on the various research trends, advertise the various tourism services, and provide information and statistics about tourism a particular region. The main areas of this sector include the government, researchers, the retailers and their organisations, marketing organisations and lastly the organisations which can aim at serving the entire tourism industry (Tc.gov.yk.ca 2019:8).

### **2.2.6 Transportation Sector**

Transportation sector refers to the various methods that ensures the safe and sound movement of tourists from one region or area to another (Department of Tourism and Culture 2015:1). Transportation is seen as the lifeblood of the tourism industry as it fills the gap between the destination and the region of origin (Lubbe 2005:128). The transportation sector can be divided into four subcategories, namely; air, rail, water, and road transportation (Camilleri 2018:8; Hermann *et al.* 2016:6). These will be briefly discussed in the section to follow.

#### **2.2.6.1 Air transport**

Air transport had a significant influence on individuals' mindsets with regard to duration and distance (Mammadov 2012:383). An airport is vital in air transport or travel as this is first point for the tourist to reach his or her destination (Mammadov 2012:382). Mammadov (2012:383) continues by postulating the importance of airports in having high service quality as it enables them to be able to outstand rigorous competition. Although air travel's main advantage is speed, the duration it takes in reaching the traveller's destination is becoming a significant concern (Goeldner *et al.* 2012:99). Air transport can be separated into domestic (within the country) and international (from one country to another) flights (Camilleri 2018:8).

#### **2.2.6.2 Road transport**

Various researchers (Mammadov 2012:383; Page 2015:121), state that this is the most used means of transport. This is as a result of its cheaper prices when compared to the other means of transport. Road transport is commonly offered using cars which can either be purchased by tourists or rented out, or through coaches or buses and campervans (Camilleri 2018:12; Weaver & Lawton 2014:143). Airports also get services from the car rental organisations which enable the tourists to rent cars to be used during their stay at a destination or/and to get a personal driver for the cars they rent (Camilleri 2018:12). According to researchers (Alex-Onyecho, Nnaji, Anyanwu, Ajoku, Opoola, Faith & Maduakolam 2015:50), road transport is being used by tourist as it can provide easy access to and through various destinations.

#### 2.2.6.3 Water transport

Researchers state that there are different water transportation means which include cruises, ferries and hovercrafts, passenger cargo ships, river cruises, house boats and yacht charters (Camilleri 2018:10; Hermann *et al.* 2016:6; Page 2015:138). Camilleri (2018:11) continues by stating the difference between ocean liners and cruise liners where ocean liners provide water transportation services, transporting customers from one port to another whereas the cruise liner mainly offers pleasure trips to its customers.

#### 2.2.6.4 Rail Transport

The rail service provides either first-class or second-class services to customers and are available in most parts of the world (Camilleri 2018:12). Railway transportation can be provided to tourist through the use of metro and tramway systems which are used in providing tour services around the cities (Mammadov 2012:384). Despite the above information, researchers (Page 2015:137; Weaver *et al.* 2014:143) state that the use of rail transport facilities is shrinking and hardly has an influence on tourism.

### 2.2.7 Events and Conference Sector

The events and conference sector is a sector where tourists come together for a particular reason (Wallace 2014:1). Hermann *et al.* (2016:9) and the Bahamas Hotel Association (2009:2) state that this sector deals with organising events, meetings, conferences for tourists who come to the country for attending events such as trade shows, fairs conventions, festivals, cultural and sporting events and many others. Wallace (2014:1) further states that this sector employs from other sectors as it makes use of the services of the other sectors such as transportation and accommodation. The events and conference sectors helps to improve the economy of that country or the region where the events take place and are therefore vital to the tourism industry (Adhikari 2018:1).

### 2.2.8 Travel Trade Sector

This is a sector that deals with deciding how to provide travelling and accommodation services to tourists who travel for pleasure or for business reasons (Wallace 2014:1). The travel trade sector hence acts as an intermediary between the end provider of the service

and the tourist. According to the Bahamas Hotel Association (2009:2), the travel trade sector can provide tourists with services such as booking trips for them, making reservations for accommodations, organising tours for the tourists around the cities and any others.

From the literature provided above, it was established that there exists eight different sectors in the tourism industry which include accommodation, adventure tourism and recreation, attractions, food and beverage, tourism service, transportation, events and conferences, and travel trade. In the transportation organisation, transportation can be done by water, air, rail, and road. This study shall focus on air transport specifically at an airport. It is apparent from the literature above that the various sectors are co-dependent upon one another so as to deliver a service of added value to the tourist. To illustrate the uniqueness of tourism products, the characteristics of tourism products and services will be discussed in the following section.

## **2.3 CHARACTERISTICS OF A SERVICE PRODUCT**

The characteristics of service product are intangibility, inseparability, heterogeneity and perishability (Palmer 2011:35). These characteristics are briefly discussed below in the context of an airport setting.

### **2.3.1 Intangibility**

Intangibility is refers to the inability of a service provider to touch the service being provided (Zeithaml 2006:6). For example, airlines offer an intangible service in the form of transportation and the services offered by an airline is a blend of tangible and intangible services (Kandampully 2001:30). Wilson, Zeithaml, Bitner & Gremler (2016:65) add that the main distinguishing attribute of a service is its formlessness. As services are tasks or shows provided to customers, they therefore cannot be interacted with like tangible products (Wilson *et al.* 2016:65). When a service is sold or being promoted, the satisfaction or benefit that a customer expects to gain from purchasing a service is important for any organisation to consider. For example, when an airline sells a flight from

one destination to the next the customer bases their opinion of the service on their perception of it not from handling or smelling it (Vijaywargia 2012:5).

### **2.3.2 Inseparability**

Inseparability refers to the correlation that exists between production and consumption of the service (Palmer 2011:30). A service that cannot be removed from the service provider is also known as inseparability (Kotler & Armstrong 2011:4). According to Wilson *et al.* (2016:67), inseparability can also mean that customers will regularly come into contact with each other when they experience a service and will therefore affect one another's service experience. For example, customers that sit next to one another in an aeroplane can affect the fundamental service experience for each other. Wilson *et al.* (2016:67) adds that services differ from products because they are produced and consumed simultaneously whereas products are produced first, then sold and consumed at a later stage. Kossmann (2006:14) added to the literature by stating that production and use must happen at the same moment. For example, a tourist taking a flight must be present when the service is performed to consume it (Leow 2015:27).

### **2.3.3 Heterogeneity**

Heterogeneity refers to the inability to keep services the same (Zeithmal, Bitner & Gremler 2013:65). Heterogeneity is affected by not only by perceptions, requirements and experience of diverse customers, but also by the specific mood of an employee (Zeithmal *et al.* 2013:65). As a result of heterogeneity service results and perceived happiness are dependent on the behaviour of both the customer and employee. Service providers cannot guarantee to deliver services as advertised, promised or designed, because the value of a service can be affected by many other unpredictable elements or factors (Zeithmal *et al.* 2013:65). Within the airline industry, a customer will never experience a similar flight experience twice due to seasonal changes, different routing, different equipment and many others (Aviation Stack Exchange 2016:1).

#### **2.3.4 Perishability**

Perishability is the inability of a company to stock, preserve and give services back (Zeithmal *et al.* 2013:66),. In the airline industry, perishability refers to airline seats that cannot be held for long periods without paying or making a deposit (Pride & Farrel 2011:68). Vijaywargia (2012:5) states that services are extremely perishable, and time is a factor that plays an important role in this service product characteristic. As a result of perishability, it is difficult to balance supply and demand for services. For instance, if airlines do not manage to sell all seats for a flight, the airline has no choice but to leave with empty seats (Azimli 2013:7).

It is clear that the tourism industry has characteristics that distinguish it from other industries. Though the tourism product has both tangible and intangible features, it is dominated by intangible features and it is therefore regarded as a service. It is therefore considered important to examine service quality.

#### **2.4 SERVICE QUALITY**

Service quality refers to a customer's mental analysis of a service provided to him or her (Metwally 2013:300; Park *et al.* 2012:352). Carvajal, Ruzzi, Nogales and Moreno (2011:13189) add that service quality is most often referred to as a "customer's perception of service excellence". Park *et al.* (2012:353) also stipulate that service quality is of prior importance to an organisation especially in distinguishing their services from those of rivals who provide similar services. Service quality is a continuously investigated topic under the service marketing field. As a result of the increase in customer awareness regarding the service quality, organisations should focus on increasing the standard requirements of their services (Nyajeka 2016:33).

Kratudnak and Tippayawong (2018:1774) state that service quality of an airport has direct and indirect influences, having direct influences on the organisation's productivity and profitability and indirect influences on the tourism industry and other related organisations as it can prompt customers to use or recommend an airport that provides suitable service quality. Kratudnak *et al.* (2018:1774) continue by stating that an airport's strategy used in



improving the service quality is good if it determines the important quality traits that need to be enhanced. Since customer satisfaction comes through attaining the perceived service quality, Pandey (2016:242) states that determining the service quality of an airport can help the organisation in its efforts to cater for the particular needs of its customers. The latter proves that the customer is an important judge of the service quality and that the key benefits of service quality include customer satisfaction, customer retention, profitability, reduced costs and efficiency of the workforce.

Ismail and Yunan (2016:271), conclude that airports using service quality dimensions shall have an induced positive effect on the customer satisfaction and customer loyalty. Saghier (2015:56) adds that organisations can only achieve their required service quality if their employees follow the service quality dimensions.

## **2.5 SERVICE QUALITY DIMENSIONS**

The seven service quality dimensions and how they can be measured in an airport shall be elaborated on below. These dimensions are reliability, tangibility, responsiveness, assurance, empathy, convenience and complaint handling.

### **2.5.1 Reliability**

According to Berndt and Tait (2014:56), reliability is the ability to provide services to customers that are accurate and dependable and focus on delivering the promised service quality standards that the organisation has made. Customers expect companies to keep the promises that they have made, and to show a sincere interest when they assist clients in resolving problems (McCollin, Ograjensek, Gob & Stuub 2011:72). Reliable service is expected by customers every time they interact with an employee and means that the services a customer receives should be executed in a timely manner, in the same way, and with no mistakes or errors consistently (Adeoye & Lawanson 2012:16). If an organisation is unsuccessful in delivering the key services that customers expect to receive, customers will come to the assumption that the firm is unreliable (Berndt *et al.* 2014:56).

Al-Refaie, Bata and Jalham (2014:95) state that reliability is the aptitude of a person or system to carry out and keep up functions not only during normal circumstances, but also under unexpected conditions. Performing services correctly the first time is important for the continued success of an organisation. Like most service sectors, airports are expected to deliver high-quality service. The first and last point of contact for a tourist or any other visitor to a country is an airport. (Arif *et al.* 2013:364). Therefore, services delivered at an airport should be done efficiently to lower travel time and to make shopping and leisure time more enjoyable in the commercial areas (Martin-Cejas 2006:60).

According to Bezerra and Gomes (2015:79), customers will most probably award increased scores for total contentment within an airport. The level of his/her satisfaction with regards to the aspects of “check-in”, “security”, “ambience”, “basic facilities”, and “price” helps them to form this conclusion. The latter are considered to be appropriate when determining the level of reliability at an airport. (Hoang, Thu, Ha & Quy 2016:46). Customers desire airports to provide essential conveniences, for example bathrooms, concessions and places to eat. They also expect it to be well organised with clear directions (Smahel 2017:34). Every airport has a unique feel to it, even though they provide the same fundamental services to customers such as “check-in”, “security” as well as “border protection”. Customers might experience small but noteworthy variations that might surprise them (Smahel 2017:34). Customers predict what kind of service they will experience at an unfamiliar venue based on previous encounters. Hence customers desire airports with a comfortable atmosphere which they can familiarise themselves with.

Before arriving at a destination, customers imagine themselves in the unfamiliar setting based on what expectations they have of it. If the customer perceives the new place to be similar to that of previous places they have been to, they will adjust to the new environment more easily (Smahel 2017:34). However, the more different the unfamiliar environment is perceived to be, the more time it will take for customers to adjust to their new surroundings. This results in a decrease in overall customer satisfaction (Smahel 2017:34). Bogicevic, Yang, Bilgihan and Bujisic (2018:9) evaluated which factors within the air travel sector are distracters and which factors were perceived to enhance

passenger contentment. The study results showed that “cleanliness of facilities” and a “pleasant environment” were the key satisfiers in an airport setting. In contrast, the researchers found that “security check” was a major problem within an airport setting.

According to Sindhav, Holland, Rodie, Adidam and Pol (2006:324), considerable costs such as time and government support, linked with security measures at an airport are important. Therefore, it is of utmost importance to examine customers’ perceptions with regards to mandatory security measures which was implemented after September 11, 2001. Sindhav *et al.* (2006:324) state that all customers have to go through a standard security check starting from the time they arrive at the airport until they board their flight. The task of getting through security is a long and tedious process and may include the removal of “jackets”, “belts” or jewellery, emptying out of “pockets” or laptop bags, just to tediously reassemble it in the end. As a result, it can lead to lengthy waiting lines or longer waiting times and concern for the physical/mental condition of the young, elderly or those in poor health during this process (Sindhav *et al.* 2006:324). Sindhav *et al.* (2006:324) conclude that as a combination these elements result in a “hassle factor” with regards to security screening. Obstructive factors may drive potential customers away from using any airports services. In addition, some customers are required to undergo further security checks (Sindhav *et al.* 2006:324).

As a result, the perceived equality of the security screening system may differ among customers (Sindhav *et al.* 2006:324). Perceptions could be based on how fair an individual believes the procedure to be regarding selecting customers. The perception could also be based on the individuals experience compared to other customers (Sindhav *et al.* 2006:324). Sindhav *et al.* (2006:324) then propose that this new and significant aspect of security screening will therefore effect customer satisfaction. Previous research relating to perceived safety at an airport has been done. Kirshenbaum and Rapaport (2017:189) found that well trained employees tend to comply with rules and protocols more than those employees who did not receive sufficient training. According to Kirschenbaum (2013:16), security checkpoints are viewed as a source of anxiety but are tolerated for the sake of overall safety. An airport terminal that is well maintained also

serves as a good indication that employees know what they are doing. Clear, visible lounges, overpass walkways, and division of passenger flows have been shown to be factors that positively influence safety at transit points (Ceccato 2013:67).

According to Ceccato and Masci (2017:358), all airports are different in terms of size, location, blueprint and type, but still follow the same basic standards. All airports are comprised of entrances, and exits, security, lobbies, checkpoints, public areas with restaurants, changeover areas, basic facilities, waiting areas at gates and essential facilities such as toilets and medical assistance. Whether these above-mentioned factors do have an influence on customers perceived safety is important to consider (Ceccato *et al.* 2017:358). In an independent study done on 400 customers by Ceccato *et al.* (2017:362), the perceptions of customers regarding their own safety at an airport were investigated. They discovered that customers were worried about their own safety and also about their belongings when entering a toilet at an airport. The customers were also anxious and confused in areas like airport entrances, security checkpoints, restaurants, boarding areas and shops. According to Hoang, Thu, Hai and Quy (2016:46), reliability at an airport can be measured by looking at the availability of taxis and their prices, bathrooms and their hygiene levels. Also, the nature of the retail outlets, the costs of products sold at restaurants, bars and coffee shops, how customers view security and safety levels at the airport are determinants of that airport's reliability.

### **2.5.2 Tangibility**

This refers to how well a company maintains its buildings, equipment and communiqué tools, and its ability to provide a suitable appearance of its personnel (Berndt *et al.* 2014:57). Customers expect the facilities and equipment of companies to be modern-looking and that their employees be neat and presentable (McCollin *et al.* 2011:72). The condition of a company's surroundings provides customers with tangible evidence of what level of service to expect. This dimension of assessment can also have an effect on the behaviour of other customers (Adeoye *et al.* 2012:16). According to Subha and Archana (2013:30), tangibility within an airport setting can be defined as the outward appearance of the airport's structure, equipment, employees, and printed resources. The appearance

of an airport helps customers to form their opinion about the services they are about to receive. Schultz and Fricke (2011:1) state that airports are complex buildings and are seen as a component that cannot be done without in today's transfer system and have to meet the needs of various customers. An airport is designed primarily for the purpose of providing handling processes for customers that depart or arrive at an airport (Schultz *et al.* 2011:1). Schultz *et al.* (2011:1), notes that airports are becoming even more reliant on the non-aviation sector (shops and service revenues) for revenue. Airlines on the other hand, focus on acceptable terminals and inexpensive goods afforded (Schultz *et al.* 2011:1). Airport operators must therefore take all these different customer demands into account, to ensure the best possible arrangement of their frequently incompatible needs (Schultz *et al.* 2011:1).

Alhkami and Alarussi (2016:117) stated that tangibility in an organisation is determined by looking at if the tangible equipment exhibit visual appeal, utility, comfort and productivity for its users. Various researchers have inspected the serviscape framework within the context of an airport namely: Correia, Wirasinghe and de Barros (2008:330); Fodness *et al.* (2007:8). Fodness *et al.* (2007:8) stated that a successful well-designed airport is linked to insightful or well-designed information displays and buildings that are conveniently located, with the aim of pleasing customer demands for an efficient airport. Correia *et al.* (2008:333) made use of factors like distance walked, time elapsed when walking, "processing time", space availability for customers or cars at curb side, orientation/information display, and number of seats in departure lounges" in order to investigate the service levels provided at San Paulo airport terminal. The study by Correia *et al.* (2008:344) thus represents an effective way to examine the service quality of airport facilities.

Even though sources of non-aeronautical revenue may vary among airports, retail revenue contributes the most towards the financial success of most major airports (Tseng & Wu 2019:380). According to Benham (2009:9), the availability of retail space in an airport is one of the key challenges facing airports today. Research conducted at Macquarie's airport indicates that customers want to see a wide range of products and

services available here. Therefore, it makes sense to meet those needs. Benham (2009:9) also states there is a strong link between space provision and the level of sales that can be generated. Retail space should be developed together with operational space, as they both contribute towards the total airport experience (Benham 2009:9). A space driven strategy can facilitate the long-term success of the airport while providing opportunities for all business partners (Benham 2009:9). Research has been conducted with regards to the hospitality and retail facilities provided at an airport terminal. According to the study done by Rowley and Slack (1999:5), lounges that are large, well-lit and spotless with well-known retail stores and restaurants have a positive effect on passenger experience. Previous studies by Entwistle (2007:9) and Graham (2009:11) have found a positive link between the location of shops and consumer intentions to buy things. It also points out that not only is more retail space becoming available within terminal zones, but customers are also purchasing more things within those areas. Most of the purchases are done in “casinos”, “restaurants”, “conventions”, and “festivals”, which are related to the hospitality industry.

Researchers have found that the tangible surroundings of a building has a definite influence on customer contentment and allegiance (Lam, Chan, Fong & Lo 2011:320). Stylish decor, pleasant conditions and a large layout in lavish restaurants were confirmed to have a positive influence on eliciting optimistic customer emotions (Hyun & Kang 2014:65). Therefore, due to the significant effect that the tangible environment has had on customers, steps have been taken to improve it (Moon *et al.* 2015:194) The effect that an airports physical environment has on customer satisfaction, has been researched. Moon *et al.* (2015:207) discovered that an airports physical environment does influence customer satisfaction positively. Hoang *et al.* (2016:46) state that tangibility in an airport can be measured by assessing: terminal comfort ambience and design, of “check-in” facilities, queuing arrangements and seating amenities, clarity of boarding calls and public announcements; variety of bars, cafes and restaurants to choose from, availability of peaceful areas, availability of business conference room facility, designates smoking areas/smoking policy, availability of ATM/Bureau de change facilities, TV/ Entertainment facilities, and location of airline lounges.

### 2.5.3 Responsiveness

The willingness or eagerness of employees to provide high quality service without delay is known as responsiveness (Berndt *et al.* 2014:57). Customers expect to receive quick and efficient service, as well as employees that are willing to attend to their complaints without delays (McCollin *et al.* 2011:72). Keeping customers waiting for long periods of time without providing a legitimate reason can give clients the impression that the firm does not care about service quality. In the event of a service failure, the capability of an organisation to solve the problem swiftly and with professionalism can give clients the impression that the firm does care about service quality (Adeoye *et al.* 2012:16). Therefore, understanding what customers expect in terms of time (speed) is vital in order for any organisation to understand how it can be seen as responsive (Berndt *et al.* 2014:57). Subha *et al.* (2013:30) state that responsiveness, which relates to performance standards is the quality with which processes are carried out. Regarding the airport sector, the recognition of this dimension seems acceptable as customers want to avoid problems during their travels or when boarding. Customers want to receive a service without problems, performed at high levels, properly, and punctually (Subha *et al.* 2013:30).

In spite of the fact that air travellers anticipate high levels of service prior to taking a trip, the chances of service breakdowns occurring are high in various areas where employees interact with clients while travelling. This includes cancellation of flights, hold-ups or distractions, courtesy of land and cabin staff, “strikes”, overbooked flights and booking problems (Coye 2004:60). According to Casado and Ruiz (2002:30), customers that experience a delay, specifically a service failure more often than not, have an immediate negative emotional reaction. Disappointment is one of the emotions that customers usually have. These emotions become stronger the longer the problem is not dealt with; especially when there is a lack of clarity with regards to the delay. The widely accepted observation among managers and researchers is, the more terrible a service failure is perceived to be, the greater the influence it will have on customer contentment and business performance (Weun, Beatty & Jones 2004:8). Research conducted by Keiningham, Morgeson, Aksoy and Williams (2014:415) discovered that, in contrast to

popular belief, small incidents have a more significant influence on consumer contentment and organisational success. In fact, their findings discovered that incidents that are perceived as major have no effect on future contentment. The researchers state that this may be as a result of not many people being affected by major incidents and customers are more likely to stop using the service after experiencing a major incident. Wu (2010:30) stated that major or minor delays cannot be avoided in the air transportation industry and airlines should therefore invest in systems that will minimise the effect that delays have on customers and save the organisation as much money as possible. Although it is almost impossible for organisations to stop service breakdowns from happening they can, however, become skilled effectively handling these breakdowns to preserve and perhaps even improve customer contentment (Bamford & Xystouri 2005:307).

Bamford *et al.* (2005:314) state that if a service failure is not dealt with in a timely manner, it can lead to customers losing confidence in the business. This in turn leads to customers leaving the organisation for another competitor (Colgate & Norris 2001:215). Organisations should therefore provide customers with the right kind of compensation at the right time which will result in increased customer retention and reduce cost (Roschk & Gelbrich 2013:2). Prideaux, Moscardo and Laws (2006:35) state that an increasing number of organisations within the tourism and hospitality industry are training their employees to improve service recovery efforts and to deal with customer complaints in a more efficient manner. This can lead to increased levels of customer contentment when service problems occur. Magnini, Ford, Markowski and Honeycut (2007:213) state that despite the potential harmful costs as a result of service failure, service recovery efforts that are implemented successfully can result in mutual benefits for both the customer and the organisation. Achieving these benefits are possible because effective service recovery efforts can result in enhanced customer contentment and allegiance which has an influence on whether a disgruntled customer will leave or stay with the organisation (Torres & Kline 2006:294; Magnini & Ford 2004:279). Organisations can implement certain policies or processes to effectively deal with service breakdowns as fast as possible and these efforts include; ensuring that employees take professional action (La



& Kandampully 2004:394; Boshoff & Staude 2003:11), and providing customers with a sincere apology, combined with a gift of some sort to appease them (Mattila & Cranage 2005:276).

In a research conducted by Abdallah, Mohamed and Mekawy (2007:291), the researchers discovered that responsiveness was one of the most vital service quality dimensions. They go further to state that the ability of the employees to understand the specific needs of their customers, provide services instantly, and handle the baggage of customers are deemed to be very important to customers. Alhkami *et al.* (2016:119) state the importance of responsiveness as one of the dimensions of service quality and that responsiveness looks at an employee's willingness to assist customers, answer to these customers pressing needs, and inform them when services shall be rendered to them. The latter adds that the ability of the organisation to swiftly respond to defects or problems from the service shows how much the organisation cares about providing quality services.

#### **2.5.4 Assurance**

Assurance is described by Berndt *et al.* (2014:57) as the ability of an employee to convey trustworthiness, believability, honesty and confidence. It also refers to the knowledge that an employee possesses and the courtesy they show to clients. According to Adeoye *et al.* (2012:16), the assurance dimension is comprised of the subsequent factors; ability to carry out the service, courtesy and respect showed to the customer, ability to effectively communicate when dealing with customers, attitude that the server really wants what is best for the client. Today's customers anticipate that employees will answer all their questions professionally and that they will be treated courteously (McCollin *et al.* 2011:72). If a service is perceived as high risk or if the customer is unsure about how to weigh up the outcome, then the assurance dimension is deemed to be even more important (Berndt *et al.* 2014:57).

From an airport's perspective, Subha *et al.* (2013:30) define assurance as the quality of social communication between customers and the airport service provider. Customers expect employees to be capable, helpful, and respectful, to understand their desires and

to provide clear and understandable information (Subha *et al.* 2013:30). Even though airports are becoming more techno-savvy, the discovery of this dimension shows that personal interaction still needs to be given more attention (Subha *et al.* 2013:30). According to Sachdev and Verma (2004:45), assurance is one of the most significant factors of service quality. Subha *et al.* (2013:32) provided similar findings stating that both assurance and empathy are the primary drivers of customer satisfaction. The researchers go on to say that employees, especially contact personnel, have the most influence on this very important service quality dimension (Subha *et al.* 2013:32).

Wiredja, Popovic and Blackler (2019:492) state that customers enjoy a better travelling experience when airport operators meet or surpass their expectations. It is therefore vital for management to be proficient at identifying areas where improvements can be made within an airport environment in order to match or surpass passenger expectations (Wiredja *et al.* 2019:492). Customers are regarded as stakeholders of an airport. Therefore, their needs should to be looked into, in order to determine which aspects are vital, and how insufficiencies or service failures can be avoided by airports or airlines (Airports Council International 2001:1). Engaged employees are difficult to develop within an airport. Paternoster (2008:224) states that the working environment within an airport tends to be very complicated as the majority of employees within an airport tend to work for different companies who have different plans for the airport.

As a result, the chances of customers experiencing high service levels which is aligned with the airports brand on a frequent basis is low, unless the airports employees are sufficiently motivated and positioned to produce results (Paternoster 2008:224). To combat this, airports have implemented strategies that summarise the information, professionalism and well-mannered behaviour all airport staff are required to have when assisting clients. These strategies help shape the foundation upon which airport passenger attendance, instruction programmes, methods of analysing performance and employee rewards programmes are developed (Paternoster 2008:224). Paternoster (2008:224) adds that many airports are changing the way they hire employees. This is to ensure that employees who perform exceptionally well, are identified and rewarded.

Paternoster (2008:224) emphasises that efficient and habitual employee communication can ensure that employees are informed about any future events, changes in operations and renovations to buildings in good time. This can encourage a feeling of well-being amongst employees of the company, and prepare them adequately to better anticipate passenger requirements, reply to customer enquiries and contribute in promoting the company's persona.

Balakrishnan, Musthan and Chandra (2013:9) state that due to the rising demand for air travel, customers' expectations of airports have also been increasing. The rise in the number of customers and cargo handling has resulted in additional demands that effect all airports around the world (Balakrishnan *et al.* 2013:9). There are two main aspects that airports need to consider. Firstly, customer service that meets global standards and secondly, the availability of technical and operational expertise for the upkeep of the airport system (Balakrishnan *et al.* 2013:9). The demand for people who possess such skills is high. Thus, attracting and retaining such talent is becoming a major test for airports (Balakrishnan *et al.* 2013:9). In addition, ensuring passenger satisfaction, safety, and comfort are also very pressing concerns (Balakrishnan *et al.* 2013:9). Balakrishnan *et al.* (2013:9) state that achieving these goals could only be possible if the organisation has highly engaged employees.

According to Balakrishnan *et al.* (2013:1), airports are service orientated businesses which require firm commitment and effort from employees to ensure its successful and safe operation. Passenger's safety and satisfaction are dependent on the service provided by employees and working airport systems which are operated by employees (Balakrishnan *et al.* 2013:1). Therefore, it is important to monitor an employee's ability to deliver services that meet or exceed customer expectations (Balakrishnan *et al.* 2013:1). Balakrishnan *et al.* (2013:1) thus emphasises the importance of keeping employees engaged so that they will deliver their discretionary effort.

Research conducted by Barros, Somasundaraswaran and Wirasinghe (2007:295) found that courtesy shown by security and check-in staff at an airport were valued the most by

transfer passengers. Similarly, Liou, Tang, Yeh and Tsai (2011:13792) discovered that frequent flyers place a high level of importance on the courtesy shown to them by the airport staff while infrequent flyers were concerned about the security and ICQ (Immigration Customers and Quarantine) when measuring the airport level of service at a Taiwanese airport terminal.

According to Pabedinskaite and Akstinaite (2014:406), assurance at an airport can be measured by assessing the following: the skills and knowledge portrayed by staff providing technological support, courtesy and knowledge shown by staff providing ground handling services, courtesy knowledge and experience of aviation safety personnel, courtesy and knowledge of operational control personnel. Various researchers (Bezerra *et al.* 2016:88; Kratudnak *et al.* 2018:1778) add that assurance measures for an airport include the politeness and approachable nature of the airport employees.

### **2.5.5 Empathy**

Empathy is defined by Berndt *et al.* (2014:57) as the devoted personalised courtesy and care offered by an organisation to its customers hence being concerned about each of its individual customers. Furthermore, the researchers indicate that with empathy, the organisation assures the customer that their unique needs shall be catered for (Berndt *et al.* 2014:57). With empathy, the organisation analysis what their customers require and provides them with or make these services available to them (Alhkami *et al.* 2016:120). Alhkami *et al.* (2016:120) adds to the debate and states that empathy also entails employees knowing exactly what their customers require. The individualised attention and concerns that the organisation offers includes providing accessibility, communicating with the customer and understanding the customer (Hussin, Razmin, Aziz & Sabandan 2017:3). According to Saghier (2015:58), empathy can be used in measuring the service quality performance by looking at the service approachability, accessibility and the effort put in to know exactly what the customers need. Hussin *et al.* (2017:7) stipulate that both the employees and the machines of the airport have to work efficiently by ensuring that the tourists or customers present enjoy their journey, ensuring that the airport possesses

more lanes at the counters and by providing entertainment or anything to get the customers attention away from the waiting time.

Sulankey and Kazimoto (2017:9) state that empathy at the airport can be measured by looking at the employees ability to provide assistance through advice to the customers regarding the specific needs, the airport being able to accommodate the needs and wants of all their customer through their services, the employees understanding what specific needs that the customers demand, the customers are considered as the major priority of the workers and hence workers are devoted to them. Adeniran and Fadare (2018:5) state that the services that can be used to measure the airports level of empathy include the cleanliness of the airport facilities and its products, the availability of quality information which is present on the screen for customers or customers, the availability of signage facilities indicating where the boarding, terminals and arrivals gates respectively are.

#### **2.5.6 Convenience**

Convenience is defined by Farquhar and Rowley (2009:425) as an organisation's ability to diminish the amount of effort, energy and time that customers invest for them to acquire a certain service or product. They also state that convenience can be used in improving the customer value to be received. According to Gagliano and Hathcote (1994:64), convenience in a service organisation deals with the ability of the organisation to provide modern services during their operational hours that can do the job as fast as possible for customers. Benoit, Klose and Ettinger (2017:527) indicate that convenience shall result in customer retention, fulfilment, customers revisiting to get the same service, consumers recommending the service to other individuals and increasing the customer loyalty. The physical environment of the service, the information that is available to consumers, the brand of the organisation and the design of the service system are factors that play a main role in affecting the service convenience (Berry, Seiders & Grewal 2002:4).

Berry *et al.* (2002:60) came up with five types of conveniences that include “decision convenience, access convenience, transaction convenience, benefit convenience and post-benefit convenience”.

- Decision convenience refers to the ability of a customer to choose how a service shall be provided while taking time and effort expenditure into account (Berry *et al.* 2002:6);
- Access convenience deals with the expected actions required from customers to ask for a service and actions to make themselves available to get the service;
- Transactional convenience looks at how convenient it is for customers to make a transaction to receive a service in return while putting in little time and effort;
- Benefit convenience is the amount of time and effort that is reduced to enable the customer to enjoy the main benefit of the service such as reaching the destination on time. The researchers went forward to say that if it takes extra time for a plane to reach an airport than the time frame stipulated, then there is benefit inconvenience and this shall result in a reduction in the cost benefit; and.
- Post benefit convenience is a reduction in duration and effort for the customer by getting feedback and reviews regarding the service that was made available for the customer (Berry *et al.* 2002:7).

According to various researchers (Bezerra & Gomes 2016:88; Bruning *et al.* 2009. Kratudnak *et al.* 2018:1778; Sulankey *et al.* 2017:9), convenience measures for an airport include the availability and quality of the stores at the airport, availability of employees to handle customers' request, the availability of financial organisations or machines to perform the financial services or exchange bureaus and the availability and quality of the various food outlets located in the airports and the convenience of the airports service working or trading hours to the customers.

### **2.5.7 Complaint Handling**

A complaint is defined by Metwally (2013:299) as a situation where a customer makes his opinion known about his unhappiness with regards to the organisation's product or service. The researchers go forward to describe complaint handling as the ability of the organisation to take the complaints of the customers into account and hence looks for means in solving these complaints and saving unnecessary costs (Metwally 2013:299). Airports act as an intermediary between all the involved parties and hence play a crucial role in complaint handling and management as it can affect the airport internally and

externally (Di Pietreo, Mugion, Pantouvakis, Patsiouras, Toni & Renzi 2015:2). According to Metwally (2013:300), an organisation should ensure that they handle complaints as fast as possible as complaint is key in customer retention, and influences the organisation's image, reputation and credibility. Metwally (2013:305) states that various steps should be involved when handling complaints.

The first step is to appoint specialised staff to receive the complaints from customers, and after doing this, the organisation must accept and inform the customers that the complaint has been received and shall be looked into within a specific timeframe and not giving a blind eye. Furthermore, Metwally (2013:305) states that the organisation acknowledge the complaint provided by the customer to them. This helps the organisation in assuring the customer that their complaints shall be handled and also that the customer's expectations are being met.

The third step in complaint handling is to assess the complaint (Metwally 2013:306). It is necessary for the complain to be assessed as early as possible to enable the complaint to be well handled. Some complaints will require actions such as refund of money, compensation or policies to be done to avoid similar situations from occurring whereas other complaints will require apologies and explanations on the situation. Metwally (2013:306) goes on to state that in assessing the complaint the organisation should also enquire from the customers what they expect of the service.

After assessing the complaint, the organisation has to carry out investigations on the issue raised by the complaint, analyse it and come up with a solution to the situation. In this stage Metwally (2013:306) states that "impartiality, confidentiality and transparency" are key principles. Impartiality is important in realising fairness and hence those in the complaint handling office should not always defend their organisation and the complainant should not always try to prove the organisation wrong. Confidentiality entails the complaints of the customers being kept private and the complaint being solved without making it public. Transparency looks at the complainant being informed on the process

that shall be taken in handling the issue and also informing him or her on the results of the investigations (Metwally 2013:306).

The next step entails giving a detailed response to the customer about how the complaint shall or are being tackled and feedback to the customer. This is important in restoring the trust that exists between the organisation and the complainant and assure such complainant that the issue is properly tackled. In addition to this, the organisation must follow up with the reviews of the complainants to ensure that the complaints are handled, and this makes the customer aware of the fact that the organisation cares about them. Metwally (2013:307) goes on to state that the critical or very important complaints need more important follow up. Lastly, the organisation should use the complaints process as a means to gather information and improve the systemic issues that the organisation faces (Metwally 2013:307).

Di Pietreo *et al.* (2015:20) state that complaint handling at an airport can be measured by determining if the airport has been able to manage the external relationship between its customers and employees, how far the airport goes in trying to reduce the influence of the negative complaints of the customers on the airport, if the airport implemented an effective method to solve or address the complaints made by the customers and lastly if the customers are kept informed of the actions the airport has taken to solve the complaints and getting feedback from these customers either in person or through social media.

It is clear from the above that service quality can only be archived if its service quality dimensions are taken into consideration in the provision of the service. Meeting the above service quality dimensions shall enable organisations including airports to have a positive effect on customer satisfaction. In the section that follows, customer satisfaction will be discussed in more detail.



## 2.6 CUSTOMER SATISFACTION

Customer satisfaction is defined as the difference between the perception or idea a customer has of a service or product before he or she is provided with or comes across the it, and that customer's view or idea after experiencing the use and consumption of the product or service (Sulankey *et al.* 2017:7). They also state that customer satisfaction comes from the consumer's view of the business and its services being able to provide maximum satisfaction for little effort. Salim, Setiawan, Rofiaty and Rohman (2018:406) state that a customer's insight and view of the performance in line with his prospect shall have an influence on his or her satisfaction levels. Customer satisfaction is key irrespective of the service business and needs to be demarcated and measured (Park *et al.* 2012:353). Various researchers (Jamkatel 2018:70; Sulankey *et al.* 2017:7) indicated the fact that the level of service quality that customers receive from the service providers directly or indirectly affects customer satisfaction and hence a high level of service quality shall imply an increase in customer satisfaction. Park *et al.* (2012:353) have it that determining the how satisfied customers are at an airport is of great importance for the management at the airport to be more versed with their customers and enable in coming up with marketing strategies. After considering the concentrated competition in the service industry, Ryu and Han (2010:311) emphasise that customer satisfaction is necessary in increasing the loyalty, promoting through positive the word of mouth, and repeating or continuously providing the service in the airport to the customers.

Organisations have as main priority retaining their existing customers while trying to attract non-customers. Determining customer satisfaction indicates to the organisation how successful they have been in providing a particular product or service to the customers (Ahmed & Amir 2011:314). Ahmed *et al.* (2011:314) continue by stating that customer satisfaction can vary with each individual and each product or service. "The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviours such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organisation's products" (Ahmed *et al.* 2011:314).

Sulankey *et al.* (2017:5) state that customer satisfaction is key for the development of an airport. The customer satisfaction with regard to the quality of services rendered at the airport shall enable the airport to strengthen its competitiveness vis a vis other airport, increase the income that the airport shall make and also promote sustainability. The researchers state that due to the competitive nature of the current environment, higher satisfaction with regard to the service offered by the airport shall hence promote customer loyalty, lead to repurchasing and positive outcome on the airport's profitability (Sulankey *et al.* 2017:5). Furthermore, customer satisfaction is seen for customers in services that are provided to customers and that go beyond the prior expectations of the customers (Sulankey *et al.* 2017:5). Sulankey *et al.* (2017:5) use the example of airports providing airport terminal experiences such as prayer rooms, museums, eateries, conference rooms, smoking areas, airline offices and many others to their customers. The researchers (Sulankey *et al.* 2017:5) state that providing such services exceedingly well can help in the development and innovation of the airport especially if the services differentiates the airport from competing rivals.

According to Njoroge and Iraki (2017:139), some elements that influence the satisfaction of a customer from the quality of the airport service provided include "ambient conditions, cleanliness of the airport, availability of food and beverage offerings, interior and exterior design or décor, spatial layout, functionality of equipment, physical facilities and employee involvement".

## **2.7 SUMMARY AND CONCLUSION**

The aim of this chapter was to determine the impact of service quality on customer satisfaction. This chapter therefore began with a brief overview of the tourism industry. The literature found out that there are eight sectors in the tourism industry and each of these sectors were touched in detail. These sectors include; accommodation, adventure tourism and recreation, attractions, food and beverage, tourism service, transportation, events and conferences, and travel trade. It was discovered that these sectors all depend on one another in their provision of services. The transportation sector was made up of four different types of transportation which included the road, rail, air and water. Airport

was determined to be important in air transport as that is where everything concerning air transport start and airports strive to provide great service quality to their customers due to competition in the transport sector and from various airports.

The different characteristics of a service products or services were identified which are intangibility, inseparability, heterogeneity and perishability. Each of these characteristics where discussed looking at how they could be related to airports. Intangibility was described as the inability to touch a service product; inseparability looked at the correlation between the service produced and consumed; heterogeneity meant the inability to keep a service the same and; perishability looked at the inability to preserve or stock the service once provided.

Service quality was thereafter discussed, and it was established that service quality has an indirect and direct influence on the organisation. An organisation's service quality also influences customers satisfaction when it applies the service quality dimensions. These dimensions are requisites for providing service quality for customers. Insight on these service quality dimensions which include; reliability, tangibility, responsiveness, assurance, empathy, convenience and complaint handling was provided, and the literature also elaborated on how these dimensions are applied in an airport context.

The chapter finished by looking at customer satisfaction. It was mentioned that customer satisfaction was the difference between a customer's perception before receiving a service or product and after receiving it. Research mentioned the importance of customer satisfaction to airports as this encourages customers to be loyal to the airport, prompt them to spread good words about the airport and recommend it to others. Customer satisfaction was therefore for organisations and airports in particular and have to be achieved by providing quality services to its customers.

An overview of the research design, data collection and analysis shall be discussed in the following chapter. This chapter will include a brief discussion on secondary and primary

data collection and how such data can be sourced, population, sample frame, sample, sampling techniques and the research instrument used for the study.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 INTRODUCTION**

Chapter two provided an overview of the tourism industry, the characteristics of service products, the service industry and its dimensions. In addition to the above, the chapter addressed customer satisfaction in depth and how customer satisfaction depended on the service quality customer received. The chapter finished with a summary and conclusion.

In chapter three, the concepts of research design and methodology will be discussed and then a stand shall be taken on what method and design is used or implemented in the treatise. The study shall also provide information as to what instrument shall be used in collecting primary data and how the instrument shall be structured. The chapter shall finish by taking a stand on what method shall be used in analysing the data captured.

#### **3.2 RESEARCH DESIGN**

Research design refers to a framework that stipulates the way information is acquired and analysed for research purposes (Zikmund *et al.* 2013:64; Adams, Khan, Raeside & White 2007:81). Collis *et al.*(2014:59) define research design as the method chosen to be used with the aim of providing a response to the research questions. Hence research design deals with the various methods of collecting information and analysing the information for the research.

#### **3.3 RESEARCH APPROACH**

Various researchers (Collis *et al.* 2014:2; Zikmund, Babin, Carr & Griffin 2013:5) define research as a structured method used in acquiring and analysing information with the aim of being more knowledgeable and getting the truth about a particular event or situation. Research can be done using either a quantitative or qualitative research or a combination of the two (Newman 2013:16; Struwig *et al.* 2013:3). These research methods shall be discussed below.

### **3.3.1 Quantitative Research**

A quantitative research is a research which involves the use of valid processes to acquire information from a well selected sample that represents the population (Struwig *et al.* 2013:3). This type of research involves using an empirical evaluation or investigation through the use of numbers to do its measurement and analysis (Zikmund *et al.* 2013:134). Struwig *et al.* (2013:4) go further to state that this research approach is mainly used in testing a theory often referred to as a hypothesis. A quantitative research is often considered to be positivist, which is “a research paradigm (framework) that combines a deductive approach with a precise measurement of quantitative data so researchers can identify the casual law to help predict human behaviour” (Struwig *et al.* 2013:5). A quantitative research is an approach which collects numerical data from a sample used in testing a hypothesis.

### **3.3.2 Qualitative Research**

Qualitative research is research that looks into the objectives of the study by using techniques that enable the researcher to make interpretations of the information acquired without using any of the numerical methods. The aim of this research is to discover new information or carry out an in-depth analysis of a study (Zikmund *et al.* 2013:132). Collis *et al.* (2014:45) state that an interpretivists will implement a qualitative research approach in getting information or data. Interpretivism is a research paradigm that deals with providing an interpretation to what the researcher has understood about an event based on a particular situation. Therefore, a qualitative research approach deals with the interpretation of information or data which is acquired, and it is used most often by an interpretivist.

### **3.3.3 Selection of Research Approach to Use**

From the above, it can be seen that research can be done by using either a qualitative or quantitative approach. For the purpose of this study, a quantitative research approach shall be used.

### **3.4 RESEARCH DESIGN TYPOLOGIES**

Three research approaches exist, namely, exploratory, descriptive and casual research (Babbie & Mouton 2001:79). These different approaches will be discussed in more detail in the following sections.

#### **3.4.1 Exploratory Research**

According to various researchers (Collis *et al.* 2014:4; Struwig *et al.* 2013:6), an exploratory research is carried out when the researcher aims at coming up with new knowledge or developing and posing a question on the research. The latter adds that this research approach is predominantly used in analysing a problem in which there is little or no in-depth information about it. Researchers (Burns & Bush 2014:73; Varughese 2016:1) back this up by stating the reasons for performing an exploratory research which includes; to acquire background knowledge about the research problem, to identify the key terms and define them, to determine a problem at stake and to construct the hypothesis and establish the priorities for the research. An exploratory research can be carried out by using various methods which include the using of either case analysis, focus groups or survey (questionnaires) (Burns *et al.* 2014:74; Struwig *et al.* 2013:7).

#### **3.4.2 Descriptive Research**

Descriptive research refers to a research that tries to describe an event or a phenomenon. This type of research is aimed at providing a precise and accurate description of something (Collis *et al.* 2014:4; Struwig *et al.* 2013:7). Collis *et al.* (2014:4) go further and state that this research is done to determine the characteristics of a relevant matter. According to researchers (Burns *et al.* 2014:75; Zikmund *et al.* 2013:53), a descriptive research varies from an exploratory research as the former aims at answering the “who, what, when, where, and how questions”. The researchers go on to point out how important it is for such a research to be accurate. Burns *et al.* (2014:75) further state that descriptive research can either be a cross sectional or longitudinal study. The researchers state that “cross sectional studies measure the units from a sample of the population at only one point in time”. A longitudinal study on the other hand is whose sample unites are repeatedly measured for time period (Burns *et al.* 2014:77). A descriptive research

according to Zikmund *et al.* (2013:54) can be done through the use of a survey or a questionnaire.

### **3.4.3 Casual Research**

A casual research is defined by Zikmund *et al.* (2013:54) as a research which is performed with the aim of determining the cause of something and its effect and looking for the possible relationship that exists between both of them. A casual research is performed through the use of experiments. An experiment is a casual research study type where a researcher uses different independent variables to see how these variables influence a dependent variable (Burns *et al.* 2014:79).

### **3.4.4 Selection of Research Design Typologies to Use**

For the purpose of this study, exploratory and descriptive research designs shall be used. The study is descriptive as it will describe the service quality dimensions which can influence customer satisfaction. The research will also be exploratory as it aims to identify which specific service quality dimensions influence customer satisfaction at PEIA.

## **3.5 RESEARCH METHODOLOGY**

A research methodology refers to the strategy that a researcher uses in understanding and answering the research problem (Greener *et al.* 2008:10). Struwig *et al.* (2013:54), add that the research methodology gives a reader an idea or some light as to the path that shall be used by the researcher in answering the main question in the research. The latter go further to state that there exist three types of research methodology; “empirical design methodology, emergent research design and literature based research”. Empirical design methodology is defined as the process of acquiring data and analysing the data with the aim of making a decision. An emergent research methodology is often applied when the research being carried out is new and no methodology has been put in place for such a study. A literature based research is on which is mostly qualitative in nature which is done by analysing already available information (Struwig *et al.* 2013:58).



In this study, an empirical design methodology shall be used, and this methodology includes a number of processes which are discussed below with regards to the study.

### **3.5.1 Data Collection**

Data sources can be classified according to two sources; secondary data collection or primary data collection (Collis *et al.* 2014:196).

#### **3.5.1.1 Secondary Data Collection**

Zikmund *et al.* (2013:160) define secondary data as data that was already gotten for a reason other than the one at hand. Secondary data is data collected from existing sources such as internal records, publications and databases (Collis *et al.* 2014:59). Therefore, less time and resources are taken in obtaining secondary data and there is ease of accessibility to such data (Dunn, Arslanian-Enrogen, DeKoekkoek, Jadack & Scott 2015:1295). Hence, secondary data is any information that was previously made in written or in recording by an individual for a purpose that is not similar with the present purpose.

There are various methods of sourcing secondary data generally used by researchers. These methods include the use of books and journal articles found in libraries, universities and their databases, online databases for example using the Nelson Mandela University Library and its academic databases such as EBSCOhost, Emerald Insight. Other online databases such as the Research Gate, Google Scholar possess important books and journals (Mohajan 2017:6; Struwig *et al.* 2013:82; Zikmund *et al.* 2013:170). Government agencies publications is another source of secondary data where publications are made on websites providing census and annual reports of various issues about the country (Mohajan 2017:6; Zikmund *et al.* 2013:170).

Media sources is another source of secondary data generally used by researchers. Examples of these sources include CNN Financial News, Business Week, newspaper articles and magazines (Mohajan 2017:6; Zikmund *et al.* 2013:174). Trade association sources provide information for particular industries on several topics which are of major

importance to firms. The source here hence provides information which is important to a firm in that particular industry (Zikmund *et al.* 2013:175). Secondary data will be sourced using textbooks, journal articles, government agency publications and media sources. These can be collected or obtained from various places or sources including the Nelson Mandela University library, EBSCOhost, Emerald Insight, Google Scholar, websites and newspapers.

#### 3.5.1.2 Primary Data Collection

According to Salkind (2010:1096), primary data refers to a researcher directly collecting information for a particular reason. Hox and Boeijs (2005:593) state that primary data is which is derived for a particular research problem at stake using the procedures that best suit the problem. Primary data can be collected using various methods which include “surveys, interviews, focus groups, questionnaires and observations” (Ok.gov 2010:1; Collis *et al.* 2014:59). Primary data thus refers to data that is obtained or comes from original sources. For a researcher to collect primary data he/she must make decide on the population, sample frame and sample for the study. These will now be discussed in more detail.

##### a) Population, sample frame and sample

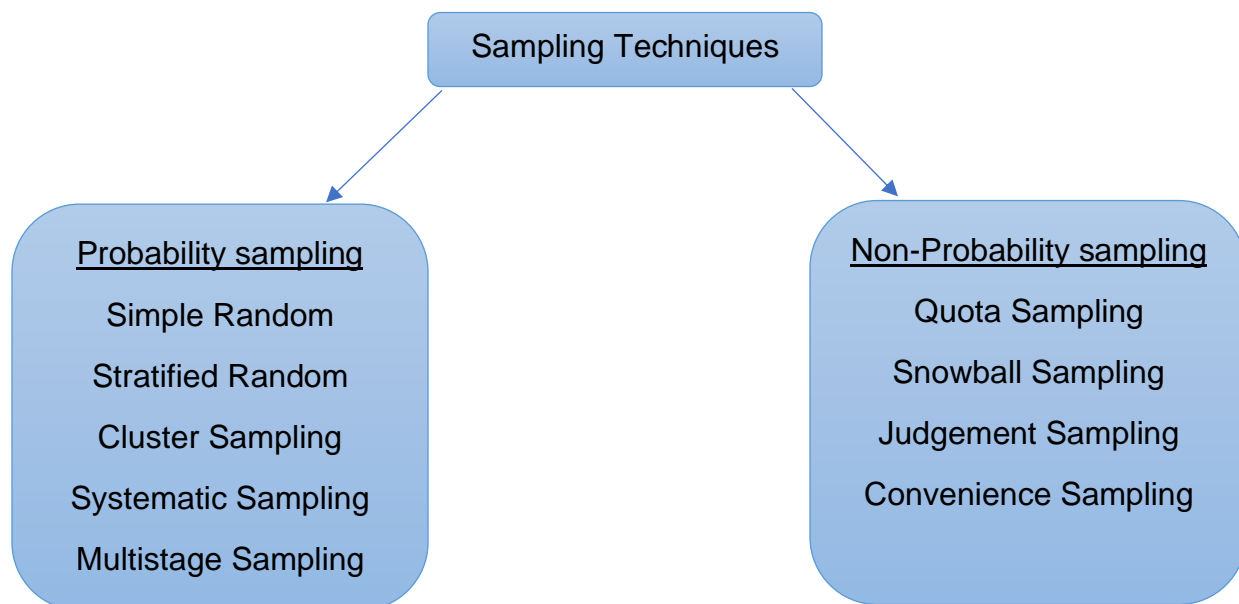
A group of people, items or information from which a sample is taken is known as a population (Horn 2012:104). Clearly defining the population of interest is an important part of a research design, as the way in which it is defined controls the range of deductions ensuing from the investigative endeavour (Litt 2010:1053). Horn (2012:104) emphasises that it is important to state which people or objects are to be included in the population as failing to do can cause problems when conducting research. A large population may prove to be impractical or too costly to collect information from every member. The selection of a random sample can assist in providing a subset of the population that is free from bias. Numerical techniques are used to check whether or not the characteristics of the sample are also present within the population (Collis *et al.* 2014:62). For the purpose of this study, the research population can be coined as anyone who has visited the PEIA. A sample frame is the list of easy to get to members of a population (Horn 2012:104). Alternately,

various researchers (Bryman, Bell, Hirschohn, Dos Santos, Du Toit, Masenge, Van Aardt & Wagner 2014:170) define it as the record of every unit within the population from which the researchers will select a sample. This research study will therefore have no sample frame, as a list of all people that have visited the PEIA does not exist. A sample is a section or part of the population that is chosen for investigation (Bryman *et al.* 2014:170). Due to the inability of the researchers to reach all people that have visited the PEIA, a sample will be selected to represent the population. The sample of this study will only include domestic and international tourists, who have made use of the PEIA's facilities, who are older than eighteen years.

#### b) Sampling techniques

According to Taherdoost (2016:20), sampling techniques are broadly divided into two major sampling techniques; “probability sampling methods and non-probability sampling methods”. The researcher goes further to illustrate the two major techniques and the various types which fall under each of them as depicted in the figure 3.1.

**Figure 3.1: Sampling techniques**



Source: Taherdoost (2016:20).

A probability (random) sampling refers to a sampling where all the elements in the population have a known percentage to be selected or form part of the sample (Greener 2008:48; Taherdoost 2016:20). The different types of probability sampling include simple random sampling, stratified random sampling, cluster sampling, systematic sampling and multistage sampling as illustrated in figure 3.1. Simple random sampling is sampling where there is an equal chance for each and every element of the population to be chosen to form part of the sample (Alvi 2016:16; Taherdoost 2016:20). Taherdoost (2016:21) defines systematic random sampling as sampling where every  $n^{\text{th}}$  case or element is chosen after a random start and is done at regular intervals. Alvi (2016:18) states that this systematic random sampling is done when the population is homogenous. A stratified random sampling occurs when there a population is divided into subgroups depending on the characteristics to enable the random samples to be selected from each of these subgroups (Alvi 2016:21; Greener 2008:49; Struwig *et al.* 2013:119; Taherdoost 2016:21). Cluster sampling refers to sampling where random sample are made by choosing elements residing in each of the various geographical locations or areas (Alvi 2016:23; Taherdoost 2016:21). Multistage sampling refers to sampling where two or more probability techniques are combined because the elements of that population are widely spread geographically making it impossible to get a sample using only one of the above sample techniques (Alvi 2016:25; Struwig *et al.* 2013:120).

Non-probability (judgment or non-random) sampling on the other hand is a sampling technique where there is no equal chance and uncertainty for every element of the population to be selected (Alvi 2016:13; Greener 2008:48; Struwig *et al.* 2013:116). There are different types of non-probability sampling techniques which include quota sampling, snowball sampling, judgement sampling and convenience sampling as illustrated in figure 3.1. Taherdoost (2016:22) states that when doing case study research designs and qualitative research, the non-probability sampling is usually the ideal choice. Convenience sampling is when the participants for a sample are chosen based on their availability and readiness, and how convenient they are to be approached (Alvi 2016:29; Greener 2008:48; Struwig *et al.* 2013:116; Taherdoost 2016:22). A quota sampling is a non-probability sampling method where some prearranged features for a sample are

required and used in choosing the elements from the population to enable equality in the spreading of features between the sample and the population (Struwig *et al.* 2013:117; Taherdoost 2016:22). According to researchers (Alvi 2016:33; Greener 2008:49; Struwig *et al.* 2013:118; Taherdoost 2016:22), snowball or chain sampling is a sampling technique where the investigators approaches one element of the population and uses the information obtained from the later to approach other elements relevant for the research. Purposive or judgemental sampling is a strategy where personal judgements are consciously made by the investigator in choosing a sample (Greener 2008:49; Taherdoost 2016:23).

From the above it can be seen that with probability sampling techniques, random selection is done and there is a non-zero probability of being part of the sample whereas with non-probability sampling techniques, no random selection is done and there is no equal chance of being part of the sample.

#### c) Selection of sampling technique to use

For the purpose of this study, a non-probability sampling technique will be used. The non-probability sampling technique that were used in this research was a combination of convenience sampling. A benefit of using convenience sampling is that a large number of completed questionnaires can be gathered quickly and economically (Zikmund *et al.* 2009:383). The respondents should have had certain characteristics to be included in the sample (older than eighteen years, in possession of a senior certificate). The rationale for the respondent to be eighteen years and older, was to ensure maturity; according to South African law, an individual is considered a major when he/she reaches eighteen years. The respondent had to be in possession of a senior certificate so that the respondents have a sufficient level of education to understand the questionnaire and supply relevant answers.

After drawing a sample for the research, the researcher has to construct a research instrument. In the section that follows, more information shall be provided on the research instrument used in the treatise study.

### 3.5.2 Research Instrument

Research instruments refer to the various tools which are used in collecting data or information to answer a research question (Annum 2018:1; Wilkinson & Birmingham 2003:3). There are various methods that can be used in the collection of quantitative or qualitative data and these methods include an observation, an interview, focus groups, a survey (questionnaire), content analysis and many others. An interview is a data collection tool where the researcher (interviewer) asks questions to an individual to know what that person's own view of a particular situation (Collis *et al.* 2014:133). A focus group refers to a data collection instrument where a selected number of participants share their particular situation guided by a group leader. An observation is a research instrument that deals with observing an action or trait. Content analysis is a quantitative research instrument where qualitative data is converted into a numerical form for it to be used in the research (Collis *et al.* 2014:166).

A survey method is one of the most important sources of data which is used to gather quantitative information about items in a population. Surveys are used in different areas of public and private sectors to collect the data (Ajayi 2017:4). According to Collis *et al.* (2014:62), a survey is a methodology created to gather first-hand or second-hand data from a chosen sample, with the purpose of generalizing the outcomes of a specific populace. A survey is a data-collection method whereby individuals answer questions about their mannerisms, attitudes, viewpoints, or feelings (Mrug 2010:1473). The study being quantitative in nature, a big sample will be necessary, resulting in the choice of a survey research method. The sample size for this study had to be about 200 respondents for exploratory factor analysis (8 factors x 5 point rating scale x 5 items per factor).

The chosen method will call for the use of a structured questionnaire to collect the needed data, which will in turn be statistically analysed and interpreted. According to Collis *et al.* (2014:62), there are a number of methods whereby one can collect survey information for a positivistic study, including "internet and postal self-completion questionnaires, self-administered questionnaires, mobile and in person interviews". In this study, the measuring instrument selected will be a self-administered questionnaire, used to

determine the effect of the independent variable (reliability, tangibility, responsiveness, assurance, empathy, convenience and complaint handling) on the dependant variable (customer satisfaction). Collis *et al.* (2014:205) define a questionnaire as a variety of questions designed to elicit a suitable response from a certain group of people. The aim of a questionnaire is to discover their feelings, thoughts or actions as this will enable the researcher to address his/her research questions. Bryman *et al.* (2014:199) state that one of the most important considerations when developing a questionnaire is whether to use open or closed ended questions when conducting research. This issue is applicable to both structured interview and self-administered questionnaire research. The qualitative or quantitative nature of a study always results in questions being asked in either an open or closed manner.

#### 3.5.2.1 Open Ended Questions

According to Clow and James (2014:322), a great advantage of open-ended questions is that respondents answer from their own unique perspective. And might tend to use their own lingo and terminology, which is different from that of the researchers. Open-ended answers afford researchers with insight about how decisions and attitudes are viewed. This often provides fresh or unusual insights. Maruyama and Ryan (2014:176) add that the downside of open-ended questions are the cost and difficulty of coding responses. In addition, open-ended responses are frequently conflicting, inexplicable, or unrelated and coding such responses meaningfully involves a great deal of work and is sometimes simply unattainable.

#### 3.5.2.2 Closed Ended Questions

A closed ended question requires a respondent to answer either “yes” or “no” ; to answer in a very short factual manner or needs the respondent to choose from a list of predetermined answers (Collis *et al.* 2014:212). The main disadvantage of closed- ended is that respondents are restricted to the answers given in the questionnaire. This forces the respondents to select an answer which exposes data to substantial errors by mixing the opinions of those who are knowledgeable about the subject with the opinions of those who don't have sufficient knowledge about it (Clow *et al.* 2014:13). However, the

substantial advantage of closed ended questions is that they are easy to process and produce meaningful results for analysis (Maruyama *et al.* 2014:177). Closed- ended questions are more suitable for a positivist approach (Collis *et al.* 2014:213). Based on these findings, the measuring instrument used in this study will be a questionnaire consisting of closed-ended question, using a 5-point Likert-scale.

### **3.5.3 Format of Questionnaire**

The questionnaire for this study shall comprise of three sections; Section A, Section B and Section C. Section A of the questionnaire shall focus on the general and biographical information of the respondents. This shall include gathering information on the respondent's age, gender, continent of origin, citizenship of customer, home language, employment status and customer's education level.

Section B shall possess a number of questions that focus on determining the impact of the seven service quality dimension on customer satisfaction in the PEIA. These service quality dimensions as discussed in the previous chapter include; reliability, tangibility, responsiveness, assurance, empathy, convenience and complaint handling. Each of the dimensions shall possess a maximum of seven items which shall be related to customer satisfaction at the PEIA. Section C shall look at the dependent variable, customer satisfaction. This section shall be used to determine if the outcome of customers were what he or she perceived from the airport.

Sections B and C shall use the "5-point Likert-scale" in determining and measuring the view of the respondents about the service quality dimension and its effect on the customer satisfaction at the PEIA. The "5-point Likert Scale" shall range from 1-5 as follows; 1 implying that the respondent "strongly disagrees", 2 implying that the respondent "disagrees", 3 implying that the respondent is "neutral" and neither agrees or disagrees, 4 shall mean that the respondent "agrees" and 5 implying that the respondent "strongly agrees". A copy of the questionnaire is provided in Appendix A of the treatise.



The statements measuring the service quality dimensions and customer satisfaction are shown in Tables 3.1 and 3.2 respectively.

**Table 3.1: Service quality dimensions**

<b>RELIABILITY</b>	<b>Sources</b>
Proper security screening measure was implemented.	Sindhav, Holland, Rodie, Addiam and Pol (2006:324).
Security screening was done with dignity.	
Setting at the airport were comfortable and convenient (familiarity).	Smahel (2017:34).
Basic facilities such as bathrooms were available.	Hoang, Thu, Ha and Quy (2016:46).
Luggage handling services were provided.	
Check-in process was done efficiently.	Bezerra and Gomes (2016:88).
Services performed by employees were efficient.	Adeoye (2012:16).
<b>TANGIBILITY</b>	<b>SOURCES</b>
Equipment used by airport was in good condition.	Berndt and Tate (2014:56).
The airport employees are suitably dressed and neat.	McCollin, Ograjensek, Gob and Stuub (2011:72).
The airport had well designed information displays.	Fodness and Murray (2007:8).
The services provided by the airport are appealing.	Alhkami and Alarussi (2016:117).
The airport is visually appealing.	
<b>RESPONSIVENESS</b>	<b>Sources</b>
Employees are quick to respond to customer request.	McCollin, Ograjensek, Gob and Stuub (2011:72).
Employees provide exceptional service.	Subha and Archana (2013:30).
Employees respond timeously to service failures.	La and Kandampully (2004:394); Boshoff and Staude (2003:11).
Communicate with customers when flights are delayed.	Alhkami and Alarussi (2016:119).
<b>ASSURANCE</b>	<b>Sources</b>
Employees show high levels of skill when dealing with customers.	Balakrishnan, Musthan and Chandra (2013:9).
Curtesy is shown to the customers by the employees.	Adeoye (2012:16).

The employees are knowledgeable enough to answer customers' questions.	Pabedinskaite and Akstinaite (2014:406).
Employees are perceived to be trustworthy.	Berndt and Tate (2014:57).
<b>EMPATHY</b>	<b>Source</b>
Employees provide customers with individual attention.	Hussin, Razmin, Azziz and Sabandan (2017:3).
Employees provide assistance to the specific needs of customers.	Alhkami and Alarussi (2016:123); Sulankey and kazimoto (2017:9).
Airport employees are accommodating.	
Customers are the main priority of the airports' employees.	
The supplementary services of an airport operate at convenient hours for customers.	
<b>COMPLAINT HANDLING</b>	<b>Sources</b>
Employees handle complaints as fast as possible.	Metwally (2013:305).
Employees try to mitigate complaints.	Di Pietreo, Mugion, Pantouvakis, Patsioura, Toni & Renzi (2015:20).
Airport staff inform employees that their complaints have been received.	Metwally (2013:305).
Airport staff provide customers with feedback about complaints.	Metwally (2013:307).
Corrective actions are taken by airport staff in response to complaints.	Di Pietreo, Mugion, Pantouvakis, Patsioura, Toni & Renzi (2015:20).
<b>CONVENIENCE</b>	<b>Sources</b>
The airport has a variety of stores.	Bezerra and Gomes (2016:88); Burning, Hu and Hao (2009); Kratudnak (2018:1778).
Financial Services are easily accessible at the airport.	
Employees are always available to respond to the customers' requests.	
Information is easily obtained at the airport.	Berry, Seiders and Grewal (2002:4).
Employees are polite and approachable.	Bezerra and Gomes (2016:88); Kratudnak (2018:1778).

**Table 3.2 Customer satisfaction**

<b>CUSTOMER SATISFACTION</b>	<b>Sources</b>
I was satisfied with the level of service delivery at the airport.	
I was satisfied with the quality of services rendered at the airport.	Jamkatel (2018:70); Sulankey and Kazimoto (2017:7).
I was satisfied with the cleanliness at the airport.	Njoroge and Iraki (2017:139).
I was satisfied with the level of employee involvement at the airport.	
I was satisfied with the functionality of the equipment at the airport.	
I was satisfied with the availability of essential services (prayer rooms, eateries, conference rooms, smoking areas, airline offices).	Sulankey and Kazimoto (2017:5).

Struwig *et al.* (2013:136) emphasise how important it is in quantitative research for the research instrument to be both reliable and valid. According to Bryman *et al.* (2014:36), reliability focuses on how dependable a measure is. Struwig *et al.* (2013:138) reiterate this definition by defining it as the accuracy of test scores. A measure is considered to be dependable if someone else repeats the same research and obtains similar findings (Collis *et al.* 2014:275). According to Murayama *et al.* (2014:192), validity refers to whether or not a theory does what it is intended to do. Struwig *et al.* (2013:143) add that external validity is known as the extent to which a study can be applied to other environments. Internal validity on the other hand, refers to the problem of whether or not the independent variable is responsible for variations in the dependant variable and no other external variables (Struwig *et al.* 2013:143). Struwig *et al.* (2013:142) stress the importance of ensuring that a design is valid when designing quantitative research.

A pilot study was carried out to test the questionnaire and its items before it was distributed to the stated sample.

### **3.5.4 Pretesting of the Questionnaire**

The questionnaire should be pre-tested prior to distribution to the sample for data collection by conducting a pilot study. According to various researchers (Zikmund *et al.* 2013:63; Welman, Kruger & Mitchell 2005:148), a pilot study is a small scale study which aims at collecting data from respondents who are similar to the respondents used for the

full study. A pilot study is useful in; determining how well phrased the questions; determining the relevance of the questions by pretesting for reliability and validity; ensuring that there are no flaws in the questionnaire and; refining the objectives of the study if necessary.

The validity of the measuring instruments is done by performing a face validity and a content validity. A face validity is done to determine if the items of the questionnaire measure its proposed concept. The measurement of the face validity is done by professionals in the field of the study who do a general assessment of the questionnaire and provide feedback on the questions (Struwig *et al.* 2013:146; Zikmund *et al.* 2013:303). Face Validity was ensured by having the measuring instruments scrutinised by experts in the fields of marketing (1), consumer behaviour (1) and tourism (3) at Nelson Mandela University. A content validity is done to determine if the items covers the concept which is being examined for the study (Struwig *et al.* 2013:146; Zikmund *et al.* 2013:304). Hence the content validity is determined by ensuring that the items available in the measuring instrument come from or originate from the literature section of the study.

To ensure reliability in the questionnaire used for the study, a pilot test was carried out with the questionnaire on a sample of 30 respondents. For initial reliability, the Cronbach's alpha coefficient for the service quality dimensions and customer satisfaction was calculated to determine the internal consistency of the scale items. Table 3.3 presents the results if the pilot study.

**Table 3.3: Cronbach's alpha values of the pilot study**

Variables	Cronbach's alpha
Tangibility	0.785
Reliability	0.889
Responsiveness	0.862
Assurance	0.958
Empathy	0.753
Complaint Handling	0.736
Convenience	0.758
Customer Satisfaction	0.855

Zikmund *et al.* (2013:202) state that a value of 0.7 and above is considered good. All the items in the questionnaire for the pilot study had values of 0.7 and above. Nevertheless, upon the pilot study, various items (BR5, BA2) did not load on any item and hence were disregarded from the questionnaire. Items BT4, BRS2 and BR7 were also disregarded from the study as these items cross-loaded in the study. Once the questionnaire was pilot tested, initial validity and reliability confirmed, and all invalid items disregarded, the questionnaire was then administered to the full sample for data collection.

### **3.5.5 Questionnaire Administration**

As stated previously, the data was collected by distributing questionnaires in person to individuals. The questionnaires were distributed in two different ways. Firstly, the researchers obtained permission at the PEIA from the Department of Tourism and from the PEIA management to hand out the questionnaires to individuals who fit the criteria to be considered a valid respondent. The questionnaires were also handed out by the researchers to friends, families and colleagues who were not at the PEIA and were not from Nelson Mandela University but fell under the criteria of a valid respondent and had been to the PEIA.

The data collection started on 12 July 2019 and the last day of data collection was 26 July 2019. A total of 213 questionnaires were handed out to respondents throughout the questionnaire administration process. Of the 213 questionnaires handed to respondents, 203 questionnaires were considered usable for data analysis while 10 questionnaires were disregarded. The questionnaires were disregarded because the respondents left out or did not answer a whole section on the questionnaire and the respondents answered “neutral” or “strongly agree” for all the questions on the questionnaire.

Upon collection and capturing of the data acquired from the questionnaires, the data analysis follows. The process implemented in analysing data is discussed in the following section.

### 3.5.6 Data Analysis

After collecting primary data, this data shall be analysed by means of proper procedures. For the purpose of this study, the primary data acquired from the questionnaire will be captured in Microsoft Excel 2016. Once the data is cleaned, a statistical programme called Statistica shall be used. Statistica is used to analyse the captured primary data and calculate descriptive and inferential statistics from it. Taylor (2018:1) describes descriptive statistics as a statistical branch used in describing various characteristics of the population being studied. According to Greener (2008:59), descriptive statistics can be calculated by measuring the mean, mode or median which are measures of central tendency or by measuring the “range, inter-quartile range or standard deviation” which are measures of dispersion.

### 3.5.7 Validity

Collis *et al.* (2014:53) define validity as the ability of a test which is being measured to be accurate and the ability of the outcome to prove what was said in the study. Struwig *et al.* (2013:17) emphasise that validity determines “the truth or trustworthiness of the findings”. Validity in a business research can be approached in four different ways which include through “face validity, content validity, criterion validity and construct validity” (Collis *et al.* 2014:53; Struwig *et al.* 2013:146; Zikmund *et al.* 2013:303). Face validity deals with the researcher ensuring that the tests used in a research are for testing what it has to test. Content validity looks at the degree to which the measure covers the scope of the measurement. Criterion validity refers to the ability of the measures used in the research to be put in practice and used in similar research. Construct validity exists when a measure is reliable and applies to a particular concept (Greener 2008:37; Struwig *et al.* 2013:149; Zikmund *et al.* 2013:304). For a researcher to determine the construct validity of a test score he/she has to use a factor analysis (Struwig *et al.* 2013:149).

#### 3.5.7.1 Factor Analysis

According to Zikmund *et al.* (2013:595), factor analysis refers to “a prototypical multivariate, interdependence technique that statistically identifies a reduced number of factors from a large number of measured variables”. Various researchers (Struwig *et al.*

2013:149; Yong & Pearce 2013:79; Zikmund *et al.* 2013:595) state that there exists two types of factor analysis “exploratory factor analysis (EFA) and confirmatory factor analysis (CFA)”.

An EFA is used when a researcher wants to determine the variables that correlate with each other and to also identify how many factors influence the particular variable(s) (Struwig *et al.* 2013:149; Yong *et al.* 2013:80; Zikmund *et al.* 2013:595). Yong *et al.* (2013:85) state that the eigenvalues and scree test can be used in determining the number of factors. Zikmund *et al.* (2013:596) add to this by stating that the number of factors shall depend on the eigenvalues which are greater than 1.0. Eigenvalues measure the amount of variance found in the respective factors. For EFA to have an adequate interpretation, it must determine its loadings. A factor loading determines the strength of the relationship between the variables being measured and the factor (Zikmund *et al.* 2013:596). A CFA on the other hand, is used when a researcher wants to see if the data collected matches with his/her theoretical model (Struwig *et al.* 2013:149; Zikmund *et al.* 2013:59). Struwig *et al.* (2013:150) continue by stating that CFA hence “confirms or disconfirms the predicted latent variable structure”.

For this study, an EFA shall be used to test validity. According to Hair, Anderson, Tatham and Black (2006:113), the minimum desirable factor loading to retain items is 0.30. However, factor loadings of 0.40 are considered more valid. For this reason, the study adopted a cut-Off point at 0.40 factor loadings. All variables with a factor loading of less than 0.40 will not be considered for any future statistical analysis. In addition, should a variable have a factor leading of 0.40 or higher and that same variable loaded onto a different factor (cross-loading), that variable will be disregarded (Zikmund *et al.* 2009:594). Furthermore, items per construct in an EFA should have three to four items loading onto each construct for it to be considered valid (MacCallum, Widaman, Zhang & Hong 1994; Raubenheimer 2004).

### 3.5.8 Reliability

Reliability refers to a situation where the test scores of a research measurement are both consistent and accurate and can provide the same information or results if the test is carried out again (Collis *et al.* 2014:52; Struwig *et al.* 2013:138). Zikmund *et al.* (2013:301) support by stating that a measure is said to be reliable if it shall provide similar outcome if tested multiple times. According to various researchers (Collis *et al.* 2014:275; Struwig *et al.* 2013:139; Zikmund *et al.* 2013:302), the reliability of a measure can be determined using many methods or tests which can be divided into internal consistency reliability and external reliability. Internal consistency reliability includes “the split-half reliability and the Cronbach’s alpha coefficient” whereas the external reliability includes “test-retest reliability and parallel-forms reliability”.

#### 3.5.8.1 External Reliability

An external reliability consists of asking the same respondents to fill in a questionnaire again some days later (Collis *et al.* 2014:275). As stated above, an external reliability can be done using the test-retest or parallel-forms reliability methods. A test-retest reliability is done by testing one respondent twice over a period of time with the aim of determining how similar the results are (Collis *et al.* 2014:275; Struwig *et al.* 2013:139; Zikmund *et al.* 2013:302). Struwig *et al.* (2013:140) state that the parallel-forms reliability is a way of testing reliability where an individual(s) is provided with the same measure which has only been rephrased in a different way to prevent the respondent from choosing a certain answer based on what they remember from the previous test.

#### 3.5.8.2 Internal Consistency Reliability

Internal consistency reliability is another way which tests reliability by determining if there is a similar meaning for all the test items (Collis *et al.* 2014:275; Struwig *et al.* 2013:140; Zikmund *et al.* 2013:302). As stated above, internal consistency reliability can be done using the split-half reliability or Cronbach’s alpha coefficient method. A split-half reliability is a method whereby the test is split equally into two, each of the halves being allocated with items and checking their results against each other (Collis *et al.* 2014:275; Struwig *et al.* 2013:140; Zikmund *et al.* 2013:302). According to Collis *et al.* (2014:275), the



Cronbach's alpha coefficient is a way of testing reliability where all items which correlate or are correlate or are similar or related across the sample are grouped together and their average is considered to be the reliability index. Zikmund *et al.* (2013:302) state that the "coefficient alpha ranges in values from 0, meaning no consistency, to 1, meaning complete consistency". The later go on to state that the level of reliability here depends on the coefficient alphas ranging as illustrated in Table 3.3 below.

**Table 3.4: Coefficient alphas ranging guideline**

Coefficient alphas ranging	Level of reliability
< 0.60	Poor reliability
0.60 to 0.69	Fair reliability
0.70 to 0.79	Good reliability
0.80 to 0.95	Very good reliability

Source: Adapted from Zikmund *et al.* (2013:302)

Various researcher (Collis *et al.* 2014:275; Struwig *et al.* 2013:141; Zikmund *et al.* 2013:302) highlight that the Cronbach's alpha coefficient is the most used test in determining the internal reliability. The latter also emphasise the fact that this method is most often used when the researcher applies Likert-type scale in the study. This study will adopt a Cronbach's alphas coefficient cut-off point of 0.70 as it is considered to be good reliability.

From the above discussion, it can be observed that there are various means of testing reliability in a study. Given the fact that a Likert-type scale is used in this study, the Cronbach alpha coefficient shall be used in testing the reliability.

### 3.5.9 Inferential Statistics

Inferential statistics refers to the statistical method where the quantitative data which is acquired from a random sample is being used in taking a stand about the population (Collis *et al.* 2014:261). Inferential statistics is done using two tests which are the parametric and the non-parametric tests. According to researchers (Collis *et al.* 2014:261; Struwig *et al.* 2013:168), the inferential statistics parametric test that analysis if there is a correlation between the variables can use the Pearson product-moment correlation

coefficient, multiple regression or canonical correlation. Pearson product-moment correlation and the multiple regression shall be discussed in detail in the following sections.

#### 3.5.9.1 Pearson Product-moment Correlation

Various researchers (Chee 2015:2; Struwig *et al.* 2013:168) state that the Pearson product-moment correlation (Pearson  $r$ ) is used to determine the relationship that exist between two linear variables. The researchers go on to state that the aim of this method is to determine the strength of the relationship that exists between the both variables. Pearson's  $r$  can vary from -1.00 to +1.00 with the former referring to a perfectly negative relationship and the latter referring to a perfectly positive relationship. When Pearson's  $r$  is 0, this means that there is no relationship between the two linear variables (Struwig *et al.* 2013:168). Chee (2015:3) states that the advantage of this technique is that it measures the strength of the relationship that exists between the two linear variables whereas the disadvantage of this techniques is its inability to identify varying relationships. Cohen (1998:77) advances seminal guidelines in interpreting Pearson product-moment correlation coefficient values ( $r$ ) as summarised in Table 3.5.

**Table 3.5: Correlation coefficient interpretation guideline**

Correlation coefficient values ( $r$ )	Interpretation of correlation
0.10 – 0.29	Small
0.30 – 0.49	Moderate
$\geq 0.50$	Large

Source: Cohen (1988:77)

The result of the Pearson product-moment correlation coefficient were analysed according to the measures presented in Table 3.5. These measures are important as they will indicate how strong the relationships are and between which variables they exist. The results of the Pearson product-moment correlation coefficient values were presented in correlation matrixes.

The Pearson product-moment correlation coefficient was used to measure the correlation among the independent variables (reliability, tangibility, responsiveness, assurance,

empathy, complaint handling and convenience) as well as the dependent variable (customer satisfaction). For the purpose of this study, large correlation coefficients of 0.50 and above will be regarded significant to discuss in relation to the literature.

#### 3.5.9.2 Multiple Regression

This is a technique that deals with analysing and determining the influence of various independent variables on dependent variables (Struwig *et al.* 2013:168; Zikmund *et al.* 2013:586). Collis *et al.* (2014:282) adds to this by stating that this technique is used in measuring or determining a dependent variables outcome with the use of various independent variables. In the study, this technique shall be used by determining how the independent variables which include reliability, tangibility, responsiveness, assurance, empathy, convenience and complaint handling shall influence the outcome of the customer satisfaction which is the dependent variable. According to Struwig *et al.* (2013:169), a researcher can determine the strength of the relationship between both variables through the use squared multiple correlation ( $R^2$ ). For the purpose of the study, multiple regression was used to determine which independent variables have a significant influence on the dependent variable. Regression analysis was utilised to determine which of the hypotheses are supported or rejected based on data collected. According to Mugenda and Mugenda (2003:142), when a t-value of a construct is less than 1.96 at a significance level of 0.05 or between 1.96 and 3.09 at a significance level of 0.001, the null hypothesis is rejected. The results of the multiple regression analysis were analysed based on these measures.

It can be seen from the literature that data has to be collected and processed for a conclusion to be drawn. For this to be done the right way, the researcher has to take ethics into consideration. The ethical considerations in research will be discussed in the section that follow.

### 3.6 ETHICAL CONSIDERATIONS

Greener (2008:40) states that ethics relates to a set of choices made which are perceived to be acceptable or not, and that affects the decisions, standards and behaviour of an

individual. According to Struwig *et al.* (2013:68), ethical considerations is important to prevent researchers from various unethical actions. These unethical actions include; failing to keep the identity or the information of the respondents private, creating data that does not exist, using someone else's work without recognising them (plagiarising), not using the appropriate methods in carrying out the research and lying to people.

For this study to be considered ethical, it had to follow ethics principles that were established by the Nelson Mandela University Ethics Committee and by completing and submitting Form E (Annexure 2). The respondents of the study were informed of the purpose and goal of the research and they approved to this by providing their voluntary consent. The respondents were also informed that the information they provided was going to only be used only for this study. To ensure that the identity of each and every respondent was not revealed, the respondents were not required to provide any private information about themselves. More importantly, as required by the Nelson Mandela University Ethics Clearance review process, the researcher remained cognisant of the prescribed guidelines of The Belmont Report of 1979 throughout the research process.

### **3.7 SUMMARY**

From the literature, this chapter specified that a quantitative research methodology shall be implemented for this study. This shall involve acquiring primary quantitative data using a questionnaire that shall be handed out to a population sample. Information was also provided with regard to the population, the sample frame and the sample. The research indicated that the population for the study shall include anyone who had ever visited the PEIA and was eighteen years and above. The sampling technique that shall be used is the convenience sampling technique.

The questionnaire shall comprise of two sections, section A, being the demographics section and section B, carrying the various question on the service quality dimensions. The questionnaire shall be done using the Likert-type scale which ranges from 1-5 where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. The research also stated the importance of reliability and validity in the study. To ensure that

this is the case the Cronbach alpha coefficient and an EFA shall be used respectively in testing the reliability and validity of the data being acquired. This primary quantitative data after being collected shall be analysed using a multiple regression given that the aim of the research is to determine the strength of the influence of the independent variables on the dependent variables. The literature finished by stating how important it is for the researchers to be ethical when carrying out the research and also to ensure that the respondent's identity is kept private. In chapter four, the empirical findings shall be discussed.

## **CHAPTER FOUR**

### **EMPIRICAL RESEARCH FINDINGS**

#### **4.1 INTRODUCTION**

Chapter three explained the research design and methodology, which was adopted in this study. In chapter three, a decision was made subsequently regarding the sample and the method which was used in acquiring or generating data for the research. Chapter three also provided an in-depth discussion about the technique that was used in analysing the data acquired through the questionnaires and the various test which were implemented in determining the validity and reliability of the research, respectively.

This chapter provides the results of the empirical research that was conducted on 203 respondents. In this chapter, the results are presented in tables or figures and will be followed by discussions interpreting the results of the research.

The chapter firstly presents the demographics of respondents. Thereafter the results from the EFA factor extraction and the results from the tests which were carried out to determine the validity and reliability of the research instruments which were developed to measure the relationship between the independent variables (service quality dimensions) and the dependent variable (customer satisfaction). The results of the Pearson product-moment correlation coefficients and the multiple regression coefficients tests will then be presented.

#### **4.2 DEMOGRAPHIC INFORMATION**

The demographic information reported in this section will be based on the findings from the questionnaire on all the questions found in Section A of the questionnaire (Appendix A). Table 4.1 provides the demographic information of the 203 respondents.

**Table 4.1: Demographic information of the respondents**

Variable	Indicators	Percentage
Citizenship	South African citizen	73%
	Foreign citizen	27%
Continent residing on	Africa	91%
	Asia	1%
	Europe	7%
	North America	1%
Gender	Female	47%
	Male	53%
Age group	18-25	55%
	26-35	21%
	36-45	8%
	46-55	8%
	56-65	6%
	66+	2%
Home language	Afrikaans	11%
	English	44%
	Xhosa	15%
	Zulu	3%
	Other	27%
Employment Status	Full-time employed	30%
	Part-time employed	6%
	Self-employed	11%
	Retired	1%
	Student	48%
	Unemployed	4%
Education	School exit level certificate	15%
	Certificate	6%
	Diploma	12%
	Degree	44%
	Post-graduate degree	23%

From Table 4.1, it can be seen that most of the respondents were South African citizens (73%) while foreign citizens accounted for 27% of the sample. Most of the respondents resided in Africa (91%), while 7% of the respondents reside in Europe and 1% of the respondents respectively reside in Asia and North America.

Of the 203 respondents, 47% of them are females and 53% of the respondents are males. More than half of respondents fall under the age group of between the ages of 18 to 25 years (55%), followed by the age group of 26 to 35 years (21%). The lowest response rates were under the age group 66 years and above (2%). This could be that people over the age of 66 years travel less. This trend is confirmed by Statistics South Africa (2018:6), which indicates that this age group travels less in comparison to the other age groups. As

per the table above, 44% of the respondents have English as their home language, while 15% of the respondents were Xhosa-speaking. 27% of the respondents spoke other languages not included in the questionnaire, these other languages included Shona, Tshivenda, Dutch, Sepedi, French, Sotho, Swahili, Twi, Tsonga, Setswana, Swedish, Chichewa, German, Arabic, Venda, Nsenga, Tonga and Italian.

As can be seen from Table 4.1, less than half of the respondents (48%) were students who completed the questionnaires. This could be due to the fact that the data was collected at the airport during the June - July recess period. Forty-one percent of the respondents were economically active [employed (30%) and self-employed (11%)]. Forty-four percent of the respondents had a degree, while 23% of the respondents obtained a post-graduate degree.

In the following section, the results of the EFA construct extraction and the Cronbach alpha coefficient analyses used in the study to determine the validity and reliability of the measuring instruments will be presented and discussed.

#### **4.3 VALIDITY AND RELIABILITY OF THE MEASURING INSTRUMENT**

A factor analysis extraction was conducted using Statistica version 13.5.0.17 to determine the validity of the various service quality dimensions which influence customer satisfaction at the PEIA. An EFA was conducted with Varimax raw rotation on both the dependent variable (customer satisfaction) and the independent variables (reliability, tangibility, responsiveness, assurance, empathy, complaint handling and convenience). The cut-off point for factor loading was 0.4 and items that loaded with values greater than that was considered acceptable for validity (Hair *et al.* 2006:113). Any items which loaded onto more than one construct were eliminated to enable and improve the reliability of the constructs. The data was also used to calculate the eigenvalues. The eigenvalues are used to determine which of the constructs are eligible to be used and these constructs need to have values greater than 1.0.



After determining the validity of the measuring instruments used for the study, reliability was calculated. The reliability of the data and the measuring instrument was determined by calculating the Cronbach's alpha coefficient. Constructs were deemed reliable if the Cronbach's alpha coefficient values were greater than 0.7 as suggested by Zikmund *et al.* (2013:302).

The following sections will present the results on the EFA, validity and reliability of the independent variables (service quality dimensions) followed by the dependent variable (customer satisfaction). The results of each of the independent variables will be discussed, followed by a discussion on the results of the dependent variable. Each construct's valid items are presented and discussed, along-side their Cronbach alpha coefficients. For presentation purposes, the factor matrix for the independent and dependent variables will be presented separately.

#### 4.3.1 Validity and Reliability of the Service Quality Dimensions (Independent Variables)

The table below presents the factor matrix for the service quality dimensions.

**Table 4.2: Factor matrix for service quality dimensions**

Items	Tan	Rel	Res	As	Emp	CH	Con
BR1	<b>0.648</b>	0.332	0.044	-0.011	0.132	0.151	0.057
BR2	0.357	<b>0.405</b>	0.325	0.332	0.177	0.248	0.009
BR3	0.098	<b>0.760</b>	0.141	0.102	0.196	-0.008	0.106
BR4	0.129	<b>0.739</b>	0.238	0.115	0.157	0.160	0.091
BR5	0.110	<b>0.486</b>	0.193	0.112	0.044	0.299	0.001
BR6	0.289	0.333	<b>0.406</b>	0.186	0.055	0.309	0.003
BT1	<b>0.663</b>	0.074	0.209	0.095	0.327	0.117	0.003
BT2	<b>0.466</b>	0.119	0.201	0.226	<b>0.447</b>	0.061	-0.088
BT3	<b>0.743</b>	0.005	0.249	0.066	0.092	0.040	0.230
BRS1	0.291	0.316	<b>0.604</b>	0.165	0.119	0.301	0.040
BRS2	0.320	0.176	<b>0.551</b>	-0.029	0.166	<b>0.423</b>	-0.009
BRS3	0.116	0.192	<b>0.757</b>	0.116	0.151	-0.089	0.103
BRS4	0.065	0.220	<b>0.581</b>	0.271	0.084	0.243	0.119
BA1	<b>0.455</b>	0.160	-0.120	<b>0.523</b>	0.110	0.053	0.231
BA2	<b>0.602</b>	0.104	0.059	<b>0.484</b>	0.151	0.186	0.130
BA3	0.185	0.100	0.392	<b>0.483</b>	0.172	0.351	-0.002
BA4	0.147	0.096	<b>0.462</b>	<b>0.457</b>	0.259	0.178	0.110
BE1	0.231	<b>0.412</b>	0.395	0.350	0.119	0.283	0.213
BE2	0.016	0.344	0.260	<b>0.521</b>	0.005	0.285	0.279
BE3	0.041	0.321	0.236	<b>0.487</b>	0.144	<b>0.419</b>	0.180

Items	Tan	Rel	Res	As	Emp	CH	Con
BE4	0.062	-0.038	0.231	0.125	0.336	<b>0.487</b>	0.133
BE5	-0.007	0.186	0.229	0.196	0.348	<b>0.497</b>	0.186
BE6	0.064	0.154	0.107	0.157	<b>0.639</b>	0.325	0.122
BE7	0.220	0.162	0.088	0.082	<b>0.752</b>	0.089	0.217
BE8	0.157	0.156	0.122	0.146	<b>0.782</b>	0.132	0.029
BE9	0.157	-0.035	0.245	<b>0.523</b>	<b>0.487</b>	0.055	-0.002
BCH1	0.097	0.071	0.140	<b>0.581</b>	0.251	0.228	0.179
BCH2	0.095	0.303	0.240	<b>0.560</b>	0.273	0.314	0.048
BCH3	0.152	0.164	0.165	0.275	0.082	<b>0.656</b>	0.075
BCH4	0.092	0.115	-0.013	0.150	0.125	<b>0.745</b>	0.229
BCH5	0.111	0.028	0.099	0.107	0.124	<b>0.786</b>	0.079
BC1	0.359	0.064	0.053	-0.091	-0.109	0.186	<b>0.722</b>
BC2	0.010	0.189	-0.074	0.089	0.159	0.043	<b>0.785</b>
BC3	0.044	-0.075	0.236	0.301	0.171	0.155	<b>0.665</b>
BC4	0.004	0.059	<b>0.429</b>	0.276	0.305	0.172	<b>0.544</b>
Explained Variance	3.062	2.726	3.336	3.269	3.062	3.701	2.437
Proportion of total	0.087	0.078	0.095	0.093	0.087	0.106	0.07

Key: Tan= Tangibility, Con= Convenience, Res= Responsiveness, Emp= Empathy, CH= Complaint Handling, Rel=Reliability, As= Assurance.

From Table 4.2, it can be seen that seven constructs were extracted fitting into this main set of service quality dimensions. All these factor loadings had eigenvalues greater than 1. Items BT2, BRS2, BA1, BA2, BA4, BE3, BE9 and BC4 cross-loaded and will be omitted from any further statistical analysis.

#### 4.3.1.1 Tangibility

Table 4.3 recapitulates the results of the EFA which extracted the construct, *Tangibility*, the items that loaded, the Eigenvalue of the construct, as well as the Cronbach's alpha ( $\alpha$ ) of each item and the overall construct.

**Table 4.3: Validity and reliability of the Tangibility construct.**

Eigenvalue:12.57      % of variance = 3.06		Cronbach's alpha = 0.700		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BR1	The atmosphere of the airport was comfortable	0.648	0.451	0.679
BT1	Equipment used by the airport was in good condition	0.663	0.575	0.536
BT 3	The airport is visually appealing	0.743	0.560	0.572

Three items (BT1 – BT3) were originally developed to measure this construct. As can be seen from Table 4.3, two items, BT1 and BT3, loaded as intended. One item BR1 originally intended to measure *Reliability*, also loaded onto this construct. The atmosphere of the airport being comfortable can be associated with *Tangibility* as suggested by Smahel (2017:34), who states that an airport that is designed to improve service delivery and creates a comfortable atmosphere will enhance customer satisfaction.

A total of three valid items were thus retained for the construct, *Tangibility*, with factor loadings ranging between 0.648 and 0.743. This construct had an Eigenvalue of 12.57 and explained 3.06% of the variance in the data. The Cronbach's alpha coefficient of 0.70 indicates that the items measuring this construct are seen as reliable.

As a result of the EFA, *Tangibility* is defined as a well-designed airport that is visually appealing and creates a comfortable atmosphere for customers while maintaining equipment used in the airport in good condition.

#### 4.3.1.2 Reliability

Table 4.4 summarises the results of the EFA which extracted the construct, *Reliability*, the items that loaded, the Eigenvalue of the construct, as well as the Cronbach's alpha ( $\alpha$ ) of each item and the overall construct.

**Table 4.4: Validity and reliability of the Reliability construct**

Eigenvalue:1.16                      % of variance = 2.73		Cronbach's alpha = 0.797		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BR2	The employees show high levels of skill when dealing with customers	0.405	0.609	0.749
BR3	Check-in process was done efficiently	0.760	0.562	0.764
BR4	Services performed by check-in employees were consistent	0.739	0.684	0.724
BR5	Employees try to mitigate complaints	0.486	0.431	0.802
BE 1	Employee provide customers with individual attention	0.412	0.614	0.748

Six items (BR1- BR6) were intended to measure *Reliability* and of the six items, four items (BR2- BR5) as per Table 4.4, loaded onto this construct with factor loadings of 0.4 and above. Item BE1 also loaded onto this construct. Respondents may have interpreted employees provide customers with individual attention (BE1) as related to *Reliability*, since customers expect to receive excellent, consistent service which includes providing customers with individual attention (Adeoye *et al.* 2012:16).

A total of five valid items were thus retained for the construct *Reliability* with factor loadings ranging from 0.405 and 0.760. This construct had an Eigenvalue of 1.160 and explained 2.73% of the variance in the data. The Cronbach's alpha coefficient of 0.797 indicates that the items measuring this construct are seen as reliable.

As a result of the EFA, *Reliability* is defined as the consistent, highly skilled services that airport employees provide to each individual customer by mitigating complaints and providing flawless check-in-services.

#### 4.3.1.3 Responsiveness

Table 4.5 recapitulates the results of the EFA which extracted the construct, *Responsiveness*, the items that loaded, the Eigenvalue of the construct, as well as the Cronbach's alpha ( $\alpha$ ) of each item and the overall construct.

**Table 4.5: Validity and reliability of the Responsiveness construct**

Eigenvalue:1.82                      % of variance =3.34		Cronbach's alpha = 0.786		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BR6	Customers' needs are the main priority of the employees	0.406	0.553	0.753
BRS1	Employees are quick to respond to customer requests	0.604	0.652	0.702
BRS3	Employees are polite	0.757	0.557	0.751
BRS4	Employees are always available to respond to customers' requests	0.581	0.610	0.725

Four items (BRS1- BRS4) were intended to measure *Responsiveness* and as seen on Table 4.5, three of the four items (BRS1, BRS3-BRS4) loaded onto this construct with

factor loadings of 0.4 and above. Item BR6 also loaded onto this construct. Respondents may have interpreted customers' needs are the main priority of the employees (BR6) as related to *Responsiveness* as the ability of airport employees to provide assistance to customers in a timely manner, understand the specific needs of various customers and making them a priority can have an effect on *Responsiveness* as confirmed by Sulankey *et al.* (2017:9).

A total of four valid items were thus retained for the construct *Responsiveness* with factor loadings ranging between 0.406 and 0.757. This construct had an Eigenvalue of more than 1 (1.82) and explained 3.34% of the variance in the data. The Cronbach's alpha coefficient of 0.786 indicates that the items measuring this construct are deemed reliable.

As a result of the EFA, *Responsiveness* is defined as the ability of employees to quickly and politely respond to the requests of customers, while ensuring the needs of customers are their top priority.

#### 4.3.1.4 Assurance

Table 4.6 epitomises the results of the EFA which extracted the construct, *Assurance*, the items that loaded, the Eigenvalue of the construct, as well as the Cronbach's alpha ( $\alpha$ ) of each item and the overall construct.

**Table 4.6: Validity and reliability of the Assurance construct**

Eigenvalue:1.06      % of variance =3.27		Cronbach's alpha = 0.786		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BA3	The employees are knowledgeable enough to answer customer questions	0.483	0.541	0.738
BE2	Employees aid the specific needs of customers	0.521	0.529	0.744
BCH1	Employees are easy to find on the airport floor	0.581	0.536	0.747
BCH2	Employees are perceived to be trustworthy	0.560	0.720	0.645

Four items (BA1- BA4) were originally developed to measure this construct. As can be seen from Table 4.6, only one item, BA3, loaded as intended onto this construct. Item BE2 also loaded on this construct. Respondents may have interpreted employees aid the

specific needs of customers (BE2) as related to *Assurance*. According to Adeoye *et al.* (2012:16), one of the factors that affect the assurance dimension is the attitude that the employee really wants what is best for the client.

Two items, BCH1 and BCH2, originally intended to measure the construct, *Complaint Handling*, also loaded onto this construct. Employees are easy to find on the airport floor (BCH1) and employees are perceived to be trustworthy can be associated with *Assurance* (BCH2). According to Subha *et al.* (2013:30), even though airports are becoming more techno-savvy the personal interaction between customer and airport employee still needs to be given attention as it arguably has the most significant impact on customer satisfaction.

A total of four valid items were thus retained for the construct, *Assurance*, with factor loadings ranging between 0.483 and 0.58. This construct had an Eigenvalue of 1.06 and explained 3.27 of the variance in the data. The Cronbach's alpha coefficient of 0.768 indicates that the items measuring this construct are deemed reliable.

As a result of the EFA, *Assurance* is defined as the ability of employees to aid the needs of customers in a knowledgeable and trustworthy manner and being easily accessible to customers at all times.

#### 4.3.1.5 Empathy

Table 4.7 provides a summary of the results of the EFA for the construct *Empathy*, the that loaded, the eigenvalue of the construct, and the Cronbach's alpha ( $\alpha$ ) for the overall construct.

**Table 4.7: Validity and reliability of the Empathy construct**

Eigenvalue:1.61                      % of variance =3.06		Cronbach's alpha = .779		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BE6	Communicate with customers when flights are delayed	0.639	0.650	0.664
BE7	Proper security screening measures was implemented	0.752	0.537	0.797
BE8	Security screening was done with dignity	0.782	0.681	0.647

Nine items (BE1– BE9) were developed to measure the construct *Empathy*. As it can be seen from Table 4.7, only three of the nine items, BE6 to BE8 loaded onto the construct with factor loadings greater than 0.4.

There were hence three valid items retained for the construct *Empathy* with their factor loadings ranging between 0.639 and 0.782. The construct had an eigenvalue which is greater than 1 (1.61) and explained 3.06% in the variance in the data. The items which are used in measuring this construct can be said to be reliable as the Cronbach's alpha coefficient is 0.779.

As a result of the EFA, *Empathy* can hence be defined as an airport service that provide communication timeously when flights are delayed, implement efficient security screening and in the process, maintain the dignity of customers.

#### 4.3.1.6 Complaint Handling

Table 4.8 epitomises the results of the EFA extraction for the construct *Complaint Handling*, the items that loaded correctly, the construct's Eigenvalue and also the Cronbach's alpha coefficient of each item and for the construct as a whole.

**Table 4.8: Validity and reliability of the Complaint Handling construct**

Eigenvalue:1.40                      % of variance = 3.70		Cronbach's alpha = .798		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BE4	The services at the airport operate at convenient hours	0.487	0.476	0.793
BE5	Employees handle complaints as fast as possible	0.497	0.563	0.766
BCH3	Airport staff inform customers that their complaints have been received	0.656	0.595	0.755
BCH4	Airport staff provide customers with feedback about complaints	0.745	0.640	0.742
BCH5	Corrective actions are taken by airport staff in response to complaints	0.786	0.636	0.743

Five items (BCH1-BCH5) were developed to measure the construct *Complaint Handling*. As can be seen from Table 4.8, only three of the five items (BCH3 to BCH5) loaded on the construct as intended with a factor loading above 0.4. Two items BE4 and BE5, which were originally developed to measure the construct *Empathy* loaded onto the construct *Complaint Handling* with their factor loadings each above 0.40. The service at the airport operates at convenient hours (BE4), and employees handle complaints as fast as possible (BE5) can improve the customer satisfaction of the airport with complaint handling. This can be seen as Negi (2009:31) states that *Complaint Handling* deals with the methods taken to receive, and solve complaints placed by customers in time.

Hence there was a total of five valid items retained for the construct of *Complaint Handling* with the factor loadings ranging between 0.487 and 0.786. The Eigenvalue for complaint handling was more than 1 (1.40), and this explained the total variance of 3.70% in the data. The *Complaint Handling* construct's overall Cronbach's alpha coefficient of 0.798 indicates that the items measuring this construct can be deemed reliable.

As a result of the EFA, *Complaint Handling* can be defined as the ability of the airport to take timeous action with regards to complaints of customers and provide the customers with feedback about their complaint, these services should operate at convenient hours to the benefit of the customers.



#### 4.3.1.7 Convenience

Table 4.9 presents the results of the EFA which extracted the *Convenience* construct, the items that loaded onto the construct, the eigenvalue of the construct and the Cronbach's alpha coefficient for the overall construct.

**Table 4.9: Validity and reliability of the Convenience construct**

Eigenvalue: 1.95                      % of variance = 2.44		Cronbach's alpha = .700		
Item	Statements	Factor loading	Item correlation	Cronbach's alpha after deletion
BC1	The airport has a variety of stores	0.723	0.500	0.630
BC2	Financial services are easily accessible at the airport	0.785	0.571	0.520
BC3	Information is easily obtained at the airport	0.665	0.475	0.644

Four items (BC1-BC4) were developed to measure the *Convenience* construct. As per Table 4.9, it is evident that only three (BC1 to BC3) of the four items loaded correctly onto the construct with their factor loadings ranging between 0.665 and 0.785. The Eigenvalue of the construct is 1.95, and it explained 2.44% of the variance in the data. The Cronbach's alpha coefficient of the *Convenience* construct is 0.700 and this indicates that the items measuring this construct can be considered reliable.

As a result of the EFA, *Convenience* can be defined as an airport's ability to have a variety of stores, accessible financial services and information regarding the airport and have services which are easily obtained.

#### 4.3.2 Validity and reliability of the instrument for the dependent variable

Table 4.10 presents the factor matrix for the dependent variable, customer satisfaction.

**Table 4.10: Factor matrix for the dependent variable**

Item	CS
CS1	<b>0.797</b>
CS2	<b>0.813</b>
CS3	<b>0.692</b>
CS4	<b>0.754</b>
CS5	<b>0.721</b>
CS6	<b>0.552</b>
Explained Variance	3.169
Proportion of total	0.528

Key: CS= Customer Satisfaction

As it can be seen from Table 4.10, one construct was extracted, with the construct having an Eigenvalue greater than 1. All the items loaded correctly with all having factor loadings of greater than 0.4.

#### 4.3.2.1 Customer Satisfaction

Table 4.11 recapitulates the EFA which extracted the dependent variable customer satisfaction, the items that loaded, the Eigenvalue of the construct and the Cronbach's alpha coefficient for the construct as a whole.

**Table 4.11: Validity and reliability of the Customer Satisfaction construct**

Eigenvalue:3.17		% of variance = 3.17		Cronbach's alpha = .804	
Item	Statements Overall I was satisfied with.....	Factor loading	Item correlation	Cronbach's alpha after deletion	
CS1	The level of service delivery at the airport	0.797	0.635	0.758	
CS2	The quality of services rendered at the airport	0.813	0.678	0.749	
CS3	The cleanliness of the airport	0.692	0.540	0.778	
CS4	The employee involvement at the airport	0.754	0.603	0.764	
CS5	The functionality of the equipment at the airport	0.721	0.583	0.769	
CS6	The availability of essential services (prayer rooms, eateries, airline offices and airport lounge)	0.552	0.412	0.823	

Six items, CS1 to CS6, were developed to measure the construct *Customer Satisfaction*. As can be seen from Table 4.11, all the items loaded on the construct with a factor loading of above 0.4.

Factor loadings ranging from between 0.552 and 0.813 were returned for the *Customer Satisfaction* construct's items. The construct had an Eigenvalue greater than 1 (3.17) and the construct explains 3.17% of the variance in the data. The Cronbach' alpha coefficient for *Customer Satisfaction* is 0.804, suggesting that the scale measuring this factor is reliable.

As a result of the EFA, *Customer Satisfaction* in an airport can be defined as providing essential services in a clean environment with functional equipment while maintaining high levels of service delivery.

In the following section, the operationalisation of the independent and dependent variables will be presented.

#### **4.4 OPERATIONALISATION**

Zikmund *et al.* (2013:292) define operationalisation as “the process of identifying scales that correspond to variance in a concept that will be involved in a research process”. The researchers go on to state that the scale is used as a device in providing values corresponding to the various values being tested in the study. This definition is backed by Williamson (2016:1) who explains that operationalisation is the act of defining or explaining a concept or variable to remove any ambiguity and enable it to be measured. Williamson (2016:1) states that the definition which the researcher uses in this instance is influenced by his or her report of the study. Therefore, operationalisation can be used as a way to improve the quality of the results of the study. With the above literature on operationalisation and the importance it holds on a study, Table 4.12 provides the operationalisation of the independent and dependent variables.

**Table 4.12: Operationalisation of the independent and dependent Variables**

Variable	Construct	Operationalisation
<b>Independent</b>		
	Tangibility	A well-designed airport that is visually appealing and creates a comfortable atmosphere for customers while maintaining equipment used in the airport in good condition.
	Reliability	The consistent, highly skilled services that airport employees provide to each individual customer by mitigating complaints and providing flawless check-in-services.
	Responsiveness	The ability of employees to respond to the requests of customers quickly and politely, while ensuring the needs of customers are their top priority.
	Assurance	The ability of employees to aid the needs of customers in a knowledgeable and trustworthy manner and being easily accessible to customers at all times.
	Empathy	As an airport service that provides communication timeously when flights are delayed, implement efficient security screening and in the process, maintain the dignity of customers.
	Complaint Handling	The ability of the airport to take timeous action with regards to complaints of customers and provide the customers with feedback about their complaint, these services should operate at convenient hours to the benefit of the customers.
	Convenience	An airport's ability to have a variety of stores, accessible financial services and information regarding the airport and have services that are easily obtained.
<b>Dependent</b>		
	Customer Satisfaction	Providing essential services in a clean environment with functional equipment while maintaining high levels of service delivery.

Table 4.12 provided the definitions of the independent variables (Tangibility, Reliability, Responsiveness, Assurance, Empathy, Complaint handling, and Convenience), and dependent variable (Customer satisfaction) to match with the items which loaded on the constructs. This hence means that the definitions in Table 4.12 were adjusted to suit the study. In the following section, a descriptive statistics of the study will be provided.

#### 4.5 DESCRIPTIVE STATISTICS

Various researchers (Collis *et al.* 2014:226; Zikmund *et al.* 2013:410) define descriptive statistics as a method used in describing and summarising the quantitative data acquired in a more compressed and suitable form. This method can also be used in identifying a particular pattern which is not visible when using the raw acquired data. According to Collis *et al.* (2014:227), descriptive statistics is used in both a postgraduate and undergraduate level when carrying out research. Descriptive statistics of both the

independent variables (service quality dimensions) and the dependent variable (customer satisfaction) is presented in Table 4.13.

**Table 4.13: Descriptive statistics of the service quality dimensions and dependent variables**

Variable	Factor	Mean	Standard Deviation
Independent	Complaint Handling	3.32	0.70
	Convenience	3.45	0.91
	Assurance	3.77	0.70
	Responsiveness	3.77	0.74
	Tangibility	3.79	0.80
	Reliability	3.83	0.71
	Empathy	3.88	0.79
Dependent	Customer Satisfaction	3.87	0.62

From Table 4.13, it can be seen that most of the service quality dimensions (Assurance, responsiveness, tangibility, reliability and empathy) had mean scores above 3.5 (tending towards 4), which means that the respondents were in agreement that these service quality dimensions influence customer satisfaction at the PEIA. Nevertheless, on average, the respondents were neutral in their perceptions regarding complaint handling (mean score of 3.32) and convenience (mean score of 3.45) influencing (tending towards 3 on the rating scale) customer satisfaction at the PEIA. It can be observed from Table 4.13 that the construct, empathy, had the highest mean score (3.88). This could imply that the respondents regard empathy as a service quality dimension that is most influential in customer satisfaction at the PEIA.

It is evident from Table 4.13 that on average, the respondents agreed (mean score of 3.87) that they are satisfied with the services they received at PEIA. The standard deviation for all the variables of the constructs was low (all less than one), meaning that the responses were fairly similar among the respondents. The following section provides the inferential statistics of this study.

## 4.6 INFERENTIAL STATISTICS

Inferential statistics is a data analysis method used in making observations of a population by using a sample (Collis *et al.* 2014:261; Struwig *et al.* 2013:167). This hence means

that inferential statistics can be used to generate results, and these can be used in making general conclusions of a population through the use of a sample. This study made use of the Pearson product-moment correlation coefficient and multiple regression analysis, the results of these will be presented in the following sections.

#### 4.6.1 Pearson Product-moment Correlation Coefficients

Pearson product-moment correlation coefficient is used to determine the strength and direction between two variables (Chee 2015:2; Struwig *et al.* 2013:168). Pearson product-moment correlations determines or explains the extent of the linear relationship between the two continuous variables. Struwig *et al.* (2013:167) state the Pearson product-moment correlation values range between 1 to -1, where -1 represents a perfect negative relationship between the two continuous variables, and 1 represents a perfect positive relationship between the two continuous variables. Chapter three indicated that Cohen's guidelines for interpreting the Pearson *r* will be used for this study. Table 4.14 is a representation of the Cohen (1988:77) guidelines.

**Table 4.14 : Correlation coefficient interpretation guidelines**

Correlation coefficient values ( <i>r</i> )	Interpretation of correlation
0.10 – 0.29	Weak
0.30 – 0.49	Moderate
≥ 0.50	Large

Source: Cohen (1988:77)

For this study, only coefficients of 0.50 and above which are interpreted as large will be discussed in relation to literature as correlations is not one of the main objectives of this study, nor does it assist in answering the research question. The Pearson *r* was conducted to explore the correlations amongst the dependent (Customer Satisfaction) and the independent variables (Tangibility, Reliability, Responsiveness, Assurance, Empathy, Complaint Handling, and Convenience). The results of the Pearson product-moment correlation coefficient of this study is provided in the Table 4.15.

**Table 4.15: Correlation matrix of the dependent and independent variables**

Variables	CS	Tan	Rel	Res	As	Emp	CH	Con
CS	1.000							
Tan	0.509	1.000						
Rel	0.509	0.395	1.000					
Res	0.499	0.409	0.642	1.000				
As	0.552	0.359	0.575	0.598	1.000			
Emp	0.528	0.401	0.399	0.376	0.472	1.000		
CH	0.379	0.251	0.419	0.447	0.501	0.319	1.000	
Con	0.448	0.268	0.281	0.235	0.318	0.211	0.310	1.000

Key: CS= Customer Satisfaction; Tan= Tangibility; Rel= Reliability; Res= Responsiveness; As= Assurance; Emp= Empathy; CH= Complaint Handling; Con= Convenience

From Table 4.15, it can be seen that *Customer Satisfaction* reported a moderate correlation with *Responsiveness* ( $r = 0.499$ ), *Complaint Handling* ( $r = 0.379$ ) and *Convenience* ( $r = 0.448$ ). *Customer Satisfaction* reported a large correlation with *Tangibility* ( $r = 0.509$ ), *Reliability* ( $r = 0.509$ ), *Assurance* ( $r = 0.552$ ) and *Empathy* ( $r = 0.528$ ). These large relationships are supported by Kundi, Khan, Qureshi, Khan and Akhtar (2014:24) and Ayieko (2015:11) who state that regardless of the service offered, *Reliability*, *Assurance* and *Empathy* have an important role to play in influencing a customer's level of satisfaction. According to Kim and Lee (2011:237), *Tangibility* has a strong influence on *Customer Satisfaction* in the facility and equipment based industries, such as airports.

As per Table 4.15, *Tangibility* reported a weak correlation with *Complaint Handling* ( $r = 0.251$ ) and *Convenience* ( $r = 0.268$ ), and moderate correlation with *Reliability* ( $r = 0.395$ ), *Responsiveness* ( $r = 0.409$ ), *Assurance* ( $r = 0.358$ ) and *Empathy* ( $r = 0.401$ ).

As per Table 4.15, *Reliability* reported a weak correlation with *Convenience* ( $r = 0.281$ ), and a moderate correlations with *Empathy* ( $r = 0.399$ ) and *Complaint Handling* ( $r = 0.419$ ). *Reliability*, however, reported strong correlation with *Responsiveness* ( $r = 0.642$ ) and *Assurance* ( $r = 0.575$ ). These strong correlations are supported by Mccollin *et al.* (2011:72) who suggest that while customers expect to receive a service that is quick and efficient they at the same time, expect to encounter employees who are willing to attend to their requests without delays regardless of when a request is made (responsiveness). Furthermore, Subha *et al.* (2013:30) add that customers also expect employees to be

capable, helpful, respectful and to understand the specific needs of each customer (assurance).

As per Table 4.15, *Responsiveness* reported weak correlations with *Convenience* ( $r = 0.235$ ), and moderate correlations with *Empathy* ( $r = 0.376$ ) and *Complaint Handling* ( $r = 0.447$ ). *Responsiveness* reported a strong correlation with *Assurance* ( $r = 0.598$ ). This strong correlation is in line with findings of Akpoyomare, Adeosun and Ganiyu (2016:163) who found a strong positive correlation between *Responsiveness* and *Assurance* in a study the authors conducted on airline service quality dimensions and customer loyalty in Lagos.

As per Table 4.15, *Assurance* reported moderate correlations with *Empathy* ( $r = 0.472$ ) and *Convenience* ( $r = 0.318$ ). *Assurance* reported a strong correlation with *Complaint Handling* ( $r = 0.501$ ). This strong correlation is supported by Metwally (2013:308) who suggests that complaint handling by airport employees can be improved not only through training, but also through staff development, which aims to improve employee's interpersonal skills instead of only improving an employee's specific skill set. Metwally (2013:308) adds that training should focus on improving employee's communication skills and increase staff awareness of customers' needs to make complaint handling by airport staff more effective.

As it can be seen in Table 4.15, *Empathy* reported a weak correlation with *Convenience* ( $r = 0.211$ ) and a moderate correlation with *Complaint Handling* ( $r = 0.319$ ). As per Table 4.15, *Complaint Handling* reported a moderate correlation with *Convenience* ( $r = 0.310$ ).

As can be seen in Table 4.15, most of the correlation results indicate a moderate and strong relationship between the dependent, and independent variables. Overall, *Customer Satisfaction* reported the most and strongest relationships with the other variables. This supports the theory behind this study that *Customer Satisfaction* is influenced by the service quality dimensions. The findings of the multiple regression analysis will be provided and discussed in the following section.



#### 4.6.2 Multiple Regression Analysis

Multiple regression analysis is defined by Zikmund *et al.* (2013:586) as an analysis which investigates the effects of various independent variables on a dependent variable concurrently. A hypothesis is rejected when a construct has a critical t-value of less than 1.96 at a significance level of 0.05 or less than 3.09 at a significance level of 0.001 (Mugenda & Mugenda 2003:142). Table 4.16 presents the results of the multiple regression analysis that was conducted to identify the influence of the service quality dimensions on customer satisfaction at the PEIA.

**Table 4.16: Multiple regression results for the service quality dimensions influencing customer satisfaction**

Dependent Variable: Customer Satisfaction $R^2 = 0.517$				Hypotheses Number	Hypotheses
Independent Variables	Beta	t-value	Sig. (p)		
Tangibility	0.209	3.659	0.000*	H <sub>1</sub>	Supported
Reliability	0.103	1.500	0.135	H <sub>2</sub>	Not Supported
Responsiveness	0.101	1.434	0.153	H <sub>3</sub>	Not Supported
Assurance	0.170	2.433	0.016**	H <sub>4</sub>	Supported
Empathy	0.233	4.00	0.000*	H <sub>5</sub>	Supported
Complaint Handling	0.007	0.113	0.910	H <sub>6</sub>	Not Supported
Convenience	0.234	4.381	0.000*	H <sub>7</sub>	Supported

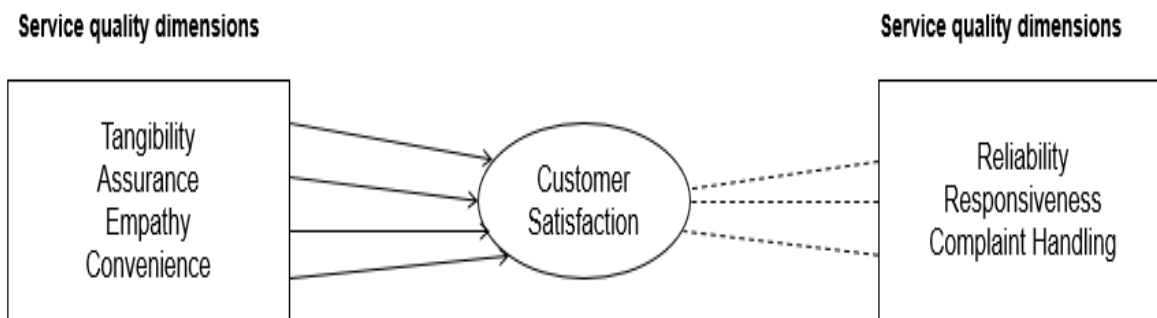
\*p<0.001 \*\*p<0.05

From Table 4.16, it is observed that 52% of the variance in customer satisfaction can be explained by the variances in the independent variables. Evidence of statistical relationships was identified at p=0.001 and p=0.05 among the independent variables (tangibility, assurance, empathy, and convenience), and customer satisfaction (dependent variable). These variables, therefore, influence customer satisfaction. This is also evident from the t-values which exceed the critical value of 1.96 at p<0.05 and 3.09 at p<0.001. Therefore, H<sub>1</sub>, H<sub>4</sub>, H<sub>5</sub>, and H<sub>7</sub> are supported. These independent variables influence customer satisfaction at PEIA. The Beta values for the significant relationships were weak. Given reliability, responsiveness, and complaint handling had a critical value of less than the 1.96 cut-off point, these hypotheses (H<sub>2</sub>, H<sub>3</sub> and H<sub>6</sub>) were rejected. The results suggest that reliability, responsiveness, and complaint handling do not influence customer satisfaction at PEIA. This is not to say that these dimensions are not considered

in customer satisfaction at PEIA, but merely that the respondents do not regard these as that important.

Figure 4.1 is a summary of the multiple regression analysis results for this study.

**Figure 4.1: Summary of the statistical significant results**



Source: Researcher's Own Construct

Figure 4.1 illustrates that the constructs tangibility, assurance, empathy and convenience are the only service quality dimensions that influence customer satisfaction at the PEIA. These service quality dimensions are thus important for PEIA in addressing satisfaction of customers. These can hence increase customer satisfaction at the PEIA. The constructs reliability, responsiveness and complaint handling, on the other hand, are the service quality dimensions which do not influence (to a certain extent) customer satisfaction at the PEIA.

## 4.7 SUMMARY

In this chapter, the results from the empirical research were presented and analysed. Chapter four began by providing a summary of the demographic data collected from 203 respondents. The demographic results showed that the majority of respondents were South African (73%) while foreign citizens accounted for the remaining 23% of respondents. Seven constructs were extracted with Eigenvalues above 0.14. Thereafter, validity and reliability results for the measuring instrument were provided. Exploratory factor analysis was carried out to test for validity and reliability. All seven constructs were

regarded as reliable with Cronbach alpha coefficient of 0.7 and above. Proof of validity was confirmed for the measuring instrument as items with factor loadings of greater than 0.4 were regarded as valid, all items that cross-loaded were disregarded. Based on these results, the operational definitions of the constructs were presented.

Thereafter, the empirical results of the study were presented and discussed. This was carried out by means of undertaking several statistical analyses. Descriptive statistics were used to determine the mean, frequency and standard deviations distributions of the individual responses to the items measuring the factors that were being researched in this study. The Pearson product-moment correlations were then calculated to recognize correlations and relations between the various factors in the study. Multiple regression analysis was conducted to conclude the chapter. It identified the influence of the independent variables (Tangibility, Reliability, Responsiveness, Assurance, Empathy, Complaint Handling and Convenience) on the dependant variable (customer satisfaction) at PEIA.

In the fifth and final chapter of this study a summary will be provided of the chapters discussed. Chapter five will discuss and provide a summary of the empirical data in Chapter four, which will be used to make recommendations on how customer satisfaction can be improved at PEIA. Subsequently, the contributions of the study will be discussed, and the limitations of the study will be outlined. Chapter five will also provide some recommendations for conducting future research.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 INTRODUCTION**

The primary objective of the study was to determine the influence of the service quality dimensions on customer satisfaction at the PEIA. This was achieved by carrying out various steps which included acquiring existing literature on the seven service quality dimensions (which are considered as the independent variables of the study) and customer satisfaction (dependent variable). The primary objective was also achieved by constructing a proposed hypothesis model for the study; illustrating the necessary research design methods used for the study; deciding on the sample size for the empirical study and analysing the acquired data.

In this chapter, a summary of all the findings on the literature review, the research design and methodology and the empirical study will be elaborated upon. Furthermore, the conclusions and recommendations for future research will be provided in this chapter based on the findings also made from the literature review and empirical research. This chapter will also highlight the contributions and limitations of this study. Supplementary areas of study will be identified, and final observations will be given.

#### **5.2 OVERVIEW OF CHAPTERS**

In Chapter one, a brief overview of the study was provided. The chapter provided an introduction to the study and the study's research problem alongside its research questions were established. Brief literature on the study was provided and the proposed hypotheses were established. The chapter also highlighted the research methodology that was used in the study.

Chapter two provided a brief overview on the tourism industries. It was established that there are seven sectors in the tourism industry and from all these sectors the transport sector, airport transport specifically, was the one relevant for this study. Literature on the four main characteristics of a service product; intangibility, inseparability, heterogeneity

and perishability were provided. From the literature on the service products characteristics it was clear that service quality was important. Service quality was discussed, where it was established that service quality plays a key role in determining the satisfaction level of a customer. The literature also established that the level of customer satisfaction was dependent on the service quality dimensions which include tangibility, reliability, responsiveness, assurance, empathy, complaint handling, and convenience.

Chapter three focused on providing an overview of the research design and methodology that was used for the study and the reason behind the selected methodology. The study was established to carry out a quantitative research and study was going to be done by using a sample size of approximately 200 respondents. To ensure that the research instruments used in the study were reliable, and initial reliability was ensured by carrying out a pilot study which entailed handing out the questionnaires to a sample of 30 respondents. After the pilot study was done, some items loaded onto various factors and the questionnaire was hence rearranged based on the pilot study findings.

Chapter four presented the data obtained from data collected for the study. The chapter began by providing the demographic findings of the study. The chapter also tested the correlation empirically between the independent variables (service quality dimensions) and the dependent variable (customer satisfaction). The findings of the tests were presented in using tables and figures. Reliability and validity tests were done on the items used for the questionnaire. An exploratory factor analysis was done to identify factors with Eigenvalues greater than one and to confirm constructs based on a cut-off point of 0.4 for minimal factor loading to determine validity.

A Cronbach's alpha coefficient test was also conducted to determine the reliability of the retained variables with a cut-off point of 0.7 deemed reliable. To determine the relationship between the variables, correlations on the retained variables were calculated, of which most of these variables had moderate to large correlations. Lastly the results of the multiple regression were performed to identify which of the proposed hypothesis of

this study were supported or not supported. Four (tangibility, assurance, empathy and convenience) out of the seven service quality dimensions were found to influence customer satisfaction at the PEIA.

This chapter will first discuss how the various objectives of this study were attained. Based on the findings of the research, conclusions will be drawn, and recommendations will be provided. Lastly, the contributions and limitations of this study will be highlighted, and the concluding remarks will be given.

### 5.3 HOW OBJECTIVES OF THIS STUDY WERE MET

Table 5.1 depicts how the study objectives of this study were met.

**Table 5.1: How the study objectives were achieved**

Study objectives	How and where these were achieved
<i>To describe current customer satisfaction levels at the PEIA</i>	This was achieved in chapter four. Table 4.13 depicts that on average (mean score of 3.87) customers were satisfied with the services they received at PEIA.
<i>To establish the factors that influence customer satisfaction at the PEIA</i>	This was achieved in chapter four. Table 4.16 depicts that the service quality dimensions tangibility, assurance, and empathy and convenience effect customer satisfaction at PEIA in this study.
<i>To develop a well-informed customer satisfaction model that the PEIA can employ to enhance its performance</i>	This was achieved in chapter four. Figure 4.1 illustrates which service quality dimensions PEIA must focus on in order to improve customer satisfaction.

Table 5.2 depicts how the methodological objectives of this research were met.

**Table 5.2: How the methodological objectives were met**

<b>Methodological objectives</b>	<b>How and where these were achieved</b>
<i>To undertake a theoretical investigation of the influence of service quality dimensions on customer satisfaction</i>	This was achieved in chapter two by conducting an in-depth literature review on the influence of service quality dimensions on customers satisfaction at PEIA.
<i>To undertake a hypothesized model that reflects the relationship between the independent variables (Tangibility, Reliability, Responsiveness, Assurance, Empathy, Convenience and Complaint Handling) and the dependent variable (Customer satisfaction)</i>	This was achieved in chapters one and four. Chapter four operationalised the hypothetical model in chapter one. The hypothetical model presented 7 sets of hypotheses.
<i>To determine the appropriate research methodology to address the identified research problem and research objectives</i>	This was achieved in chapter one and then elaborated in chapter three. The various steps in the research process were discussed and reasons were given for the selection of the chosen research methods.
<i>To develop an appropriate measuring instrument that shall be used to empirically test the influence of the independent variables on the dependent variable</i>	This was achieved in chapter one and then elaborated in chapter three. A questionnaire was created through the use of items which were identified from the literature.
<i>To source primary data from a pre-determined sample of customers who have ever visited the PEIA and to statistically analyse the data, as well as set test the proposed hypothesis</i>	This was achieved in the data collection process; a total of 203 respondents formed part of this study, and the findings are discussed in chapter four.
<i>To provide conclusions and recommendations based on the finding of this research, which could assist the PEIA in ultimately improving their service quality by adopting the appropriate customer satisfaction model</i>	This was achieved in this chapter where possible recommendations were provided to improve customer satisfaction at PEIA based on the main empirical and literature findings of this study.

Tables 5.1 and 5.2 provided an overview of the study objectives and methodology of this study, and a brief explanation of how these objectives were achieved. The following section discusses the conclusions and recommendations of the study.

## 5.4 CONCLUSIONS AND RECOMMENDATIONS

The previous sections highlighted an overview of each chapter and how the objectives of the study were met or dealt with. The main aim of the study was to determine the influence of the seven service quality dimensions on customer satisfaction at the PEIA. In the sections that follow, conclusions shall be made from the results and literature chapters and recommendations provided. Conclusions and recommendations will first be provided on the service quality dimensions that influence the level of customer satisfaction at the PEIA.

### 5.4.1 Conclusions and Recommendations of Statistically Significant Relationships for Customer Satisfaction

Four significant relationships were found between *tangibility*, *assurance*, *empathy* and *convenience* and customer satisfaction at PEIA.

#### 5.4.1.1 Tangibility

*Tangibility* ( $H_1$ ) presented a weak statistically significant relationship with *customer satisfaction* at PEIA. Customers therefore perceive *tangibility* as influential in the attainment of customer satisfaction at PEIA.

From the empirical results, it seems that in order for PEIA to improve customer satisfaction, it is important for the airport to provide an atmosphere that is comfortable, equipment that is in good condition and to ensure that the airport is visually appealing to its customers. According to Smahel (2017:34), an airport that is designed to improve service delivery and creates a comfortable atmosphere will enhance customer satisfaction. Furthermore, customers expect airports to have facilities that are modern looking and to provide sufficient equipment capable of meeting customer requirements (Hussin *et al.* 2017:7).

To strive towards customer satisfaction, it is therefore recommended that the PEIA:

- introduce tasteful flower arrangements and colour schemes to give the airport a high-class/ bright feel (atmosphere);



- remove obstacles such as the wrapping services and the SSTs that block passenger flow. This will ensure that wayfinding in the airport is simple. This can be done by having an office where the wrapping services are provided, putting the SSTs at one area of the airport to avoid commotion;
- increase the amount of natural light in the airport to give the terminal a brighter, and airy feel. This can be done by putting more windows or transparent ceilings which can enable sun light inside the airport buildings (atmosphere); and
- use RCA (Root Cause Analysis) to identify the causes of why a certain piece of equipment is failing. Thereafter, try to eliminate or mitigate each of the items causing equipment to fail or malfunction. This method is relatively cheap, and a large amount of money does not need to be spent on training or software

#### **5.4.1.2 Assurance**

*Assurance* ( $H_4$ ) presented a weak statistically significant relationship with *customer satisfaction* at PEIA. Customers therefore perceive *assurance* as influential in the attainment of customer satisfaction at PEIA.

From the empirical results, it seems that in order for PEIA to improve customer satisfaction, it is important for the airport to have employees that are knowledgeable enough to answer customer questions and aid the specific needs of customers. In addition, the airport should ensure that employees are easy to find on the airport floor and to have employees that convey trustworthiness when providing services to customers. According to Subha *et al.* (2013:30), customers expect employees to be helpful, capable, and respectful, to understand their specific needs and to provide information that is clear and correct. Furthermore, even though airports are becoming more techno savvy, the personal interaction between customer and airport employee still needs to be given attention as it arguably has the most significant impact on customer satisfaction (Subha *et al.* 2013:30).

To strive towards customer satisfaction, it is therefore recommended that the PEIA:

- provide customer service training programmes to employees. This will ensure that services provided by airport employees are consistent and in adherence with service standards of the airport. In a country as diverse as South Africa, training in different languages will help airport employees to converse with more people and seem more trustworthy to the diverse groups of people within the country;
- provide an airport orientation programme to all employees. This will educate all employees at the airport on matters of importance that extend beyond the limited scope of their jobs;
- monitor and manage the performance of staff. Distribute customer satisfaction surveys to assess the overall level of customer satisfaction at PEIA. These can then be used to address areas of weakness and highlight any concerns that customers have;
- implement mystery shopping. This can be used to track and measure the performance of airport staff. Mystery shoppers are unknown to the airport employees and they evaluate the service provided in line with acceptable standards or service. The results of each mystery shopper can then be reported to the appropriate supervisor and their behaviour can then be immediately corrected or celebrated;
- use rewards, recognition, and incentives to motivate energize, and engage with airport employees. This can be used to improve employee job satisfaction and customer satisfaction. It can also help retain quality employees and reduce turnover due to poor performance; and
- hire “Roving” ambassadors or customer service ambassadors. They should be employed to move about the airport terminal during peak travel times to help with queues, respond to inquiries, assist with wayfinding and to respond to requests during irregular operations. This can be seen in the Indianapolis International Airport (IIA) which was the first airport in the United States of America to make use of roving ambassadors.

#### **5.4.1.3 Empathy**

*Empathy* ( $H_5$ ) presented a weak statistically significant relationship with *customer satisfaction*. Customers and tourists therefore perceive *empathy* as influential in attaining customer satisfaction at the PEIA.

From the empirical results, it seems that for the PEIA to provide satisfying services to its customers, it is important to provide information to customers when flights are delayed and ensure that the security screening measures are properly done with dignity. Various researchers (Alards-Tomalin, Ansons, Reich, Sakamoto, Davie, Leboe-McGowan & Leboe-McGowan 2014:61) stated that passengers who undergo the airport security screening measures have a strong relationship between safety and justice and their levels of satisfaction. These researchers also stated that if security screening is done with dignity using most preferably body scanning, then there is a higher level of perceived customer satisfaction at the airports. According to Baranishyn, Cudmore and Fletcher (2010:203), providing information to customers regarding any delay or flights is important in reassuring the customers and increasing their levels of satisfaction.

To strive towards customer satisfaction at the PEIA, it is therefore recommended that the airport in-conjunction with airlines:

- takes care of all necessary arrangements for customers having connecting flights. This is done by the airport contacting the other airports where the connecting flights shall be to inform them of any possible flight delays coming from the PEIA;
- sends messages (through emails and/or SMS) timely and on an updated basis to the concerned customers regarding any possible delays in flights; and
- provide customers with information regarding what should be done in case of any delays and how the delay shall be catered for. Such information shall enable the customers to stay calm and help them in knowing what procedures to follow in tackling the delays.
- provides professional training to all its staff with regards to proper security protocols to enable staff to keep customers safe and secure;
- avoids the use of security screening measures that make the customers feel humiliated. This can be done by making use of body scanning technology over pat-downs;

- informs or remind customers (through emails or SMS) before they come to the airport of all the items which are a threat to transportation security and dangerous items which are prohibited in the airport or the aircraft; and
- acquires adequate and up-to-date screening technology presently used by most international airport to manage security screening. The PEIA can do this by installing the “Syntech ONE 200” which is an artificial intelligence technology that enables baggage screening to be done on multiple passenger lanes at once. This technology shall permit the airport to identify illegal items effectively. This technology is used in the Osaka International airport.

#### **5.4.1.4 Convenience**

*Convenience* ( $H_7$ ) presented a weak statistically significant relationship with *customer satisfaction*. Customers and tourists therefore perceive *convenience* as influential in attaining customer satisfaction at the PEIA.

From the empirical results, it seems that for PEIA to satisfy its customers, it is important to provide a variety of stores, have a variety of financial services available for the customers and ensure that information is easily obtainable by customers. Drennen (2011:13) states that customers are satisfied with an airport when they can easily get the information they need at the moment. The researcher goes further to state that the self-service technology (SST) can be used in providing such information to customers even when there are minimum staff at the airport (especially in overnight sessions). Kamarudin (2015:10) states that customers tend to appreciate the airports having a variety of shopping options (retail and food and beverage offerings) as it increases their level of satisfaction. This is the case as most often, customers do not buy anything before going to the airports since they expect to make the purchases there. The availability of certain services such as currency exchange, ATMs, and other financial service providers are also in high demand in airports by customers and hence the availability of such shall lead to customer satisfaction (Boudreau, Detmer, Tam, Box, Burke, Paternoster & Carbone 2016:128).

To strive towards customer satisfaction at the PEIA, it is therefore recommended that the airport;

- opens a variety of essential stores (clothing, souvenirs, snacks, accessories) and restaurants to avoid crowding at stores or restaurants and to provide various options to the customers.

To strive towards customer satisfaction at the PEIA, it is therefore recommended that the airport together with the financial service providers:

- open branches of their financial services at the airport since the airport already has financial service (ATMs). This can enable the customers to get certain services which can be only acquired in the offices such as getting a bank card.

To strive towards customer satisfaction at the PEIA, it is therefore recommended that the airport:

- have information desks at all the entrances of the airport and not only at the arrival section as is the case; and
- have more SSTs (information screens) where customers can check not only on the check in zones but also on where various services can be found at the airport.

## **5.5 CONTRIBUTION TO THE STUDY**

To get more knowledge about the PEIA, the study focused on identifying the various service quality dimensions that influence customer satisfaction at the airport. Firstly, the study attempted to discover the extent to which the service quality dimensions influenced customer satisfaction in the PEIA and secondly; establishing what service quality dimensions are, forming an in-depth understanding of what service quality dimensions entail and how they affect the overall customer satisfaction of the PEIA.

The aim of the study was to acquire and add more information as to customer satisfaction at the PEIA. This was because there was little information that focused on the various service quality dimensions that influenced customer satisfaction at the PEIA. This study offered great potential such as assisting the PEIA with regard to providing adequate

service for customer satisfaction. By understanding the importance of the service quality dimensions, a solution could be provided to customers and consequently, improve customer satisfaction in the PEIA. The results and recommendations can lead to the airport becoming more efficient and has the potential to increase the economic benefit the airport can have in the Eastern Cape.

In the next section the self-reflection on the knowledge acquired and the lessons learnt throughout the research process will be presented.

## **5.6 SELF-REFLECTION**

This exploratory study has posed an in-depth perspective into which service quality dimensions influence customer satisfaction at the PEIA and it provides a basis for further studies. The study gave the researchers an opportunity to explore the fields of customer satisfaction and service quality dimensions in depth and formulate a hypothesised model that was tested empirically.

On an academic level, the study allowed the researchers to gain knowledge about the tourism industry, the various sectors which are found in this industry and all the other topics which were covered in chapter two of the study. On a personal level it can be said that the research enabled the researchers to understand why certain services at the airport are important in making or satisfying the customers. Practically, the research process provided the researchers an opportunity to know how to work as a group and manage their time.

The research process also gave the researchers an opportunity to gain knowledge on how to carry out a research and how to determine or decide on the appropriate sample size for the research. The research also enhanced the researchers academic writing skills and analytical skills which came from the literature review and data analysis sections of the study. The researchers also learned how to get their raw data tested using the statistical programme and what the results of the analysis meant.

## **5.7 LIMITATIONS OF THE STUDY**

This study attempted to make a significant contribution to the field of tourism, especially regarding the state of customer satisfaction at PEIA. However, the following limitations became evident while conducting this study. The demographic representation in this study could be seen as a limitation in terms of citizenship and employment status. The results indicated that 73% of respondents were South African, while 27% of the sample were foreign citizens. Therefore, this sample does not represent foreign citizens sufficiently. In addition to this, only 9% of respondents were not from the African continent. Therefore, respondents from outside of Africa are also not sufficiently represented.

The convenience sampling technique used in this study proved to be a limitation. While convenience sampling was appropriate for this study, it was associated with the following shortcomings, such as not being a representative sample of everyone that has used PEIA. Additionally, convenience sampling could also result in sampling bias by the researchers. As a result, the researchers cannot say the finding in this apply to all people that have ever used PEIA.

Despite these limitation, this exploratory study offers a valuable contribution to the literature on the influence of service quality dimension on customer satisfaction at the PEIA. Taking this into consideration, the opportunities for future research will be offered in the next section.

## **5.8 RECOMMENDATIONS FOR FUTURE STUDIES**

From the findings and conclusions drawn from the research, the following recommendations are provided for future studies:

- The study could be extended to the other international airports in South Africa using the same measuring instruments.
- The study could also look at the influence of the service management (manager's decisions) on customer satisfaction.
- The study could be extended to see the influence of the service quality dimensions in a greater extent such as in the aircrafts.

- A study could be done on how the other three service quality dimensions (*reliability*, *responsiveness* and *complaint handling*) can be enhanced to have a strong influence on customer satisfaction at the PEIA.
- The study could be extended to look at the influence of service quality dimensions on other service providers.

In the next section, the closing or concluding remarks of the study shall be presented.

## **5.9 CONCLUDING REMARKS**

The primary objective of the study was to determine the service quality dimensions which influence customer satisfaction at the PEIA. The study also identified which the degree to which customers view the service quality dimensions as important role players in ensuring that they are satisfied at the airport. It was eminent from the results that four service quality dimensions influence the level of customer satisfaction at the PEIA (*assurance*, *convenience*, *empathy*, and *tangibility*). These dimensions therefore proof that service quality dimensions play a role in affecting the level of satisfaction of customers at the PEIA.



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## ANNEXURE 1



Unit for Applied Management Sciences  
Summerstrand South Campus  
DEPARTMENT OF MARKETING MANAGEMENT  
Tel. +27 (0) 41 5044835  
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Danie.ferreira@mandela.ac.za

27 June 2019

### THE INFLUENCE OF THE SERVICE QUALITY DIMENSIONS ON CUSTOMER SATISFACTION AT PORT ELIZABETH INTERNATIONAL AIRPORT

Dear respondent

We are B Com (Hons) students conducting research on the influence of the service quality dimensions on customer satisfaction at the Port Elizabeth International Airport. We are collecting information in the form of a survey to gauge the perceptions of the respondents regarding customer satisfaction at the Port Elizabeth International Airport. The study will provide insight into how to increase and manage customer satisfaction. All data sources will be treated as confidential and would be used for research purposes only. Most of the data will be reported in statistical form and no individual respondents will be identified. You can complete the questionnaire anonymously. The questionnaire will take about 10 minutes to complete.

The questionnaire comprises of two sections:

- **Section A** canvasses demographic information
- **Section B** investigates service quality dimensions
- **Section C** explores customer satisfaction

Your cooperation is greatly appreciated.

Sincerely

Mr A Tamajong Frunueh

Mr A October

Dr D Ferreira

**STUDENT**

**STUDENT**

**SUPERVISOR**

**SECTION A: DEMOGRAPHIC INFORMATION**

Please indicate your choice by means of an (X).

<b>1. Citizenship</b>	
South African citizen	1
Foreign citizen	2

<b>2. Please indicate on which continent you reside on</b>	
Africa	1
Antarctica	2
Asia	3
Australasia	4
Europe	5
North America	6
South America	7

<b>3. Gender</b>			
Female	1	Male	2

<b>4. Age group (in years)</b>			
18-25	1	46-55	4
26-35	2	56-65	5
36-45	3	66+	6

<b>5. Home language</b>			
Afrikaans	1	Xhosa	3
English	2	Zulu	4
Other Specify			5

<b>6. Employment status</b>			
Full-time employed	1	Retired	4
Part-time employed	2	Student	5
Self-employed	3	Unemployed	6

<b>7. Education</b>			
School exit level certificate	1	Degree	4
Certificate	2	Post-graduate degree/ diploma	5
Diploma	3		

**SECTION B: Service quality dimensions**

	Indicate your level of agreement or disagreement with the following statements regarding PE Airport and their employees.  Please indicate your choice by means of an (X).	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	<b>Reliability</b>					
BR1	The atmosphere of the airport was comfortable (familiarity)	5	4	3	2	1
BR2	Employees show high levels of skill when dealing with customers	5	4	3	2	1
BR3	Check-in process was done efficiently	5	4	3	2	1
BR4	Services performed by check-in employees were consistent	5	4	3	2	1
BR5	Employees try to mitigate complaints	5	4	3	2	1
BR6	Customers' needs are the main priority of the employees	5	4	3	2	1
	<b>Tangibility</b>					
BT1	Equipment used by the airport was in good condition	5	4	3	2	1
BT2	The airport employees are suitably dressed and neat	5	4	3	2	1
BT3	The airport is visually appealing	5	4	3	2	1
	<b>Responsiveness</b>					
BRS1	Employees are quick to respond to customer requests	5	4	3	2	1
BRS2	Employees respond timeously to service failures	5	4	3	2	1
BRS3	Employees are polite	5	4	3	2	1
BRS4	Employees are always available to respond to customers' requests	5	4	3	2	1
	<b>Assurance</b>					
BA1	The airport had well designed information displays	5	4	3	2	1
BA2	The services provided by the airport are of acceptable standard	5	4	3	2	1
BA3	The employees are knowledgeable enough to answer customers' questions	5	4	3	2	1
BA4	Employees can effectively communicate with customers	5	4	3	2	1
	<b>Empathy</b>					
BE1	Employees provide customers with individual attention	5	4	3	2	1
BE2	Employees aid the specific needs of customers	5	4	3	2	1
BE3	Airport employees are accommodating to customers' requests	5	4	3	2	1
BE4	The services at the airport operate at convenient hours	5	4	3	2	1
BE5	Employees handle complaints as fast as possible	5	4	3	2	1
BE6	Communicate with customers when flights are delayed	5	4	3	2	1
BE7	Proper security screening measures was implemented	5	4	3	2	1
BE8	Security screening was done with dignity	5	4	3	2	1
BE9	Basic facilities such as bathrooms was available	5	4	3	2	1
	<b>Complaint Handling</b>					
BCH1	Employees are easy to find on the airport floor	5	4	3	2	1
BCH2	Employees are perceived to be trustworthy	5	4	3	2	1

	Indicate your level of agreement or disagreement with the following statements regarding PE Airport and their employees.  Please indicate your choice by means of an (X).	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
BCH3	Airport staff inform customers that their complaints have been received	5	4	3	2	1
BCH4	Airport staff provide customers with feedback about complaints	5	4	3	2	1
BCH5	Corrective actions are taken by airport staff in response to complaints	5	4	3	2	1
	<b>Convenience</b>					
BC1	The airport has a variety of stores	5	4	3	2	1
BC2	Financial services are easily accessible at the airport	5	4	3	2	1
BC3	Information is easily obtained at the airport	5	4	3	2	1
BC4	Employees are approachable	5	4	3	2	1

#### SECTION C: Customer satisfaction

	Indicate your level of agreement or disagreement with the following statements regarding Customer Satisfaction  Please indicate your choice by means of an (X).  Overall I was satisfied with .....	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
CS1	the level of service delivery at the airport	5	4	3	2	1
CS2	the quality of services rendered at the airport	5	4	3	2	1
CS3	the cleanliness at the airport	5	4	3	2	1
CS4	the employee involvement of the airport	5	4	3	2	1
CS5	the functionality of the equipment at the airport	5	4	3	2	1
CS6	the availability of essential services (prayer rooms, eateries, airline offices and airport lounge)	5	4	3	2	1

Thank you for your time



## ANNEXURE 2

### NELSON MANDELA UNIVERSITY

#### FACULTY OF BUSINESS AND ECONOMIC SCIENCES

#### ETHICS CLEARANCE FOR TREATISES / DISSERTATIONS / THESES

Instructions:

- Should be completed by supervisor and student
- Must be signed off by student, supervisor and HoD
- Submit completed form to Ms Lindie van Rensburg
- Please ensure that the research methodology section from the proposal is attached to this form
- *Please note that by following this Proforma ethics route, the study will NOT be allocated an ethics clearance number*

FACULTY: Business and Economic Sciences

SCHOOL / DEPARTMENT: Business management

I, Ferreira, DP

the supervisor for OCTOBER, A (s210085665) ; TAMAJONG, F.A (s216974623)

candidates for the degree of B Com Honours

with a treatise/dissertation/thesis entitled (full title of treatise/dissertation/thesis):

CUSTOMER SATISFACTION AT PORT ELIZABETH AIRPORT

considered the following ethics criteria (please tick the appropriate block):

		YES	NO
1.	Is there any risk of harm, embarrassment of offence, however slight or temporary, to the participant, third parties or to the communities at large?		X
2.	Is the study based on a research population defined as 'vulnerable' in terms of age, physical characteristics and/or disease status?		X
2.1	Are subjects/participants/respondents of your study:		
2.1.1	Children under the age of 18?		X
2.1.2	NMMU staff?		X
2.1.3	NMMU students?		X
2.1.4	The elderly/persons over the age of 60?		X
2.1.5	A sample from an institution (e.g. hospital/school)?		X
2.1.6	Handicapped (e.g. mentally or physically)?		X
3.	Does the data that will be collected require consent of an institutional authority for this study? (An institutional authority refers to an organisation that is established by government to protect vulnerable people)		X

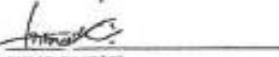
3.1	Are you intending to access participant data from an existing, stored repository (e.g. school, institutional or university records)?		X
4.	Will the participant's privacy, anonymity or confidentiality be compromised?		X
4.1	Are you administering a questionnaire/survey that:		
4.1.1	Collects sensitive/identifiable data from participants?		X
4.1.2	Does not guarantee the anonymity of the participant?		X
4.1.3	Does not guarantee the confidentiality of the participant and the data?		X
4.1.4	Will offer an incentive to respondents to participate, i.e. a lucky draw or any other prize?		X
4.1.5	Will create doubt whether sample control measures are in place?		X
4.1.5	Will be distributed electronically via email (and requesting an email response)?		X
	<p>Note:</p> <ul style="list-style-type: none"> <li>If your questionnaire DOES NOT request respondents' identification, is distributed electronically and you request respondents to return it <i>manually</i> (print out and deliver/mail); AND respondent anonymity can be guaranteed, your answer will be NO.</li> <li>If your questionnaire DOES NOT request respondents' identification, is distributed via an email link and works through a web response system (e.g. the university survey system); AND respondent anonymity can be guaranteed, your answer will be NO.</li> </ul>		
5.	Do you wish to publish an article from this study and submit to an accredited Journal?		X

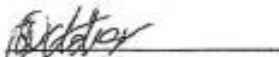
Please note that if ANY of the questions above have been answered in the affirmative (YES) the student will need to complete the full ethics clearance form (REC-H application) and submit it with the relevant documentation to the Faculty RECH (Ethics) representative.

and hereby certify that the student has given his/her research ethical consideration and full ethics approval is not required.

  
SUPERVISOR(S)

  
HEAD OF DEPARTMENT

  
STUDENT(S)

  
STUDENT(S)

25/4/2019  
DATE

26/04/2019  
DATE

25/4/2019  
DATE

25/4/2019  
DATE

ANNEXURE 3

